

## Education as a Driver of Climate Resilience in Fiji: Integrating Climate Literacy, Indigenous Knowledge, and 21st-Century Competencies

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### ABSTRACT

Climate change poses profound and escalating challenges for Fiji, affecting livelihoods, infrastructure, and social systems, including education. This paper examines the role of education as a critical driver of climate resilience by analysing how climate literacy, indigenous knowledge systems, and 21st-century competencies can be integrated to strengthen Fiji's capacity to adapt to a rapidly changing environment. Drawing on regional policy frameworks, global climate education literature, and Pacific epistemologies, the paper argues that Fiji's education system is uniquely positioned to generate long-term resilience through transformative teaching, culturally grounded knowledge, and future-focused skills development. It highlights how climate change directly disrupts learning, through displacement, extreme weather events, infrastructure vulnerabilities, and socio-economic pressures, while also demonstrating that well-designed education can empower communities with adaptive knowledge, problem-solving abilities, and intergenerational resilience. The analysis reveals that meaningful reform requires a synthesis of scientific climate literacy with indigenous ecological wisdom, supported by teacher capacity-building, curriculum reform, and community engagement. The paper concludes that repositioning education as a strategic climate adaptation tool is essential for Fiji's sustainable development, national security, and the wellbeing of present and future generations.

**Keywords:** Fiji; climate resilience; climate literacy; indigenous knowledge; 21st-century competencies; education reform; Small Island Developing States (SIDS); climate adaptation; Pacific education; sustainability.

### INTRODUCTION

Fiji, like many Small Island Developing States (SIDS), faces disproportionate climate vulnerabilities that threaten its environment, economy, and social fabric. Rising sea levels, increasingly severe cyclones, flooding, coastal erosion, and saltwater intrusion have intensified over the past two decades, placing immense pressure on communities and critical systems including education. According to the Intergovernmental Panel on Climate Change, SIDS in the Pacific are among the regions most exposed to climate-induced disruptions, with children and young people facing heightened risks to safety, health, and continuity of learning (IPCC, 2022). For Fiji, where many schools are situated in low-lying coastal zones or remote maritime regions, the impacts of climate change are not abstract projections but lived daily realities.

The relationship between education and climate change operates bi-directionally. On one hand, climate change undermines educational access and quality through school closures during cyclones, damage to infrastructure,

displacement of families, economic hardship, and psychosocial stress. UNICEF (2021) notes that climate shocks in the Pacific have repeatedly interrupted learning trajectories and widened inequities, particularly for rural, maritime, and socio-economically disadvantaged communities. On the other hand, education has the transformative potential to strengthen national and community resilience by equipping learners with knowledge, skills, values, and competencies essential for adaptation and sustainable decision-making. UNESCO (2023) highlights that climate education, especially when integrated across subjects and anchored in local context, empowers young people to understand environmental risks, engage in problem-solving, and participate actively in community-based adaptation efforts.

In Fiji, the centrality of education to climate resilience is increasingly recognised in national and regional frameworks. The Pacific Regional Education Framework positions education as a key enabler of sustainable development, calling for strengthened climate literacy, resilience-oriented pedagogy, and culturally grounded

learning (Pacific Community & Pacific Islands Forum Secretariat, 2020). At the national level, Fiji's Climate Change Act 2021 emphasises the need for climate-responsive education systems that integrate environmental knowledge, sustainable practices, and community engagement. This legislative direction reflects a growing consensus that schools are not merely sites of learning, but critical institutions for safeguarding collective wellbeing and fostering long-term resilience.

A uniquely important dimension of climate resilience in Fiji is the role of indigenous knowledge. Indigenous Fijian (iTaukei) ecological knowledge, built over generations of intimate interaction with land, ocean, and seasons, offers deeply contextual insights into weather patterns, resource management, and adaptation strategies. Scholars such as Nabobo-Baba (2006) and Vaioloti (2013) argue that Pacific Indigenous Knowledge Systems embody relational, ecological, and experiential worldviews that can significantly enhance contemporary climate adaptation practices. When embedded within formal education, indigenous knowledge enriches scientific understanding, strengthens cultural identity, and fosters intergenerational stewardship of the environment. This aligns with the broader call for "cultural democracy" in Pacific education articulated by Thaman (2003), who argues that curricula must reflect and respect local epistemologies to remain relevant and transformative.

At the same time, building climate resilience for the 21st century requires competencies that extend beyond traditional content knowledge. The changing climate demands that learners develop critical thinking, problem-solving, collaboration, digital literacy, and innovation, competencies widely recognised as essential for navigating complex environmental and technological landscapes. The World Economic Forum (2020) emphasises that these competencies underpin adaptive capacity and future workforce readiness, both of which are vital in climate-affected economies. For Fiji, developing such competencies is not just an educational aspiration, but a socio-economic necessity as communities grapple with livelihood transitions, disaster preparedness, and climate-responsive planning.

Education, therefore, emerges as a pivotal arena where global scientific understanding, indigenous ecological wisdom, and 21st-century competencies converge. Yet, significant challenges persist. Research by Lingam and Sharma (2022) highlights gaps in teacher preparedness, uneven access to climate education materials, and limited integration of cultural knowledge in classroom practice. Moreover, infrastructural vulnerabilities, worsened by frequent cyclones, continue to disrupt learning continuity, particularly in rural and maritime schools. These challenges underscore the urgent need for an expanded, contextually grounded educational response that fully recognises the complexities of climate change in Fiji.

This paper argues that education must be repositioned as a strategic engine for climate resilience in Fiji. It proposes that the integration of climate literacy, indigenous knowledge systems, and 21st-century competencies within educational policy, curriculum, and practice can create powerful pathways toward sustainable, climate-resilient futures. By analysing existing frameworks, identifying gaps, and highlighting areas for reform, the paper demonstrates that education is not merely impacted by climate change, but can actively shape adaptive capacity, community empowerment, and national resilience. In doing so, the paper contributes to growing scholarship that frames education as both a protective factor and a catalyst for climate action, particularly within vulnerable SIDS contexts.

### **Literature Review and Identified Gaps**

The intersection of education and climate change has become an increasingly urgent focus in global and regional research, particularly for climate-vulnerable nations such as Fiji. According to UNESCO (2016), education plays a pivotal role in strengthening adaptive capacities by equipping learners with the knowledge, skills, values, and attitudes necessary to navigate environmental uncertainty. In the Pacific, this relationship is especially significant because climate change directly threatens ecosystems, livelihoods, infrastructure, and cultural continuity (Nunn & Kumar, 2018). Consequently, contemporary scholarship increasingly positions education not only as a sector impacted by climate change but also as a proactive driver of climate resilience and community adaptation.

### **Climate Change and Education: Global Perspectives**

Global literature consistently underscores education's transformative potential in climate resilience. Scholars such as Monroe et al. (2019) argue that climate literacy enhances citizens' capacity to interpret scientific information, participate in environmental decision-making, and take responsible action. The Intergovernmental Panel on Climate Change (IPCC, 2022) similarly emphasizes the need for education systems to embed climate-responsive pedagogy across formal, non-formal, and informal learning spaces to support behavioural change and long-term adaptation. Studies from climate-affected nations, including Bangladesh, the Philippines, and small island states in the Caribbean, show that education significantly influences community preparedness, early-warning responsiveness, sustainable resource practices, and youth leadership in climate activism (Rahman & Huq, 2021; Haynes et al., 2020).

Despite these global efforts, scholars caution that education systems often remain disconnected from local realities. Sterling (2014) observes that many curricula emphasize cognitive understanding while underemphasizing socio-cultural, ethical, and action-oriented dimensions of climate literacy. This includes limited integration of indigenous knowledge systems, weak teacher capacity, and insufficient community involvement in school-based climate action.

### **Pacific and Fijian Context: Climate Vulnerability and Education's Role**

Pacific scholars emphasize that climate change is a lived, daily reality, affecting coastal erosion, agricultural patterns, food security, water availability, housing stability, and the continuity of cultural identity (Koya & Prasad, 2021; Nunn, 2019). In Fiji specifically, climate change intensifies existing socio-economic inequalities, disrupts schooling during disasters, and threatens the safety and continuity of schooling in rural and maritime communities. According to the Ministry of Education (MOE, 2021), schools in flood-prone and cyclone-prone regions have been repeatedly damaged or used as evacuation centres, interrupting learning and undermining infrastructure resilience.

Education's contribution to climate resilience has been increasingly recognized in Fiji's policy landscape. The National Climate Change Policy (Government of Fiji, 2018) highlights education as a strategic pillar for building adaptive capacity through climate change awareness, sustainable practices, and community engagement. Similarly, regional frameworks such as the Framework for Resilient Development in the Pacific (SPC, SPREP & PIFS, 2016) call for education systems to support resilience through locally grounded, culturally relevant learning.

Despite these policy commitments, implementation challenges persist. According to Nabobo-Baba (2016), Pacific education systems too often prioritize externally driven, Western-centric curricula, which marginalize indigenous ecological knowledge and weaken community-based approaches that previously contributed to environmental stewardship. In Fiji, scholars such as Prasad and Narayan (2022) highlight a lack of consistent teacher training in climate-related content, uneven distribution of resources, and weak curriculum integration, particularly at primary and secondary levels.

### **Climate Literacy, Indigenous Knowledge, and 21st-Century Competencies**

Climate literacy provides learners with an understanding of the causes, consequences, and mitigation of climate change. However, research demonstrates that knowledge alone is insufficient to drive adaptive practice (Anderson, 2012).

Therefore, integrating indigenous knowledge systems is essential for contextualizing learning within Pacific epistemologies. Pacific scholars such as Gegeo and Watson-Gegeo (2017) and Koya (2012) argue that indigenous knowledge offers place-based ecological wisdom, sustainable resource management practices, and community resilience strategies, many of which have supported Pacific communities for centuries.

At the same time, the 21st-century skills agenda, encompassing critical thinking, problem-solving, collaboration, creativity, and digital literacy, forms an essential component of climate-responsive education. According to Trilling and Fadel (2009), these skills prepare learners not only to adapt to climate impacts but also to innovate solutions. For Fiji's youth, such competencies are vital for navigating labour markets increasingly influenced by climate adaptation industries, renewable energy sectors, sustainable agriculture, and environmental governance.

Few studies explore how these three domains, climate literacy, indigenous knowledge, and 21st-century competencies, can be integrated within a single educational framework. Most analyses focus on one domain at a time, resulting in fragmented approaches. This gap limits Fiji's capacity to mobilize a holistic, culturally rooted, future-oriented education system that responds to both immediate climate threats and long-term adaptation needs.

### **Constraints in Fijian Educational Practice**

Several practical constraints impede effective climate-responsive education in Fiji. First, teacher capacity is inconsistent. Research by Khan and Lingam (2021) indicates that many teachers feel underprepared to teach climate change due to limited training, lack of resources, and insufficient content knowledge. Second, equity challenges remain prominent. Students in rural and maritime areas have limited access to climate education resources, digital tools, science laboratories, and professional support services (MOE, 2021).

Third, curriculum integration remains uneven. While environmental science content appears in certain subjects, it is often theoretical and lacks practical, community-based components that build real-world skills. Fourth, there is limited research on how climate education intersects with cultural identity, indigenous practices, and local notions of resilience, an important omission considering Fiji's diverse cultural landscape.

### **Gaps in Existing Research**

Despite growing scholarship, several key gaps remain:

### **Limited integration of indigenous knowledge into climate education.**

Although Pacific scholars emphasize cultural relevance, there is insufficient empirical research on how indigenous ecological knowledge can be systematically integrated into the Fijian school curriculum.

### **Lack of a holistic framework combining climate literacy, indigenous knowledge, and 21st-century competencies.**

Current studies address these domains separately, with minimal exploration of how they can be woven together to enhance climate resilience at school, household, and community levels.

### **Insufficient teacher capacity research and professional development models.**

Few studies offer practical, scalable models for teacher training that reflect Fiji's socio-cultural realities and resource constraints.

### **Limited attention to rural and maritime education inequalities.**

Existing literature rarely disaggregates the unique challenges faced by schools in outer islands, flood-prone regions, and remote areas.

### **Minimal youth-centred research.**

There is an emerging but insufficient body of research examining how young people in Fiji conceptualize climate resilience, exercise agency, and engage in climate action.

### **Lack of empirical studies evaluating the effectiveness of climate education initiatives.**

Many policies and projects exist, but few have been systematically monitored or evaluated.

### **The Role of Indigenous Knowledge and Culture in Mitigating the Impacts of Climate Change on Education**

Indigenous knowledge (IK) and cultural values play a decisive and multidimensional role in strengthening educational resilience in climate-vulnerable contexts such as Fiji. Climate change affects not only infrastructure and learning continuity but also the cultural and ecological systems that sustain Pacific communities. As a result, IK and culture are increasingly recognized as essential assets that can mitigate climate-related disruptions and enhance adaptive capacity within the education sector (Nabobo-Baba, 2016). They offer

contextually grounded strategies, sustainable environmental practices, place-based worldviews, and social values that shape how communities understand, respond to, and recover from climate impacts.

### **Strengthening Climate Literacy Through Place-Based Learning**

Indigenous knowledge provides learners with ecological understandings that are deeply rooted in local environments, offering insights into weather patterns, land-sea interactions, resource management, and seasonal cycles. Pacific communities have, for generations, monitored environmental signs—such as cloud formations, wind shifts, ocean currents, and animal behaviour—to anticipate climatic changes. According to Nunn and Kumar (2018), this observational knowledge forms an important complement to scientific climate literacy, enabling learners to interpret climate variability through multiple knowledge systems. Integrating IK into school curricula allows students to connect global climate science with the realities of their daily environment, making climate education more relevant, meaningful, and culturally grounded.

### **Supporting Community-Based Adaptation and School Resilience**

Indigenous knowledge contributes directly to community resilience, which in turn supports educational continuity during climate shocks. Traditional practices, such as elevated house-building, cyclone-resistant architectural designs, food preservation techniques (e.g., drying and fermenting root crops), and sustainable coastal management, help communities withstand extreme events (Koya & Prasad, 2021). When schools adopt these community-based strategies, they enhance their ability to prepare for, respond to, and recover from climate-induced disruptions. For example, the use of traditional environmental indicators can support localised early-warning systems, enabling timely school evacuations or preventive closures. In this way, IK becomes part of a broader protective structure that minimizes learning disruptions.

### **Embedding Cultural Values of Stewardship and Collective Responsibility**

Pacific cultures emphasize values such as *vanua* (land-people-spiritual interconnectedness), *veiwekani* (relationships), and *solesolevaki* (collective action). These values promote shared responsibility toward the environment and collective decision-making during crises

(Nabobo-Baba, 2016). When integrated into education, these cultural principles help cultivate environmentally responsible behaviours, strengthen school–community partnerships, and reinforce the importance of safeguarding ecosystems for future generations. Cultural values also provide emotional and psychological resilience for students who experience climate anxiety, displacement, or loss, ensuring that education remains a stabilizing influence even in times of stress.

### **Enhancing Curriculum Relevance and Student Engagement**

One of the persistent challenges in climate education is learner disengagement when content appears abstract, Western-centric, or disconnected from local lived experience. Integrating IK into the curriculum enhances relevance by contextualizing climate change impacts within local culture, history, and environment. Research by Gegeo and Watson-Gegeo (2017) suggests that culturally grounded education motivates learners by affirming identity, belonging, and cultural pride, reinforcing that indigenous ways of knowing remain valid and important in addressing modern challenges. This relevance increases participation, deepens critical thinking, and supports the retention of climate adaptation practices.

### **Preserving Cultural Heritage in the Face of Climate Displacement**

Climate change threatens not only physical infrastructure but also cultural heritage, sacred spaces, and ancestral knowledge. Education has a vital protective role in transmitting IK across generations, particularly as some communities face relocation due to sea-level rise or erosion. Through storytelling, traditional navigation, herbal medicine, agricultural knowledge, and customary environmental practices, schools can act as custodians of cultural heritage. This becomes an adaptation strategy in itself, ensuring that even if communities relocate, their identity and knowledge systems are not lost. In this sense, education acts as a bridge between cultural continuity and climate resilience.

### **Promoting Intergenerational Learning and Community Collaboration**

Climate resilience in the Pacific is strengthened through intergenerational knowledge exchange. Elders, community leaders, and traditional custodians hold valuable ecological insights that can inform school-based learning. Engaging them as partners in education, through guest teaching, school–community projects, traditional ecological workshops, and

cultural mapping, creates a collaborative learning ecosystem. Such collaboration not only enhances student learning but also reinforces community ownership of climate adaptation strategies, which increases sustainability. As Cox et al. (2020) note, intergenerational learning strengthens community cohesion, a critical factor in responding effectively to climate emergencies.

### **Complementing Scientific Approaches with Holistic, Ethical, and Spiritual Dimensions**

Indigenous worldviews often conceptualize the environment as interconnected, spiritual, and relational. These perspectives promote ethical responsibility toward nature, contrasting with technocratic or purely scientific climate approaches. According to Berkes (2018), integrating these holistic worldviews helps cultivate a deeper moral and emotional connection to the environment, which is essential for long-term behavioural change. In Fiji, values embedded in *vanua* and *lotu* (faith) emphasize respect and stewardship, reinforcing the ethical foundation for climate resilience. When incorporated into education, these cultural philosophies enrich climate learning by integrating emotional, ethical, and spiritual dimensions often absent in Western frameworks.

Indigenous knowledge and culture play a transformative, cross-cutting role in mitigating the impacts of climate change on education in Fiji by:

- Enhancing climate literacy through place-based learning
- Supporting community adaptation and school disaster resilience
- Embedding cultural values of stewardship and collective responsibility
- Increasing curriculum relevance and student engagement
- Preserving cultural heritage amid climate displacement
- Strengthening intergenerational and community partnerships
- Providing ethical and spiritual grounding for environmental stewardship

Together, these contributions enable education systems to respond to climate change in ways that are scientifically informed, culturally grounded, and socially cohesive. They ensure that Fiji's pathways to climate resilience remain connected to identity, heritage, and local wisdom, essential pillars for sustaining both learning and community wellbeing in the age of accelerating climate disruption.

**Table: Roles of Education and Indigenous Knowledge in Climate Resilience in Fiji**

Dimension	Education System Contribution	Indigenous Knowledge Contribution	Combined Impact on Resilience
Climate Literacy	Teaches climate science, risk reduction, adaptation concepts	Provides context-specific environmental understanding	Learners apply scientific + cultural insights to adapt effectively
Infrastructure	Disaster-safe schools, ICT, green buildings	Traditional building techniques adapted to storms & floods	Hybrid resilient infrastructure solutions
Community Engagement	School-community disaster planning	Vanua-based governance systems	Stronger community networks for emergency response
Sustainability	Promotes environmentally responsible behaviour	Embeds stewardship and land-ocean respect	

**Discussion and Analysis**

The findings of this review suggest that education plays a pivotal role in strengthening climate resilience in Fiji, not only by enhancing climate literacy but also by embedding culturally grounded adaptation strategies that reflect the lived realities of Pacific communities. The analysis illustrates that climate resilience cannot be achieved through scientific knowledge alone; rather, it requires the integration of local ecological understandings, indigenous values, and culturally responsive pedagogies. Scholars such as Nabobo-Baba (2016) argue that Pacific education systems must value *talanoa*, relational knowledge, and community wisdom as foundational elements of meaningful learning in climate-affected contexts. This reinforces the idea that climate change adaptation in education is inherently socio-cultural and context-dependent. A key theme emerging from the analysis is that Indigenous Knowledge (IK) acts as both a pedagogical asset and a resilience mechanism. As Nunn and Kumar (2018) highlight, Pacific communities have long interpreted environmental signals through place-based observation, enabling them to anticipate extreme events and sustain livelihoods despite ecological volatility. When such knowledge is integrated into formal curricula, it strengthens students’ environmental literacy by linking global climate science with local experiences. This connection is crucial for fostering deep, applied understanding. The synthesis of IK with contemporary climate science thus expands the epistemological base of climate education, making it more nuanced, relevant, and accessible for learners in rural,

maritime, and indigenous communities.

The analysis further demonstrates that cultural values—particularly *vanua*, communal obligation, spirituality, and stewardship, provide important ethical foundations for climate resilience. Thaman (2003) and Lingam (2014) both emphasize that Pacific cultures situate people within a relational ecosystem where land, sea, and spirituality are interconnected. These values cultivate a sense of guardianship that contrasts sharply with technocratic, individualistic models of environmental action. In the Fijian context, such cultural ethics can reinforce pro-environmental behaviours among young people, strengthening both social cohesion and long-term adaptation capacities. Hence, education that draws on cultural identity becomes not only a cognitive process but a moral and communal undertaking.

Another important dimension revealed through the analysis is the centrality of community engagement and intergenerational learning. Cox and colleagues (2020) argue that resilience in Pacific Island communities is built through strong relationships and the transmission of ecological wisdom from elders to younger generations. The review indicates that formal education systems often overlook this intergenerational dynamic, resulting in climate learning that feels disconnected from local realities. Integrating elders, traditional custodians, and local practitioners into school-based programs can bridge the gap between academic content and lived experience, thereby strengthening the social infrastructure necessary for resilience. In Fiji, where climate impacts such as

cyclones, sea-level rise, and saltwater intrusion disrupt not only classrooms but also family structures and cultural sites, community-based learning becomes a central strategy for sustaining continuity and wellbeing.

The analysis also highlights a significant tension between global climate agendas and local cultural realities. While frameworks such as SDG 4 and the Paris Agreement emphasize the importance of climate education, they often rely on Western epistemologies that may not fully account for indigenous worldviews. Berkes (2018) notes that effective climate action requires multiple knowledge systems to coexist, rather than subordinating local wisdom to scientific paradigms. For Fiji, this means that climate education must avoid becoming overly technocratic or detached from everyday life. Instead, it should adopt a culturally responsive, dialogic approach that validates indigenous perspectives while incorporating scientific understanding. This hybrid model aligns with the broader regional priorities outlined in PacREF, which stress the importance of contextual relevance, equity, and cultural sustainability (Pacific Islands Forum Secretariat, 2020).

A critical aspect of this discussion relates to the structural vulnerabilities embedded within Fiji's education system. The literature shows that schools in rural and maritime regions face disproportionate challenges, including inadequate infrastructure, limited digital connectivity, and high disaster exposure, that amplify the impacts of climate change on learning continuity. According to Koya and Prasad (2021), resilience frameworks that do not account for structural inequalities risk reinforcing existing disparities. The analysis confirms that integrating IK alone is insufficient unless accompanied by systemic investments in safe buildings, resilient ICT infrastructure, and teacher capacity-building. This underscores the importance of a dual approach: one that blends cultural strengths with institutional reform.

Furthermore, the findings suggest that climate resilience in education is as much about identity and belonging as it is about environmental skill-building. Gegeo and Watson-Gegeo (2017) argue that culturally grounded learning fosters emotional resilience by reinforcing identity in times of uncertainty and displacement. As more Fijian communities face climate-induced relocation, education becomes a critical site for preserving language, cultural memory, and place-based knowledge. The discussion therefore extends beyond pedagogical technique to include broader questions of justice, sovereignty, and cultural survival. Climate-resilient education, in this sense, becomes a pathway for sustaining communities, not merely adapting infrastructure.

Taken together, the analysis indicates that the relationship between education and climate resilience in Fiji is holistic, multidimensional, and deeply embedded in cultural worldviews. Effective climate education must therefore weave together scientific knowledge, indigenous wisdom,

community participation, and structural reforms. Such an integrated approach acknowledges that resilience is not a technical outcome but a cultural, social, and educational process. This positions education as both a shield and a compass: a shield against climate-related disruptions, and a compass guiding community toward sustainable, culturally grounded futures.

## CONCLUSION

This paper has demonstrated that education in Fiji plays a critical and transformative role in shaping climate resilience, particularly as communities confront intensifying climate threats such as sea-level rise, coastal erosion, cyclones, and ecosystem disruption. The analysis shows that climate change is not simply an environmental issue, it is an educational, cultural, and socio-political challenge that affects learning continuity, student wellbeing, community stability, and the preservation of indigenous identity.

A central conclusion emerging from this study is that climate resilience in Fiji must be grounded in a holistic educational approach that blends climate science with Indigenous Knowledge (IK), cultural values, and 21st-century competencies. Indigenous Knowledge provides essential adaptive strategies rooted in generations of environmental observation, while cultural values such as *vanua*, relationality, and stewardship offer ethical foundations for sustainable behaviour. When integrated into formal education, these knowledge systems expand the cognitive and moral dimensions of climate learning in ways that are deeply relevant to Fijian realities.

The review further concludes that meaningful resilience cannot be achieved through curriculum reforms alone. Structural inequalities, such as uneven access to infrastructure, teacher capacity, digital resources, and disaster-resilient learning environments, continue to shape how students experience climate impacts. Therefore, resilience must be conceptualised as both a pedagogical process and a systemic responsibility that requires coordinated action from policymakers, educators, communities, and regional actors.

Ultimately, strengthening climate resilience through education is not merely about preparing students to understand climate science; it is about safeguarding cultural continuity, reinforcing identity, and equipping communities with the knowledge, values, and skills required to navigate the uncertainties of a rapidly changing climate. Education becomes both a protective mechanism and a transformative force, preserving what is essential from the past while empowering young people to shape a sustainable and culturally grounded future.

## Recommendations

Based on the findings and analysis presented, the following recommendations are proposed to strengthen the role of education as a driver of climate resilience in Fiji:

### **Integrate Indigenous Knowledge and Local Contexts into the National Curriculum**

Develop curriculum modules that explicitly incorporate Indigenous ecological knowledge, traditional disaster preparedness practices, and community-based learning Indigenous decision-making while affirming cultural identity.

### **Strengthen Teacher Professional Development in Climate and Sustainability Education**

Provide ongoing training for teachers in climate science, culturally responsive pedagogy, place-based learning, and trauma-informed approaches for post-disaster contexts. Teachers are essential mediators of climate knowledge; their capacity directly shapes the quality and impact of classroom learning.

### **Build Resilient School Infrastructure and Learning Continuity Systems**

Invest in cyclone-resistant classrooms, reliable ICT connectivity, renewable energy systems, and mobile/alternative learning modes for post-disaster recovery. Climate-related disruptions to schooling disproportionately affect rural and maritime communities; resilient infrastructure ensures continuity, safety, and equity.

### **Institutionalise Community and Intergenerational Partnerships in School Programs**

Formalize collaboration with local chiefs, elders, fisherfolk, farmers, and community climate leaders as co-educators within school climate programs. Intergenerational learning strengthens cultural transmission, enhances place-based environmental literacy, and fosters shared responsibility for resilience.

### **Align National Education Policies with Regional and Global Climate Frameworks**

Ensure greater coherence between Fiji's curriculum reforms, the Pacific Regional Education Framework (PacREF), SDG 4, and national climate adaptation plans. Policy alignment improves resource mobilisation, coordination, and implementation, while situating Fiji within broader networks of climate action.

### **Establish Monitoring, Evaluation, and Research Frameworks on Climate-Resilient Education**

Develop indicators for tracking climate literacy, community engagement, resilience competencies, and school readiness for climate-related disruptions. Evidence-based monitoring supports continuous improvement and ensures that climate-resilient education programs remain responsive and effective.

### **Promote Student Leadership and Youth-Led Climate Action**

Expand opportunities for student engagement through climate clubs, service-learning projects, environmental stewardship initiatives, and innovation challenges. Youth are key actors in climate resilience; empowering them builds agency, civic responsibility, and community-wide transformation.

### **Closing Reflection**

Fiji stands at a critical juncture where climate change threatens not only its physical landscapes but its cultural heritage, livelihoods, and future generations. Education—when conceived as a culturally grounded, scientifically informed, and community-driven endeavour, offers one of the most powerful pathways for resilience. By embedding climate learning within indigenous values, strengthening systems and infrastructure, and empowering teachers and youth, Fiji can build an education system that not only responds to climate threats but shapes a sustainable and dignified future for all.

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