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## ‘Curui’: weaving climate justice and gender equality into Fijian educational policies and practices

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### ABSTRACT

This paper takes inspiration from the Indigenous Fijian practice of ‘curui’ – weaving or patching together – as a metaphor to explore connections between climate justice, gender equality, and education in Fijian policies and practices. The paper argues that neither gender equality nor education can be ‘silver bullets’ for the huge challenges that the climate crisis raises, particularly for small island developing states (SIDS) such as Fiji that exist at the sharp end of the crisis. The paper contributes close analysis of Fijian national climate change policies and development plans from 2010, identifying the ways in which these policies frame and discuss the connections between climate, gender, and education, and asking whether these policies acknowledge traditional ecological knowledges, and the extent to which they are aligned with notions of justice. It argues that connected approaches to education, centred in Indigenous knowledges and ontologies, have thus far been insufficiently included in Fiji’s policies.

### KEYWORDS

Policy; climate change; climate justice; gender equality; education; sustainable development; Indigenous knowledges; SIDS; Fiji

## Introduction

Climate justice and gender equality are two of the most pressing issues of our time. While the impacts of climate change are being felt around the world, its effects are not equally distributed, and in marginalised communities, women and girls are disproportionately impacted (Rao, Lawson, et al. 2019; Kwauk and Wyss 2022; Rao, Mishra, et al. 2019). This paper considers these issues in the context of Fiji, a Pacific Island nation comprised of over 300 islands, with a population of just under a million people. Fiji’s contested history of educational policymaking has been shaped since independence from Great Britain in 1970 by a focus on curricular reform, teacher quality and student-centred pedagogies (Crossley et al. 2017). Simultaneously, climate has been of paramount concern for Fijian policymakers (Lagi et al. 2022), with key contributions in global policy discourses,

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including co-hosting the climate-focused Conference of the Parties (COP23) in 2017. Drawing on an analysis of government policies in Fiji since 2010, we examine how girls' education and Indigenous<sup>1</sup> knowledges have (and have not) been considered in policy responses to the climate crisis. Our analysis highlights how notions of gender and Indigenous knowledges appear and disappear across policy texts.

This paper has three related but distinct aims. The first is to highlight the importance of gender equality and education through the lens of climate justice but to stress that no 'silver bullets' exist for the challenges that climate change raises, particularly for SIDS such as Fiji positioned at the 'sharp end' of the crisis (Crossley and Louisy 2019). The second considers an argument relevant to both Fijian national and international contexts that connections between climate, gender, and education may be a necessary – although not sufficient – consideration and condition to adapt to and mitigate the effects of climate change. A third aim discusses the neglect of the interrelationship between gender equality in education, Indigenous knowledges, and climate change, arguing this is a question of justice (Lagi 2015; Vunibola and Leweniqila 2021). Our understanding of climate justice draws on work in the academic-activist sphere (Newell et al. 2021; Waldron et al. 2019; O'Brien and Selboe 2015), which argues that the climate crisis is inherently connected to other crises of power, including racialised (Williams 2021), Indigenous (Byskov and Hyams 2022) and gendered (Parr 2021) injustices. Any and all proposed 'solutions' therefore need to take connected, pluralistic approaches to these crises, without instrumentalising, essentialising, or further marginalising Indigenous knowledges and practices, to be both just and successful (Deranger et al. 2022; Lagi 2015; MacNeill 2020). We argue that understanding policy processes with an Indigenous knowledge lens offers the potential to reveal how considering Indigenous philosophies, ontological and epistemological assumptions can offer new strengths for policymaking.

### **Understanding policy through a 'curui' framework: interweaving policies and knowledge**

In both national and global policy discourses, a range of terms have been used to describe the nature of policymaking, and associated processes of development and uptake of ideas from organisations within and across different country contexts. In the field of comparative education, processes of policy transfer, borrowing, and translation have been used to consider how educational policy trends develop (Steiner-Khamsi and Waldow 2013; You 2020; Crossley 2019) and tensions between the global and the local in relation to these processes have long been a concern of the field (Ball 1998), applied to Small Island Developing States (SIDS) such as Fiji, with implications for understanding policy on climate justice (Crossley and Louisy 2019) and gender (Singh, Tabe, and Martin 2022).

The ideas for this paper were germinated through dialogue between the authors as part of a cross-country research study on higher education and climate change,<sup>2</sup> asking how far and in what ways overarching development frameworks such as the UN's (2015) Sustainable Development Goals (SDGs) were interwoven at the local level in Fiji. We are interested in the transnational dimensions of policies associated with climate, education and gender, the ways in which policies shape (and are shaped by) different interests, and the complexities and nuances in terms of the local and global dialectic, questioning static understandings of both institutional and state-centred policy framings (Cowen 2009).

To understand the specificity of the Fijian policy environment, we see an Indigenous framing of policy as necessary. We draw on the Indigenous Fijian practice of 'curui' – the patching or weaving together of mats, boats or roofs of Fijian bure or houses through a circular economy approach that aims to strengthen rather than replace – as a metaphor for policy processes. This weaving metaphor is itself part of the Fijian sustainable development discourse, deployed as both a metaphor and a framing visual in Fiji's National Climate Change Policy (2018, 5) to symbolise the strengthening of connections and integrations of factors, sectors, and systems in addressing priority areas.

Our work builds on studies that have considered the metaphor of weaving as highlighting the relationship between the knowledges and social processes that influence policy-making. As Parsons (2004, 47) explained in a theoretical piece on policy building, 'the more interconnected and interwoven become policy problems, the more policymaking must be about interweaving knowledge and modes of policymaking'. Weaving is often associated with transformative potential. For example, Brown's (2004) paper on educational leadership outlined a transformative framework weaving principles of social justice and equity into the 'fabric' of pedagogy and policies. Chew (2019) introduced the traditional Chickasaw art form of finger weaving as a culturally responsive metaphor to conceptualise processes of language reclamation which emphasises Indigenous epistemologies. García's (2005, 128) research, alongside Mayan women in Guatemala, drew from women's discourses about weaving, linked to their identities and livelihoods, to explore ideas about literacy as both an act of 'weaving words' and a pedagogical tool within a community-based organisation. From an Aboriginal and Torres Strait Islander perspective, Ryder et al. (2020, 260) discussed weaving a methodology for 'research at the interface' where diverse knowledge systems and worldviews 'do not just sit over the top of each other and overlap, they intertwine, are weaved together, to ensure structural integrity'. The authors refer to the weaving technique as one that creates 'intersectional points' representing and respecting shared knowledge and established and emergent ways of understanding between different knowledge systems (ibid.). Our paper is interested precisely in such 'intersectional points', with regard to gender, climate and education.

### Considering connections between climate, gender and education

Increasingly, there is acknowledgement of more complex understandings of the climate crisis, which draw in questions of social justice, and move beyond dealing with climate change simply as a challenge to be addressed through technical solutions. The 2022 Intergovernmental Panel on Climate Change (IPCC) report, for example, which focuses on 'impacts, adaptation and vulnerability', draws on 34,000 studies to understand the connected root causes of the crisis, highlighting power differentials and injustices associated with physical and social location (IPCC 2022). The report refers to existing 'adaptation gaps' between current responses and those which are needed to adequately respond to climate impacts, giving attention to how 'inclusive, equitable and just adaptation pathways are critical' and that close 'consideration of SDGs, gender and Indigenous knowledge and local knowledge and practices' are necessary to close such gaps (IPCC 2022, 84).

Others have emphasised the complex ways in which education and climate change intersect from a gender perspective, drawing specific attention to what this means for

girls' education, which can be seen as both a driver and a response to climate change mitigation and adaptation (UNESCO 2020; UNDP 2012). An Emerging Issues Report by Sims (2021, 4), draws on academic, policy, and grey literature to discuss the interlinkage between girls' education and positive climate outcomes, framing girls' education as a key 'strategy' to address the effects of climate change. Kwauk and Braga (2017) refer to girls' education as a strategy to reduce gender inequalities, suggesting that 'integrated approaches' to climate action must establish clearer links between education and gender. In investigating how to reduce climate vulnerabilities, Muttarak and Lutz (2014) outlined the relationship between education and reducing vulnerability, arguing that education for girls is of particular importance for strengthening adaptive responses to climate change, while Chigwanda (2016) examined the relationship between education and preparedness for climactic shocks, putting forward a framework for building climate resilience through girls' education.

Although this growing evidence base indicates increased attention to the connections between climate, gender, and education, more robust empirical studies drawing closer and more nuanced links between them remain limited. Relatively consistent across many international policy discussions and debates from the 1960s onwards by different governments, policymakers, and international organisations has been the argument that investments in quality education can strengthen climate strategies (Fry and Lei 2021; Sims 2021). In particular, interventions which focus on girls considered to be more marginalised within education (including those with disabilities, who may be displaced by conflict, or who belong to Indigenous or ethnic minorities) are promoted as a means for social transformation (Girls' Education Challenge 2022). Other recurring themes within international policy discourses that emphasise the importance of girls' education in addressing the climate crisis suggest that it can foster climate leadership (Kwauk 2021a; Sperling and Winthrop 2015) and develop and strengthen girls' skills for a 'green' economy (Winthrop and Kharas 2016). In more contested evidence, higher rates of schooling leading to lower fertility rates (Bangay 2022) has been viewed as an indirect form of climate mitigation, and has been linked to broader debates around reproductive health and rights (Patterson et al. 2021). The recurring positioning of gender as a crucial factor for combatting climate change has, at times, further served to reinforce what could be viewed as predominantly human capital conceptualisations about the instrumental benefits of girls' education, whilst attributing an enormous responsibility – and burden – to girls (Hans et al. 2021; Eastin 2018), which in turn can hinder more critical engagements with intersectional concerns and processes of empowerment in and through climate action (Kaijser and Kronsell 2014).

Some authors offer frameworks to understand these connections. Pankhurst (2022, 14) has developed a conceptual framework mapping the 'multiple layered pathways between girls' education and climate change', outlining these through disruptions such as forced displacement or damage to infrastructure (negative effects), as well as through mitigation and adaptation responses including greener behaviours or participation of women in disaster risk reduction (positive effects) that might occur at the individual, community, school, and systems levels. Other frameworks and commitments on behalf of governments and international organisations concerned with girls' education and gender equality were discussed at the 2022 Transforming Education Summit (TES), and Freetown Manifesto for Gender-Transformative Leadership in Education, aimed at building

momentum for gender equality in and through education (UNGEI 2022). A UN Women 5-year Global Acceleration Plan for gender equality outlined climate justice as a key action (UN Women 2021).

Such frameworks and calls to action have prompted further thinking about the extent to which gender and education are enmeshed in global and local policy discourses and whether these challenge some of the narrower views of girls' education. Connections to gender and education issues in work on climate policy are not always made, as Kwauk and colleagues found in their comprehensive analysis of Nationally Determined Contributions (NDCs) associated with the formal negotiation processes of the United Nations Framework Convention on Climate Change through the Conference of the Parties (COP) process. In reviewing processes up to the year 2015, they found that only 42 out of 160 countries had made mention of education for children and youth when detailing different pathways for adapting to the challenges of climate change (Kwauk et al. 2019). In NDCs where education was mentioned, most positioned it in general terms (e.g. referring to education as a way to strengthen recycling practices or discussing how electrification might increase opportunities for education). None paid specific attention to the role of girls' education as a potential pathway towards achieving climate justice in their overall climate strategies (ibid). Their analysis suggests the majority of national strategies and policies for climate remain 'gender blind' with concerted connections between climate, education, and gender not made (Kwauk 2021b). Advocating against such gender-blind approaches, different advocacy groups have emphasised gender as an issue that cuts across global agendas for sustainable development, and have drawn attention to the ways in which principles of gender equality need to be integrated into climate policies and action (WEDO 2020; CARE 2021; NDC Partnership 2019; UNFCCC 2022c, 2022b). In Fiji, increasing awareness of the linkages between climate change and gender inequalities has led to a renewed interest in integrating gender-responsive approaches in national NDCs and policies (WEDO 2020; Asian Development Bank 2022).

### ***Climate, gender, and education in Fiji: the specificity of SIDS***

Transnational and national efforts to strengthen gender-responsive and gender-transformative education policies, processes, and practices (particularly for Indigenous women and girls) thus face steep challenges. But Indigenous communities in SIDS, including Fiji, face specific impacts: rising sea levels (Kelman, Mercer, and West 2009; Martyr-Koller et al. 2021; Piggott-McKellar, McMichael, and Powell 2021), the vulnerabilities of communities due to their low-lying coastlines (Nunn and Kumar 2018; Thomas et al. 2020), and climate-related stressors including coral bleaching and impacts on terrestrial biodiversity on islands (Bush 2017; Veitayaki, Nuttall, and Chand 2021). The IPCC (2018) special report for policymakers draws on these specific challenges for SIDS, emphasising the need to limit global rises in temperatures to 1.5°C to reduce climate change impacts on critical coastal ecosystems and allow SIDS opportunities for adaptations.

Although the voices of Pacific peoples on climate change impacts continue to be heard and documented, 'the perspectives of Pacific Island women are not included in the extensive literature on climate change' (McLeod et al. 2018, 179). Still, certain policies in SIDS have incorporated notions of gender equality in their national policies for climate

actions. An outcome document of the UN SIDS summit in 2014 outlined key thematic areas and goals which included providing quality education and training for youth and girls, in recognition of the multiple and intersecting forms of discrimination that affect women and girls as well as the unique and particular climate change vulnerabilities of SIDS contexts (Scobie 2019; UN General Assembly 2014). Other regional and national policies that have linked gender equality (in a more general sense) and climate action include the Caribbean Community Common Market Strategic Plan (CARICOM 2014), the St. Lucia Climate Policy (Government of Saint Lucia 2020), and the Kingston Outcome Document (UNESCO 2013). However, not all of these draw out the specific gendered impacts of climate change, and the implementation of these policies remains a challenge due to limited resources for participation, engagement and implementation (Bolon 2018, 4), and the lack of a common framework to increase their capacity to be heard.

In SIDS contexts, more recent climate-related disasters such as Fiji's Category 5 cyclone Winston in 2016 have had severe negative economic and social impacts (UNDRR 2019), thus prompting a wave of regional and national climate change policies aimed to foster adaptation strategies. At the regional level, the Framework for Resilient Development in the Pacific (2016, 2) aimed to enhance resilience to climate change and disasters and made specific mention of 'the critical role of integrating gender considerations' and 'equitable participation of men and women in planning and implementation of resilience building activities'. Beyerl, Mieg, and Weber (2018, 38) conducted a survey study in Tuvalu, Samoa and Tonga considering 'resilience' through perceptions on the impacts of climate change, but the study makes no mentions of gender in relation to issues of climate change and education (Beyerl, Mieg, and Weber 2018, 35). They found 'drought, cyclones, flooding, erosion, and associated impacts on health, property, and finances' as key impacts that need to be addressed but did not comment on some of the gender dynamics entailed. Respondents from the study suggested that relocation due to flooding and erosion should be part of adaptation strategies as well as more concerted efforts of planting and land preservation, but questions about gender and land use were not considered. In relation to education, there are only general mentions of supporting children's education as an 'adaptive action' (Beyerl, Mieg, and Weber 2018). Recognition and engagement with the diversity of Indigenous mitigation and adaptation strategies and deeper reflections on the gendered dimensions of climate change would support better alignment of these policies with cultural, gender, and climate justice.

Only a few studies have explored the gendered impacts of climate change in the Pacific. The majority of studies do not bring out these relationships and instead emphasise the importance of the values of local communities in planning for mitigation and adaptation. In Vanuatu, Perumal (2018) conducted a qualitative study on *ni-Vanuatu* perceptions on climate change discovered that although there is a wide acknowledgment of the imminent impacts of climate change, for many communities, relocation due to climate-related events is their last option. A study in Vunidogoloa village, Fiji, equally showed through interviews with key informants that 'relocation was their option of last resort as a means of sustaining livelihoods in the long term' (McNamara and Des Combes 2015, 317). For residents from outer islands of Yap State, Federated States of Micronesia, relocation to the mainland would mean reliance on traditional support through the *sawei* system – a bicultural system of tribute offerings, gift exchange, and



disaster relief that 'ensures everyone obtains what they need to survive' (Perkins and Krause 2018, 73). As these studies reveal, the 'climate refugee' narrative that has been advanced in major media outlets (McNamara and Gibson 2009; Perumal 2018) and the association of 'islandness' with vulnerability (Kelman and Khan 2013; Walshe and Stancioff 2018) do not always align with SIDS' experiences and perceptions.

A few studies link gender and aspects of Indigenous identity in documenting reflections on climate change. For instance, a study by Mcleod et al. (2018) drew from qualitative data from interviews with 19 women (who amongst them represented seven Pacific Island nations) and a workshop led by an international conservancy NGO, to suggest that women in Chuuk and the Marshall Islands have experienced violence from their partners as a result of droughts. In the same study, a participant from Papua New Guinea reported how climate change has in some cases doubled women's workloads due to the scarcity of food production caused by reduced soil fertility and erosion (Mcleod et al. 2018). In Vanuatu, a counselling centre reported that domestic violence increased by 300% following two tropic cyclones in 2011 (CARE 2015). In Samoa, the International Federation of Red Cross and Red Crescent Societies (2018) reported that displacement due to disasters resulted in an increase in gender-based violence; these findings were echoed by a Fijian case study that found tensions in some families after natural disasters as men would vent their frustration and anger on women due to loss of sources of livelihood like food crops (Singh, Tabe, and Martin 2022).

The few studies addressing gendered climate change impacts in the Pacific and Fiji thus demonstrate some of the ways in which increased vulnerabilities to gender-based violence manifest, but crucially, none of them make explicit links to the role of education for women and girls. Empirical work that explores justice-informed connections of responses to climate change associated with girls' education across the Pacific (and in Fiji specifically) remains limited, as does the literature which makes the case for Indigenous approaches, as the following section explores.

### ***Indigenous knowledges and climate change: policy gaps***

The 2015 Paris Accords emphasised the crucial role of Indigenous peoples' knowledge systems to understand and develop sustainable solutions and policies to the climate crisis (Tormos-Aponte 2021). But specific recognition of pluralised and Indigenous knowledges and the nature of the contribution they can make is not always recognised, and Indigenous peoples' access to education, participation in broader decision-making, and political representation – particularly for Indigenous women and girls – remain unequal (IWGIA 2022).

Discourses around the use and value of traditional ecological knowledge and the increasing need to consider Indigenous knowledge systems in climate change research have appeared in previous policy-oriented IPCC and UNESCO reports (Petzold et al. 2020; Nakashima, Krupnik, and Rubis 2018). However, mentions of traditional ecological knowledge often retain a North–South directionality in terms of viewing knowledge as a resource and means to an end for policy rather than as 'a valuable cultural and ontological contribution to the redefinition of the meaning of developmental and human–environment relations' (MacNeill 2020, 105).

Not unlike the oversimplified positioning of girls' education across many policy statements and government documents to 'unlock' the SDGs (Unterhalter 2023), there remains



a discursive tendency from agencies like the UNFCCC (2021a, 2021b, 2022a), to homogenise and instrumentalise Indigenous knowledges and frame ‘indigenous solutions’ as a way to ameliorate (or even reverse) many of the harms brought on by the main global carbon emitters (Belfer et al. 2019, 26; Zurba and Papadopoulos 2021). Such portrayals of Indigenous peoples as stewards of nature, whose ways of knowing are framed as a cornerstone of the fight against climate change, largely disregard the longstanding historical and contemporary violences (territorial, epistemic, racialised, and more) that continue to perpetuate processes of systemic dispossession and marginalisation (Stewart-Harawira 2012; Belfer et al. 2019). Without re-imaginings of policy from a justice perspective, the inclusion of Indigenous voices within debates on gender, education, and responses to climate change will remain fragmented.

In Pacific Island contexts, Indigenous people are seen as custodians of knowledge which are of great importance to resilience and adaptations to climate crisis. For Indigenous Fijians, traditional ecological and environmental knowledges are transmitted from one generation to the next through storytelling and oral instruction (Janif et al. 2016). These Indigenous Fijian’s knowledge systems offer viable alternatives to facilitate sustainable development planning, policymaking (Vunibola and Leweniqila 2021) and have allowed indigenous Fijian ancestors to forecast climate events and prepare optimally (Janif et al. 2016). Indigenous Fijian knowledges can be incorporated into ‘modern’ settings which can be the basis of ‘scientific’ research to addressing avenues of food security, farming system, medicine, social relations and resource use practices (Veitayaki 2004). Indigenous Fijians perceive climate change as the change caused by the change in weather that alters their lifestyle, changing their daily lives, customs and food production (Lagi 2015), and so have deep experiential knowledge of the crisis. Weather dictates daily activities, with the converse need for Indigenous wisdom in forecasting that helps to plan and respond to extreme conditions (Koya, Vaka’uta, and Lagi 2018).

These different studies reveal the potential for Indigenous ontologies and cosmologies to shore up responses to the crisis, but that this potential is not being translated into policy dialogues in all relevant contexts, as the following part of the paper explores.

### **Dis/connected framings? Climate change, gender, education and Indigenous knowledges in Fijian policies and development plans**

Six policies, each of which shape climate-related, education and gender activities in Fiji since 2010 were selected for analysis (and summarised in Table 1). These policies were all developed during the rule of the Fiji First Party, in power from 2006 to 2022. Their development also responds to shifts in international agendas and conventions, such as the United Nations Decade of Education for Sustainable Development (2005-2014) or the climate-focus Paris Accords (2015): where relevant, these international dynamics are signalled in the discussion which follows. In our analysis, the ‘curui’ lens offered a way to consider these policies in the light of Indigenous ontological and epistemological assumptions, and to critically engage with the extent to which each policy furthered climate justice and gender equality.

The Fiji National Curriculum Framework (2013) aims to provide directions for schools, teacher training institutions, and stakeholders in ensuring learners are well prepared for a rapidly changing world. The Fiji National Gender Policy (2014) was published in the same

**Table 1.** Selected Fijian policies and development plans.

Name and date of act / policy / plan	Framing of climate change	Framing of education	Framing of gender	Framing of Indigenous knowledge
Climate Change Act (2021)	Primary purpose in terms of mitigation; some discussion of responses and adaptation to effects of climate change	Education programmes for industry groups or general public to contribute to implementation of Act	Gender inclusivity, equity; equality; and gender responsiveness; women's human rights; female empowerment	Traditional knowledge of all Fijians should inform both climate policies and sustainable management of ocean
National Climate Change Policy (2018)	Aligned to the Paris accords (2015)	National capacity development; core principle around integrated learning	Gender responsiveness as one of the central pillars of the policy; references Fiji's National Gender Policy	Implementation should be informed by traditional knowledge relating to climate change adaptation and mitigation
NDC Implementation Roadmap 2017–2030 (2017)	Specific to energy sector and climate change mitigation	Capacity building and technical assistance	Gender equality; specific mention of SDG 5	No connection to Indigenous knowledge
Fiji's 5-Year and 20-Year National Development Plan 2017–2036 (2017).	Resilience; climate change and disaster management	Training and capacity building	Gender inclusivity; some specific policies with gender focus (e.g. gender violence) but not connected to education or climate	Aim of developing intellectual property rights for the protection of traditional knowledge and mainstreaming of culture in educational curriculum.
National Gender Policy (2014)	Recognition of differential impacts burdens and vulnerabilities of women in climate-disasters. Policy calls for gender impact assessment, gender analysis and gender-aware approaches to climate change.	Aims to 'facilitate legislative change and public awareness of relevant legislation and their implications'	Gender inclusivity; equity; equality; and gender responsiveness; women's human rights; female empowerment.	No connection to Indigenous knowledge
Fiji National Curriculum Framework (2013)	Current and future risk; mitigation and adaptation referenced in relation to climate change education	Climate change education: aim for students to demand, generate, interpret and apply information on current and future climate challenges	Gender inclusivity in teaching and learning	Incorporation of Indigenous and cultural knowledge in the curriculum to enable the development of contextualised coping mechanisms for climate adaptation

year to promote gender equity, equality, social justice, and sustainable development. Both make connections to climate change. The Fiji National Curriculum Framework (2013, 24–38) aims for students to demand, generate, interpret, and apply information on current and future climate challenges, specifically mentioning how 'all learning and teaching programs must be inclusive of gender' and that Indigenous knowledges 'will

form an important part of the curriculum in enabling the development of contextualised coping mechanisms for climate adaptation strategies'. In the National Gender Policy (2014, 24), the differential impacts and burdens of climate and climate-related disasters are acknowledged, with the policy calling for continued support and development of a 'gender aware policy on climate change' as well as a 'uniform and gender aware disaster relief and climate change strategy for all countries in the Pacific'.

In 2017 Fiji launched its National Development Plan which included policies on (1) strengthening understanding of the impacts of climate change and disasters to better plan for recovery and long-term development, and (2) strengthening partnerships at all levels for building resilience to climate change and disasters. In this National Development Plan (2017, 53), the fuller account of education developed in 2013 in the National Curriculum Framework, that acknowledges the crucial role of climate change education to respond to the climate crisis, is largely reduced to an emphasis on 'training' and 'capacity building', and there is no recognition of the connections between education, gender, and climate. Although gender inclusivity is mentioned in the Plan and some targets have a gender focus (such as discussing the risk of gender violence, for example), these are disconnected from the risk of gender violence associated specifically with climate-related disasters emphasised in studies of Pacific Island contexts (McLeod et al. 2018; CARE 2015; Singh, Tabe, and Martin 2022).

In 2017, Fiji co-hosted the 23rd Conference of the Parties (COP23) in conjunction with the city of Bonn in Germany. Influenced by the process, Fiji published its NDC Implementation Roadmap that addressed the country's goals for reductions in greenhouse gas emissions by 2030 (Singh 2020). This Roadmap set out Fiji's ambitious targets of reducing 'CO<sub>2</sub> emissions by 30% from a "business as usual" baseline scenario in 2030 by striving to reach 100% renewable energy power generation and through economy-wide energy efficiency' (2017, 4). While the roadmap references gender equality and Sustainable Development Goal 5 (related to achieving gender equality), these references are not fleshed out in detail. Moreover, the Roadmap views mitigation through an exclusive focus on Fiji's energy sector, framing education only in terms of capacity building and technical assistance for raising awareness on energy efficiency.

Following the NDC Implementation Roadmap (2017), Fiji launched the National Climate Change Policy (2018) which was characterised by a weaving approach, with references to both gender and education and aligning with the 2015 Paris Accords. The policy was closely linked to Fiji's 5-year and 20-year national development plan (2017–2036) and sought to 'accelerate Fiji's progress towards achieving the SDGs and other national, regional, and global commitments' (2017, 3). Gender responsiveness was one of the central pillars of the National Climate Change Policy, which placed 'integrated learning' as another core principle of the plan. However, more explicit connections were not made to Fiji's National Curriculum Framework (2013), and opportunities lost to mandate a role for climate change education in formal schooling. Fiji's National Climate Change policy is thus only in limited ways in dialogue with global policy discourses emphasising the role of girls' education in addressing climate change.

In 2021, Fiji's parliament enacted the Climate Change Act with the primary purpose of implementing Fiji's national commitments and obligations to reduce its greenhouse gas emissions along with other climate objectives. This policy advocates educational programmes for industry groups, and 'awareness raising' to support the general public to

implement the Act, closely echoing the targets associated with Sustainable Development Goal 13 (on climate action) but not discussing issues of Indigenous knowledge or gender and education.

While our analysis has revealed some connections across the gender-education-climate nexus in Fijian policies, acts, and development plans, our review highlights that they do not offer policy frames that fully situate sustainable development within a holistic understanding of socio-climate justice, or fully recognise and enact the important role that Indigenous knowledges and practices can and should play. Moreover, despite some consideration of gender, the existing policy frameworks do not allow for nuanced reflections on the relationship between climate change and girls' education.

Where connections do exist, they offer narrow and less tightly 'woven' accounts of education that echo the language of SDG 13 (related to climate action) but not of SDG 4 (linked to education). While the climate-focused Fiji national policies and plans promote technical assistance, capacity building, and awareness, training, or educational programmes to support implementation, the policies are silent on how capacity building, awareness, and training will be monitored, assessed, and evaluated to show that the outcomes are achieved. These terms focus on adults, experts, or the public, and do not explicitly work to include children (and specifically girls) at the sharp end of climate impacts, nor engage with full accounts of transformative educational practices, attitudes, or behavioural change. While the Fiji National Climate Change Policy (2018) is unique in using a weaving approach to strengthen the systemic coordination of sectors, systems, and stakeholders, the policy is silent on how they will be coordinated, reported on or implemented.

A second concern is that the same could be said of the policy approaches to gender, which do not present full accounts of female empowerment or the differential impacts which women and girls in climate-affected areas experience. Gender balance, gender inclusivity, increasing women's participation, and gender empowerment are highlighted in Fiji's national policies, thus maintaining a link to SDG 5 (related to gender equality). In fact, 83.3% of legal frameworks in Fiji promote, enforce and monitor gender equality (UN Women Data Hub 2022). Despite this, women's participation in Fiji's civic life remains highly constrained: in the 2022 Fiji general election, only 56 of the 343 provisional candidates were women (International Institute for Democracy and Electoral Assistance 2022). Moreover, only 6 out of 55 elected members of parliament (MPs) were women, representing a decrease in women MPs (16.3%) in comparison to the 2018 (24%) and 2014 (17.7%) elections (Ligaiula 2022). As a research report by the National Democratic Institute (2022) on violence against women in politics with a focus on Fiji, Papua New Guinea, and Solomon Islands further reiterated, stereotyped gender roles remain barriers to women's participation in Fijian politics. In addition, the policy Gender Equity and Social Inclusion Policy 2021–2024 of Fiji's Ministry of Economy (2021) itself acknowledged that patriarchal attitudes are still dominant in many aspects of Fiji society, and gender-based violence remains a serious and widespread problem that hinders the social and economic development of the nation (8).

There is also, as Pankhurst's (2022) study indicated, a clear and profound need to deepen understandings and develop further evidence about the relationship between climate change and girls' education, whilst taking on board and 'weaving' in the multifaceted nature of gender and the complex, intersectional inequalities that are reinforced,

challenged, and shifted in realities of climate change (Kaijser and Kronsell 2014). Unless and until gender concerns move beyond general calls for gender responsiveness and inclusivity in Fijian policies – without considering how such processes are implicated in wider intersectional inequalities – there will continue to be negative disruptions at the school, community, individual and systems levels, which in turn might derail or even block upward trajectories in education (Pankhurst 2022).

Our final concern relates to Indigenous knowledges, and the potential gap that these policies raise for how ‘climate’ will be taught and woven into formal educational syllabi and practices. Comparable to gender, Indigenous knowledges are not widely promoted in climate change policies, national legislations, or legal instruments in Fiji: indeed, more concrete legal applications for protecting Indigenous knowledges at the national level started just 20 years ago with the adoption of the Model Law on Traditional Knowledge and Expressions of Culture (Secretariat of the Pacific Community 2003). Proposed to serve a dual function, this law aims to protect Indigenous knowledge from misappropriation and commercialisation and is concerned with safeguarding Indigenous ‘intangible cultural heritage’ for continuity (Nand 2012, 60). In assisting and strengthening the implementation of the law, the Fiji government mandated the *iTaukei*<sup>3</sup> Institute of Language and Culture to undertake a cultural inventory of the diverse existing Indigenous knowledges (Ministry of iTaukei Affairs 2017). This vast and ambitious project of ‘cultural mapping’ across Fiji’s 14 provinces began in 2004 and ended in 2018 (Ministry of iTaukei Affairs 2017), during which time Fiji also ratified the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) in 2010.

Although Fiji has enacted international legal frameworks such as the Copyright Act 1999, Trademarks Act 1933, and Patents Act 1879, these conventional legal frameworks provide largely ‘Western’ justifications for intellectual property but fail to protect Indigenous knowledge and expression of culture (Nand 2012). It is only in recent national policy documents on climate change that Indigenous knowledge is mentioned, and even then, it is not specifically clear how Indigenous knowledges are understood or how they can or might be leveraged in the context of changing climates. At the time of the writing, the proposed legislation Traditional Knowledge and Expressions of Culture Bill remains in the drafting process, thus demonstrating that further work needs to be done to ensure that Indigenous knowledges are more tightly woven into policy discussions at the national and community level (Qounadovu 2016; Talei 2021).

While the Fiji National Curriculum Framework promotes the use of a language students understand as a tool for learning and includes themes around climate change, gender, ethnicity, culture, socio-economic background, geographical location, and Indigenous and cultural knowledge (2013, 28), it does not make explicit links to epistemic justice and the foundation of Indigenous knowledges, nor does it consider how the two might intersect with educating girls for a sustainable future. Consequently, this may affect its teaching or practice in the classrooms, schools and communities (Lagi 2015; Koya, Vaka’uta, and Lagi 2018). We contend that Indigenous knowledge must be recognised and valorised in Fiji’s climate change education policies so that it not only re-equips fundamental Indigenous Fijians’ ontologies and epistemologies that are vital for social protection and reclaiming Indigeneity, but also allows them to deepen engagement with their history and build on Indigenous resilient mechanisms that have allowed their ancestors to survive on their islands for thousands of years. One potential way to do this would

be to revise the Fiji National Curriculum Framework so that it more clearly articulates with the most recent Climate Change Act (2021) and National Climate Change Policy (2018), strengthening their relevance and impact on formal education systems, and increasing the impact and reach of the climate policy sphere.

## Conclusion

Drawing from 'curui' as a conceptual tool, this paper has proposed a new connected approach for policy across the gender-education-climate nexus that is more substantially centred on Indigenous knowledges and ontologies. Through the 'curui' metaphor, we bring forward a new articulation that challenges apolitical assumptions about education and gender equality, highlighting these as part of a broader process associated with the pursuit of justice in the face of climate change and associated vulnerabilities and burdens. By highlighting the Fijian context in the woven interconnections between climate change, gender equality, and education, we emphasise the need for more critical re-imaginings of policy agendas that are rooted in inclusion, participation, and regeneration. Critical engagements with and examinations of global policy agendas for girls' education and evidence of more robust enquiries into Indigenous knowledge systems would help to provide a stronger sense of ownership and break the stigmatisation and exclusion of Indigenous peoples and languages in policymaking and educational spaces (Lagi 2015; Sanchez Tyson 2021). Although girls' education alone is not, and should not, be considered another 'silver bullet' in terms of building and strengthening climate resilience in contexts such as Fiji, growing evidence still strongly points towards its crucial role in improving climate resilience (Muttarak and Lutz 2014) decreasing disaster vulnerability (Bangay 2022; Feinstein and Mach 2020), and for strengthening women's political participation and empowerment (Ergas 2021; Mavisakalyan and Tarverdi 2019), which in turn could help to develop more substantive policy agendas and frameworks.

## Notes

1. We have adopted the orthographic classification of Indigenous with a capital 'I' to further recognise and legitimise distinct and varied Indigenous communities.
2. The *Transforming Universities for a Changing Climate* study, funded by the Global Challenges Research Fund.
3. The predominant Indigenous population in Fiji.

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