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Forging the education– climate justice connection

A regional consultation and
baseline assessment of Asia-Pacific educators'
knowledge gaps and advocacy needs
for advancing climate justice in education

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Forging the education–climate justice connection: A regional consultation and baseline assessment of Asia-Pacific educators' knowledge gaps and advocacy needs for advancing climate justice in education

Author: Richard Calayeg Cornelio



Education International represents organisations of teachers and other education employees across the globe. It is the world's largest federation of unions and associations, representing thirty million education employees in about four hundred organisations in one hundred and seventy countries and territories, across the globe. Education International unites teachers and education employees.

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PART 1

Introduction

In the Asia-Pacific region, the impacts of the climate emergency are acutely felt by teachers and education support personnel, both as essential workers and as members of communities that are unjustly enmeshed in the cycle of disasters and crises.

Hydroclimatic extremes, such as typhoons and heat waves, are inflicting destruction on education infrastructures, most of which are ill-equipped to deal with such intense shocks. Damages incurred via calamities are causing schools to shutter, classes to adapt to ever-shifting academic calendars, and students to lag behind. Among the region’s island nations, the education sector is facing rising sea levels that threaten to wipe out not only schools but also entire populations. Without decisive policy actions, climate change will reverse humanity’s progress on many fronts, including education.

In line with its E4SD: Educators for Sustainable Development campaign, Education International Asia-Pacific (EIAP) continues to call on governments and EI member organisations to put climate change education on their policy and advocacy agendas and to mobilise for a just transition to a more sustainable world. In 2022, EIAP expanded on these demands at its 9th Regional Conference, with the theme “Rebuilding the Asia-Pacific: Educators and their unions at the

Table 3. Guiding Questions to Identify Variations of Struggles During the COVID-19 Pandemic

IMPLEMENTING BODIES	ACTION POINTS
<p>Urges EIAP to...</p>	<ol style="list-style-type: none"> 1. commit to the development of EI policy demands on climate justice and climate change education through regional consultative processes 2. help build the capacity of national unions in promoting just transition and climate change education; and 3. enhance alliances and coalitions with other global union federations and regional United Nations institutions to support the fight for climate justice.
<p>Urges EI member organisations to...</p>	<ol style="list-style-type: none"> 1. When was the decision to close schools in your area made? 2. Did online learning start immediately after the pandemic was announced? Why? 3. How was the internet infrastructure situation in your area? Who gets a good connection and who is challenged? How big is the population who do not have sufficient internet connection access in your area?

forefront towards a sustainable future.” EIAP affiliates and collaborators accepted a mandate “emphasising that the dimensions of and pathways to sustainable development do not exist in silos and are instead thematically interconnected with the different areas of work on which education unions in the Asia-Pacific region generally focus their advocacy and partnership efforts.”

At the same regional conference, EIAP member organisations adopted a resolution on the climate crisis that encompassed broader commitments to advancing climate justice in the education sector (Table 1).

EIAP affiliates are enjoined to follow through with different campaigns, projects, and initiatives toward sustainable development, including actions to mainstream climate justice. Within their countries

and sub-regions, however, education unions may vastly differ in their needs and priorities, level of concern and interest, and capacity to integrate climate justice work into their labour union agendas. Therefore, a baseline assessment is the first step toward strategising how and where education unions in the Asia-Pacific region can uniquely position themselves within the climate justice discourse, with particular consideration to their various sociocultural and political-economic contexts.

To this end, this study seeks to identify the advocacy and capacity-building needs of EIAP affiliates where the advancement of climate justice is concerned and where climate change education and just transition matters are spotlighted. Our objective is two-fold: (1) to assess the baseline knowledge of EIAP members regarding climate science, justice and policy; and (2) to gather their insights on and recommendations for developing, facilitating, and implementing climate justice policies and measures in schools, trade unions, and beyond.

The findings of this study also serve a programmatic function as they will help pinpoint knowledge gaps and advocacy areas to be targeted and addressed by EIAP's climate justice programme. By "knowledge gaps," we refer broadly to topics in climate science, justice and policy where most educators and education unionists in the Asia-Pacific show misperception, uncertainty, or a complete lack of information or familiarity. By helping unions locate the nexus between climate justice and education, this study hopes to encourage conversations among education unions in the region to reaffirm their abiding commitment, as part of the broader trade union movement, of building a just and equitable world for workers and their communities.



PART 2

Methods

2.1. Consultation Survey

The survey was open to all members of EIAP affiliates with internet access. The questionnaire (provided for reference in **Annex 1**) was translated into languages other than English (Chinese and Japanese) upon the request of union leaders. It was designed in extensive consultation with the coordinator of EIAP’s climate justice programme, taking into account the content’s veracity, and its relevance to EIAP members.

We did not aim for the instrument to measure the respondents’ knowledge per se; rather, it was their confidence in their assumed knowledge of climate change vis-à-vis the accuracy of said knowledge that we sought to assess.¹ We analysed their responses on a five-point²

1 See Kuklinski, J. H., Quirk, P. J., Jerit, J., Schwieder, D., & Rich, R. F. (2000). Misinformation and the currency of democratic citizenship. *The Journal of Politics*, 62(3), 790-816. Kuklinski et al. (2000) suggest a threefold distinction of knowledge in political communication: “informed,” “uninformed,” and “misinformed.”

2 This response scale is similar to that employed in Taddicken, M., Reif, A. & Hoppe, I. (2018). What do people know about climate change—and how confident are they? On measurements and analyses of science related knowledge. *Journal of Science Communication (Jcom)*, 17(3), 1-26. Compared with close-ended true-false quizzes,

Likert scale: from “1 – disagree entirely” to “5 – agree entirely,” with the middle response option of “3 – Neither agree nor disagree/unfamiliar with the topic.” We required respondents to assess how much they agreed or disagreed with 14 statements in the questionnaire³ that corresponded to or described particular concepts in two knowledge domains: (i) climate science and (ii) climate justice and policy. On the one hand, the degree to which they agreed with correct statements, or disagreed with incorrect statements, signified their confidence in correctly held information (i.e., factual beliefs); on the other hand, the degree to which they agreed with incorrect statements, or disagreed with correct statements, signified their confidence in misinformation or misperception.

Respondents were further asked which climate change impacts concerned them the most. An open-ended option was presented to allow respondents to enumerate impacts that the list did not cover, which could provide EIAP with valuable insight into the impacts that resonate most with educators from different Asia-Pacific sub-regions.

However, it must be disclosed that the sample of respondents we obtained was far from representative of the total EIAP membership, primarily due to the practical challenges of probability sampling (see Box 1). It should be noted that the EIAP Regional Office undertook significant efforts to disseminate the survey by email and through coordination with several leaders of EIAP member organisations as widely as possible to maximise participation. Given this sampling protocol and the likelihood of self-selection bias, the conclusions to be drawn from the survey results could only reasonably apply to members of EIAP affiliates likely within reach of the Regional Office and who may be interested enough in the climate discourse, to begin with.

surveys with this response scale can demonstrably explicate the respondent’s levels of knowledge by accounting for confidence (i.e., their certainty about their knowledge). See further: Sundblad, E. L., Biel, A., & Gärling, T. (2009). Knowledge and confidence in knowledge about climate change among experts, journalists, politicians, and laypersons. *Environment and Behavior*, 41(2), 281-302.

- 3 Cf. Dijkstra, E. M., & Goedhart, M. J. (2012). Development and validation of the ACSI: Measuring students’ science attitudes, pro-environmental behaviour, climate change attitudes and knowledge. *Environmental Education Research*, 18(6), 733-749; Vignola, R., Klinsky, S., Tam, J., & McDaniels, T. (2013). Public perception, knowledge and policy support for mitigation and adaption to climate change in Costa Rica: comparisons with North American and European studies. *Mitigation and Adaptation Strategies for Global Change*, 18, 303-323.

**BOX
1****LIMITATIONS OF THE SAMPLING DESIGN**

The sample size was inadequate; at a confidence level of 95%, the margin of error, with finite population correction, was $\pm 6.38\%$. Mainly on account of the skewed sub-regional distribution, this sample was also far from representative of the EIAP membership, violating the assumptions of normality crucial for deriving generalisable, sound conclusions about such a diverse region as the Asia-Pacific from the survey findings. Sample stratification by sub-region could have controlled for sampling error. We cannot, therefore, expect this baseline study to sufficiently or accurately capture the heterogeneity of the population of interest.

It is also critical to note the extremely low measures of reliability of the instrument used. Whereas a Cronbach’s alpha value of at least 0.70 is usually considered “acceptable,” we obtained values of -0.31 for items about climate science and -0.48 for items about climate justice and policy, which suggest two major methodological weaknesses.

First, a negative such value indicates that low scores on one item tend to be associated with high scores on other items, and vice-versa, and such a negative correlation within each set may point to a lack of reliability or internal consistency of the test items. Each item set was intended to measure one specific construct – the first five (5) statements supposedly relate to climate science, and the other nine (9) statements supposedly relate to climate justice and policy – but, given the negative average inter-item covariance, the items in each set might (i) not have robustly measured the construct of interest or (ii) have measured two or more different constructs or a construct other than what they were supposed to measure.¹

1 There is merit to this interpretation; for instance, the statement on carbon removal technologies, as included in the item set on climate science, could also arguably be grouped alongside the items about climate justice and policy. While technically and categorically true, this statement – “It is presently possible to offset greenhouse gas (GhG) emissions from human activities by removing GhGs through carbon removal technologies.” – might

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Second, and more crucially, the negative Cronbach's alpha values may be symptomatic of the inadequate sample size. Where the sample is too small to be deemed representative of the population, as in this case, the alpha value may be so artificially low as to be inaccurate in measuring the survey's reliability. Because the sample skews more toward a certain proportion of the population, there might not have been enough variation in the scores. The sampling error might have led to negative average covariance, meaning that the collected sample was statistically incompetent at testing the survey's reliability. Thus, as previously noted, a more thoroughly designed sampling protocol would more robustly improve the reliability of the survey instrument and increase our confidence in the survey results.

inclined a respondent toward agreement or disagreement depending on the respondent's prior knowledge of the current discourse on whether carbon removal technologies and the policy push for their use are ethical or feasible at a large scale. In this case, the item might not measure the respondents' confidence level in their knowledge of climate science per se, as their answer might also be influenced by their ideological or political stance on the policy issues surrounding carbon removal technologies.

Moreover, EIAP's climate justice programme is aimed to be carried out through an Educational Action Research framework in the longterm.⁴ In part influenced by Paulo Freire, the programme envisions engaging EIAP affiliate members in various research activities that inspire dialogue on the systemic causes and structures behind the climate crisis and their relation to the problems that beset the education sector. Hence, while the survey sample size was sub-optimal, it serves as a starting point for educators from varied Asia-Pacific geographies to register their concerns regarding climate change and its social justice dimensions. The EIAP climate justice programme seeks to expand on this work and shall use the consultation survey results as a guide for its future forays into participatory action research.

4 Gilbert, C. (2022). Walking the popular education spiral – an account and analysis of participatory action research with teacher activists. *Educational Action Research*, 30(5), 881-901.

2.2. Key Informant Interviews

To address the study's second objective, we interviewed union leaders and representatives from four sub-regions in the Asia-Pacific: North Asia, the Pacific, South Asia, and Southeast Asia. We chose informants recommended by the EIAP Regional Office and interviewed most of them via videoconferencing, while others opted to send their responses by email. The questions in **Table 2** guided the semi-structured interviews and aimed to elicit union perspectives on climate justice and policy.

Table 2. Guide questions for the key informant interviews with union leaders and representatives

NO.	QUESTION
1.	Within your union, how would you describe the level of awareness of and interest in climate change and climate justice?
2.	Within your country or sub-region, what are the specific environmental or climate-related issues or concerns?
3.	Within your country or sub-region, are there specific climate policy concerns that your union would like to engage in? If yes, could you list them? Conversely, what existing local, national, or sub-regional climate policies do you think (will) help create an enabling environment for your union's climate justice work?
4.	Could you describe the level of awareness regarding a just transition for the education sector within your union? How does a Just Transition framework relate to your work as a union in advocating for labour rights and the issue of privatisation in education?
5.	What challenges within your union and outside of it affect your ability to mobilise and organise for climate justice?

PART 3

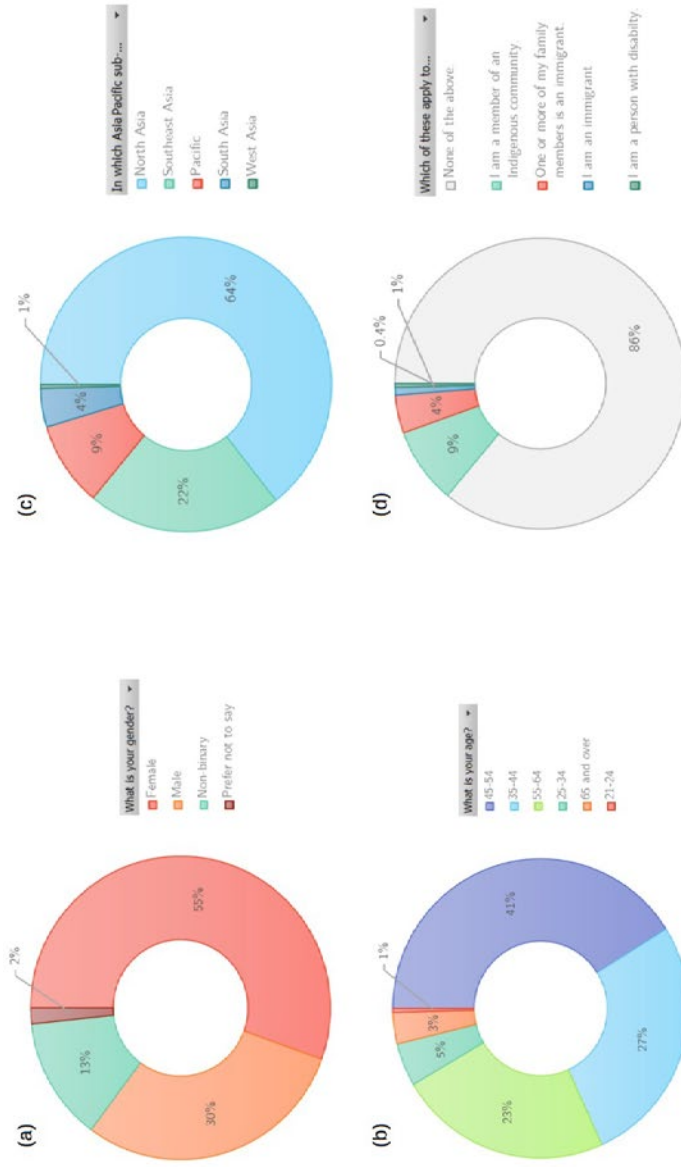
Results and Discussion

This report of the findings is structured as follows: we first detail the survey results with analyses of the respondents' knowledge of climate science, justice, and policy, the relationship between these knowledge domains, and the respondents' context-specific concerns about climate change. In the last section, we discuss the themes in the qualitative data collected from key informant interviews, summarised according to the participating unions' sub-regional groupings.

3.1 Survey

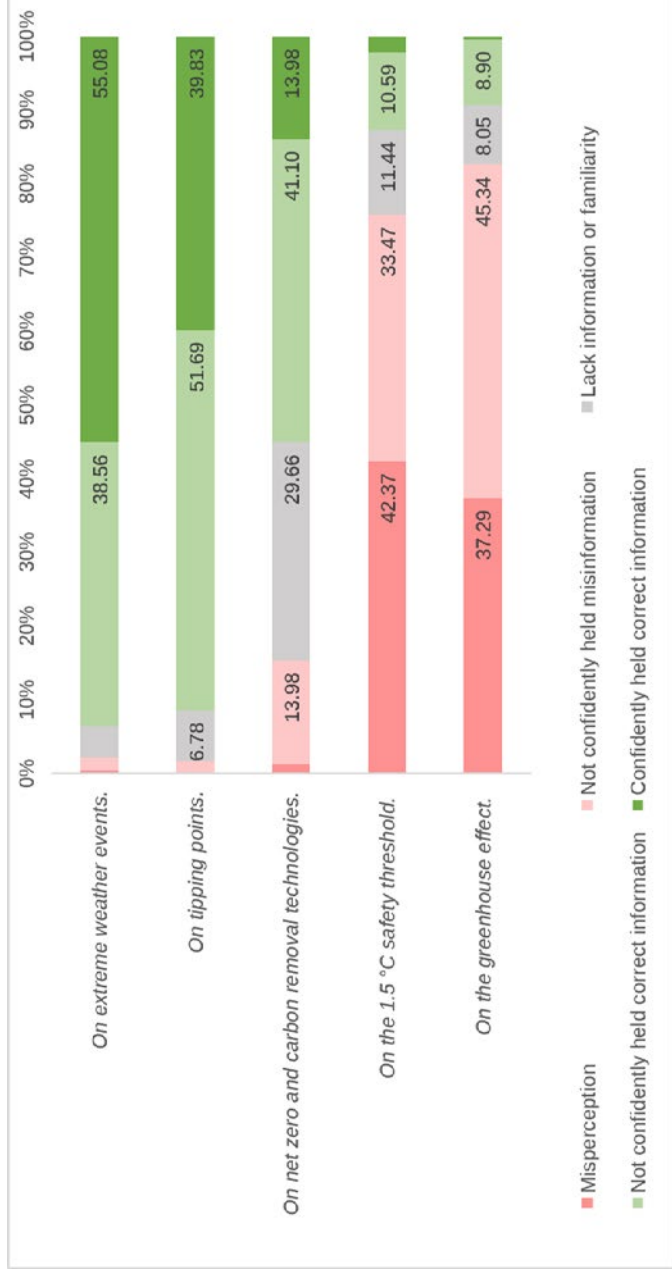
Figure 1 shows the demographic characteristics of the sample. Over half of the respondents were female; over 90% belonged to the 35–64 age group; and almost two-thirds represented unions based in the North Asia sub-region. About one in seven of the respondents was also a member of an Indigenous community, or a person with a disability, or an immigrant, or had one or more immigrant family members.

Figure 1. Demographic characteristics of the sample (n = 236) by (a) gender, (b) age group, (c) sub-region, and (d) self-identification with various groups.



Sources: Guardiancich & Molina (2020, p. 9)

Figure 2. Frequencies for knowledge of climate science in %, arranged in descending order of the frequency for respondents with “confidently held correct information”; n = 236; frequencies below 5% are not reported.



Sources: Guardiencich & Molina (2020, p. 9)

3.1.1 CLIMATE SCIENCE

On items about climate science (**Figure 2**), there were more respondents who confidently held correct information (mean frequency of 22.29%) than those who fully agreed with incorrect statements in the survey (mean frequency of 16.27%). The majority of respondents (mean frequency of 30.17%), however, held correct information, albeit less confidently, as opposed to those who lacked information on or familiarity with the topics (mean frequency of 12.03%) or those with not confidently held correct misinformation (mean frequency of 19.24%).

For specific topics in climate science, most respondents were well-informed about extreme weather events, but considerably more had uncertain knowledge about tipping points. About a third lacked information on or familiarity with carbon removal technologies. Meanwhile, the higher number of misinformed respondents for the statements on the greenhouse effect and on the 1.5°C safety threshold underscores a remarkably higher level of uncertainty and misperception. Based at least on this data from our inadequate sample, these last three topics may be regarded as “knowledge gaps” in EIAP members’ understanding of basic climate science (**Box 2**).

BOX 2. KNOWLEDGE GAPS IDENTIFIED

KNOWLEDGE DOMAIN	KNOWLEDGE GAPS
Climate Science	<ol style="list-style-type: none"> 1. On net zero and carbon removal technologies 2. On the 1.5°C safety threshold 3. On the greenhouse effect
Climate justice and policy	<ol style="list-style-type: none"> 1. On climate finance 2. On net-zero policies 3. On climate migration 4. On distributional impacts 5. On historical emissions 6. On renewable energy

3.1.2 CLIMATE JUSTICE AND POLICY

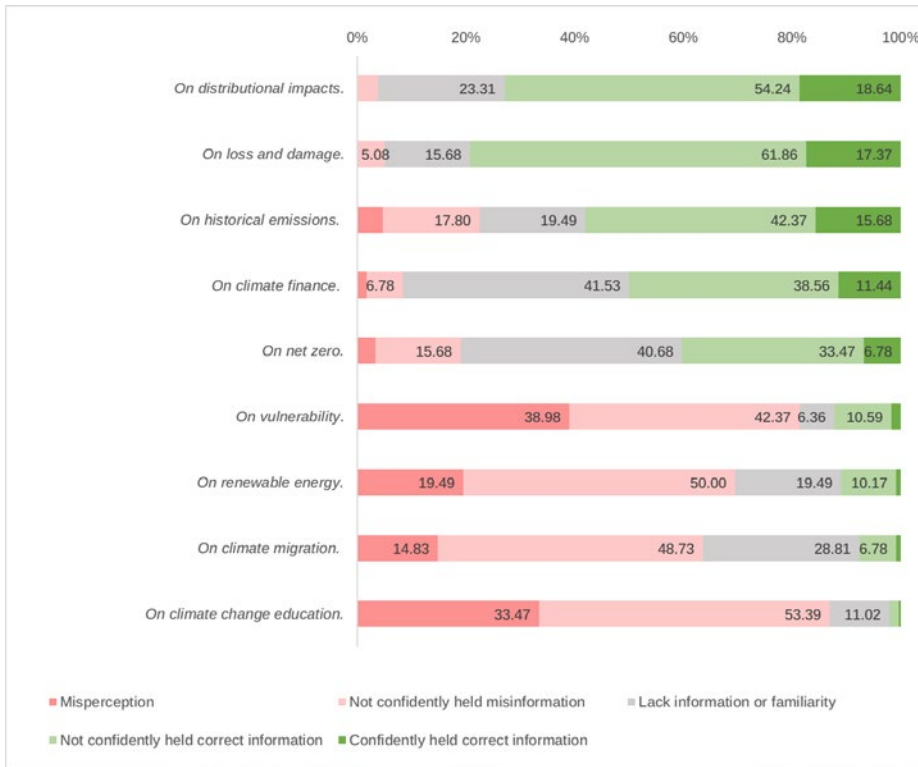
While identifying the “knowledge gaps” in climate science is more apparent from the frequencies, the same cannot be straightforwardly derived from the frequencies for the respondents’ knowledge of climate justice and policy.

As can be inferred from **Figure 3**, the four statements for which a relatively high share of the respondents held correct information, regardless of their level of confidence, were related to topics on loss and damage (79.23%), on distributional impacts (70.88%), on historical emissions (58.05%), and on climate finance (50%). However, three of these topics also yielded some of the highest percentage frequency of unfamiliarity among the respondents: on climate finance (41.53%), on distributional impacts (23.21%), and on historical emissions (19.49%). In addition, just as many respondents held correct information on the concept of net zero (40.25%) as those unfamiliar with it or not informed about it (40.68%).

Interestingly, by contrast, the statements that had deliberately been incorrectly formulated seemed more difficult to answer correctly. The topics that these statements covered showed the four highest shares of misinformation among the respondents, regardless of their level of confidence: on climate change education (86.86%), on vulnerability (82.35%), on renewable energy (69.49%), and on climate migration (63.56%).

Note the formulation of these reverse-scored statements (**Table 3**) and their usage of quantifiers (e.g., “all” to modify “peoples, sectors, and communities”) and qualifiers, such as adverbs of degree (e.g., “equally” in the adjective phrase “equally vulnerable” and “necessarily” in the adjective phrase “necessarily ‘low-carbon’”), focusing adverbs (e.g., “most likely” in the clause “most likely to countries in Europe and North America”), and adverbs of manner (e.g., “legally” in the infinitive modifier “legally bound”). The logical obverse of these qualified phrases renders these four statements correct. However, most respondents agreed with the incorrect statements, either with utmost confidence (mean frequency of 26.69%) or relatively less (mean frequency of 48.62%).

Figure 3. Frequencies for knowledge of climate justice and policy in %, arranged in descending order of the frequency for respondents with “confidently held correct information”; n = 236; frequencies below 5% are not reported.



Sources: Guardiancich & Molina (2020, p. 9)

It might be that, even for a sample of educators trained in test-taking proficiency and test-wiseness,¹ qualified statements on technical or complex topics, such as those in **Table 3**, seem to elude the respondents. Still, the usage of these qualifiers is warranted, if not inevitable, in climate change discourse, where precision and nuance in communication are fundamental to narrowing the certainty of particular claims to consensus or probability² and thus making specific and accurate state-

- 1 Millman, J., Bishop, C. H., & Ebel, R. (1965). An analysis of test-wiseness. *Educational and psychological measurement*, 25(3), 707-726; Carter, K. (1986). Test-wiseness for teachers and students. *Educational Measurement: Issues and Practice*, 5(4), 20-23.
- 2 Gustafson, A., & Rice, R. E. (2020). A review of the effects of uncertainty in public science communication. *Public Understanding of Science*, 29(6), 614-633.

Table 3. Select topics in climate justice and policy for which the statements in the survey were deliberately incorrectly formulated, as indicated by “(-)”; the qualified phrases are marked in bold.

TOPIC	QUESTION; PROPORTION OF MISINFORMED RESPONDENTS
On climate change education	“All parties to the United Nations Framework Convention on Climate Change (UNFCCC) are legally bound to implement and integrate climate change education, as one of the elements of the Action for Climate Empowerment (ACE), into formal and non-formal education systems.” (-) 86.6%
On vulnerability	“As climate change is a global environmental crisis, all peoples, sectors, and communities are equally vulnerable to its impacts.” (-) 82.35%
On renewable energy	“Renewable energy such as bioenergy and solar power are necessarily ‘low-carbon’ because these do not contribute a fair amount of carbon emissions, unlike oil, coal, and gas.” (-) 69.49%
On climate migration	“Based on latest projections, climate change-induced disasters will trigger cross-border flights of millions of new refugees, including women and children, most likely to countries in Europe and North America. ” (-) 63.56%

ments to policymakers³ or the broader public.⁴ In a survey, however, respondents may not pay attention to qualifiers and quantifiers or may interpret them differently than intended, resulting in misapprehension or confusion on their end and, on the researchers’ end, unforeseen wording effects⁵ on the validity of self-reported measures.⁶

3 Kandlikar, M., Risbey, J., & Dessai, S. (2005). Representing and communicating deep uncertainty in climate-change assessments. *Comptes Rendus Geoscience*, 337(4), 443-455.

4 Schneider, J. (2010). Making space for the “nuances of truth”: Communication and uncertainty at an environmental journalists’ workshop. *Science Communication*, 32(2), 171-201.

5 Kalton, G., & Schuman, H. (1982). The effect of the question on survey responses: A review. *Journal of the Royal Statistical Society: Series A (General)*, 145(1), 42-57.

6 Schuman, H., & Presser, S. (1996). *Questions and answers in attitude surveys: Experiments on question form, wording, and context*. Sage.

The tendency of the respondents to agree with these incorrect statements could also be attributed to acquiescence bias. Although we attempted to account for this bias in designing the survey instrument by providing an option for “neither agree nor disagree” or “unfamiliar with the topic,” we did not make it explicitly clear to the respondents that some statements were negated, in which case they could have otherwise paid more careful attention to the wording or the directional content of the items (i.e., how they were scored).⁷

Assuming acquiescence bias accounts for our respondents’ misinformation about the topics of vulnerability, climate migration, climate change education, and renewable energy, the strong probability of bias in the survey results due to reverse scoring and wording effects makes it difficult to accurately assess the respondents’ level of confidence in their knowledge of these topics.⁸

Hence, the proportion of misinformed respondents cannot be reliably used as a criterion for choosing which topics in this item set should be considered as “knowledge gaps.” Instead, the more appropriate, if conservative, criterion to use would be the proportion of the sample that lacked information on or familiarity with topics in climate justice and policy, regardless of the level of confidence in (mis)information that the other respondents demonstrated for each topic. Thus, we can conclude with reservations, that the top six (6) “knowledge gaps” in EIAP members’ understanding of climate justice and policy relate to the following topics, in descending order of frequency: on climate finance (41.53%), on net zero (40.68%), on climate migration (28.81%), on distributional impacts (23.31%), on historical emissions (19.49%), and on renewable energy (19.49%).

7 Schriesheim, C. A., & Eisenbach, R. J. (1995). An exploratory and confirmatory factor-analytic investigation of item wording effects on the obtained factor structures of survey questionnaire measures. *Journal of Management*, 21(6), 1177-1193.

8 Again, it must also be noted that the Cronbach’s alpha value of -0.48 for this item set may point to a lack of internal consistency among the statements (see **Box 1**), possibly indicating, in this instance, that the specific statement on climate change education that had been chosen for this survey did not provide the “best” measure of the respondents’ level of confidence in their knowledge of climate justice and policy and, in particular, of climate change education. The same could be conjectured about the specific statement on vulnerability or the other topics covered by this item set, for that matter.

3.1.3 RELATIONSHIP BETWEEN CONFIDENCE IN EDUCATORS' KNOWLEDGE OF CLIMATE SCIENCE AND CONFIDENCE IN THEIR KNOWLEDGE OF CLIMATE JUSTICE AND POLICY

When asked how much they agreed or disagreed with the statement “I am confident in my knowledge of climate change, its attendant social justice issues and the policies designed to tackle it,” the majority of respondents agreed (47.03%) or agreed with it entirely (8.05%) (**Figure 4**). Unsurprisingly, this self-assessment appears to overestimate their knowledge because, on average, more respondents were misinformed (40.02%) about topics in climate justice and policy than those who were well-informed (37.05%), and there was roughly the same proportion of the uninformed and misinformed (47.54%) about topics in climate science as those who were well-informed (52.46%).

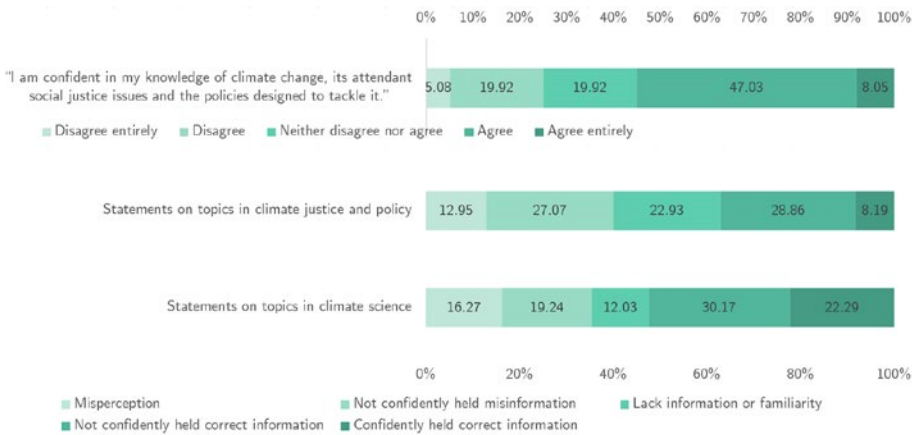
In terms of uncertainty, even among the well-informed, more respondents did not confidently hold correct information about climate science (57.15%) and climate justice and policy (77.89%) than those who did. Conversely, most of the misinformed at least registered some level of uncertainty in their answers on topics in climate science (54.18%) and climate justice and policy (67.64%). We may optimistically interpret these observations. On the one hand, a minority is confident in their misinformation; harbouring such a profound perception of their being right, they are least likely to be receptive to corrective awareness-raising campaigns or initiatives.⁹ On the other hand, a more significant majority of the misinformed, including the uninformed, are more likely to respond to interventions, such as those that EIAP intends to implement, by targeting the “knowledge gaps” identified in this study.

Examining the relationship between the two variables of interest, Spearman's rank correlation performed at the 95% significance level yielded a correlation coefficient (ρ) of -0.009 ($p = 0.891 > 0.05$). These results suggest that there is no statistically significant relationship between educators' confidence in their knowledge of climate science and their confidence in their knowledge of climate justice and policy.¹⁰

9 Flynn, D. J., Nyhan, B., & Reifler, J. (2017). The nature and origins of misperceptions: Understanding false and unsupported beliefs about politics. *Political Psychology*, 38, 127-150.

10 However, we draw this conclusion with caution, given that the sample was not representative of the population. While nonparametric tests, such as Spearman's rank correlation, are less sensitive to deviations from the assumptions of normality, the

Figure 4. The respondents' level of agreement or disagreement with their confidence in their overall climate knowledge (top bar graph) and the mean frequencies for respondents' knowledge of climate justice and policy and their knowledge of climate science (bottom bar graphs); n = 236.



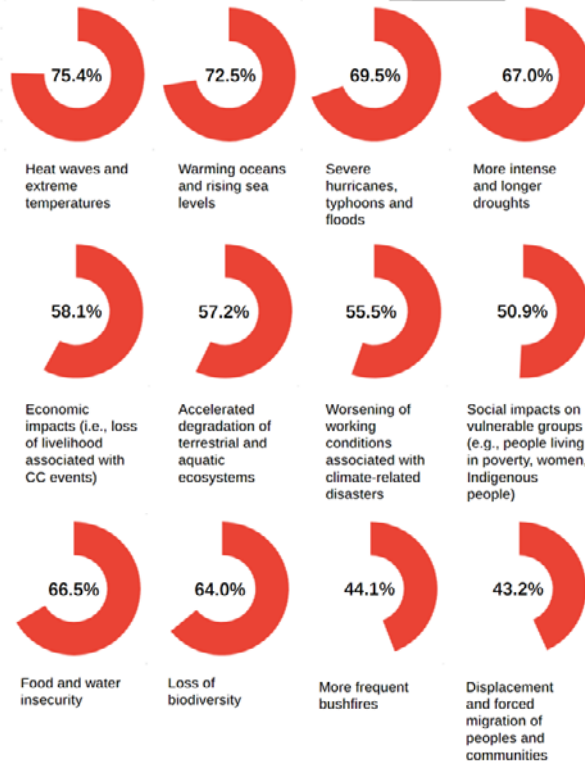
Sources: Guardiancich & Molina (2020, p. 9)

It follows from this conclusion that an educator or education unionist who is confidently well-informed about climate science may not necessarily have the same level of confidence in or knowledge of social justice and policy issues concerning climate change. The opposite of this statement should also hold. Quite possibly, Asia-Pacific educators have yet to fully grasp and unlock the potential of climate science as a “discursive opportunity structure”¹¹ to frame climate justice discus-

survey data must still follow the assumptions of independence and identical distribution. This last assumption might not have been met in practice due to sampling error (see **Box 1**). Suppose we were to administer the same instrument to a different sample (i.e., comprising different individuals) drawn from the same underlying population distribution (i.e., even of the same demographic characteristics as the original sample). In that case, we still might not expect the self-reported measures for each survey item from the new sample to be similar to those obtained from the first sample. By extension, a Spearman’s rank correlation performed on the data from this repeat survey may give different results. For our analysis, however, we consider the correlation results obtained to be at least de facto generalisable to the population.

11 In political communications, a discursive opportunity structure pertains to the way in which political discourse and the wider cultural context – ideas, worldviews, norms, laws, and value judgments – provide opportunities or constraints for social movements to articulate issues, shape the policy agenda, and mobilise for and accomplish advocacy goals. See Koopmans, R., & Statham, P. (1999). Political claims analysis: Integrating protest event and political discourse approaches. *Mobilization: an international quarterly*,

Figure 5. Percentage of all respondents who chose each climate change impact as that which they were most concerned about (n = 236)



Sources: Guardiancich & Molina (2020, p. 9)

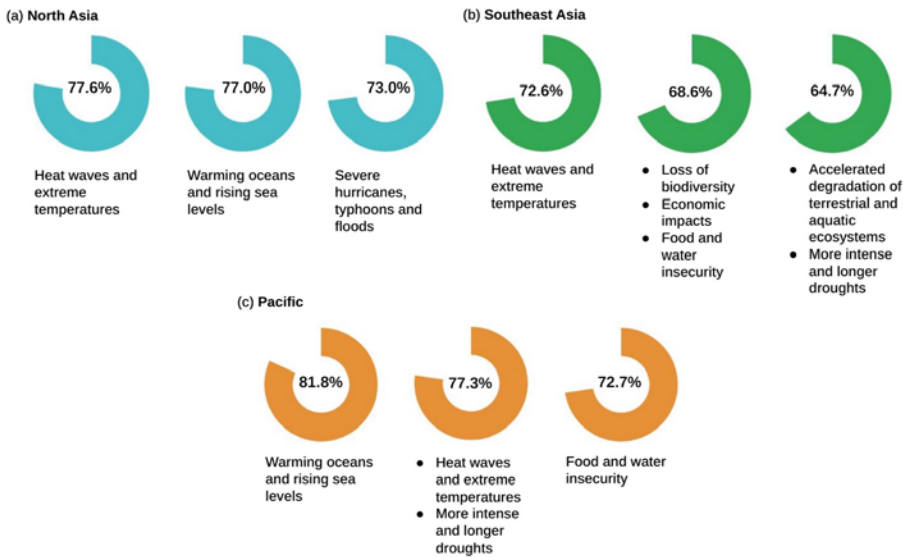
sions and resonate with their sector – a strategy effectively used by youth climate movements, such as Fridays for Future,¹² to call attention to their demands.

Although the two knowledge domains we considered in the study may be interrelated, some unexplored factors, such as cultural values, political beliefs, contextual motivations, and similar subjectivities, can also influence one’s confidence in their knowledge within either domain. Practically, on the part of EIAP, the lack of such correlation also signals

4(2), 203-221; Gamson, W. A. (2004). Bystanders, public opinion, and the media. *The Blackwell companion to social movements*, 242-261.

12 Kern, T., & Opitz, D. (2021). “Trust Science!” Institutional Conditions of Frame Resonance in the United States and Germany: The Case of Fridays for Future. *International Journal of Sociology*, 51(3), 249-256; Jasanoff, S. (2021). Knowledge for a just climate. *Climatic Change*, 169(3-4), 36.

Figure 6. The top three climate change impacts that respondents from the following sub-regions were most concerned about: (a) North Asia, n = 152; (b) Southeast Asia, n = 51; and (c) the Pacific, n = 22.



Sources: Guardiancich & Molina (2020, p. 9)

the need to address the “knowledge gaps” in both domains, in a more holistic effort to advance a science-backed climate justice programme, rather than simply concentrating on one or the other.

3.1.4 CONCERN ABOUT CLIMATE CHANGE IMPACTS

The three most concerning climate change impacts selected across all Asia-Pacific sub-regions were ranked together closely, as shown in **Figure 5**: “heat waves and extreme temperatures,” “warming oceans and rising sea levels,” and “severe hurricanes, typhoons and floods.”

Based on a disaggregated analysis of the responses (**Figure 6**), the overall concerns they registered were fairly consistent across the three sub-regions that made up 95% of the sample. In North and Southeast Asia, over 70% of respondents selected “heat waves and extreme temperatures” as the climate change impact they were most concerned about. On the one hand, this impact ranked second only, tied with “more intense and longer droughts,” for respondents from the Pacific where “warming oceans and rising sea levels” (81.8%) was the chief concern.

Sub-regional differentiation in respondents' concerns also revealed challenges that may be particularly pressing in their contexts. In descending rank order, "severe hurricanes, typhoons and floods" was the third concern for respondents from North Asia, while it did not make the top three for respondents from the other two sub-regions. In Southeast Asia, a known global biodiversity hotspot,¹³ the "loss of biodiversity" ranked second in their concerns, followed by "accelerated degradation of terrestrial and aquatic ecosystems," which received only four per cent points less than the former in terms of frequency.

In addition, other concerns enumerated in write-in responses broadly include not only climate change impacts but also their possible environmental drivers:

- Forest degradation and deforestation due to mining, industrial agriculture, built-up development, and other land uses
- Changes in cropping cycles and potential agricultural productivity losses
- Shifting seasonal patterns of precipitation or water availability
- Melting of glaciers and ice sheets (e.g., in High Mountain Asia)
- Floods and landslides, and their resulting damage to persons or property, due to extreme weather events
- Air pollution due to operating fossil fuel power plants, intensive farming practices, and fossil fuel-powered vehicles
- GhG emissions from the livestock industry

It is clear from these responses that any learning resources (e.g., webinars and informational videos) that EIAP intends to produce for its climate justice programme must be tailored to the target sub-region. EIAP must be mindful of highlighting climate change impacts most pertinent to the sub-region, and it could also prove advantageous in addressing knowledge gaps to include impacts that are frequently overlooked in the mainstream.

13 Hughes, A. C. (2017). Understanding the drivers of Southeast Asian biodiversity loss. *Ecosphere*, 8(1), e01624.

Table 4. List of key informants

SUB-REGION	COUNTRIES	EIAP AFFILIATES	INFORMANTS
North Asia	Japan	Japan Teachers' Union (JTU)	Tamaki Terazawa, Director of International Affairs
	Korea	Korea Korean Teachers and Education Workers Union (KTU)	Hyunsu Hwang, International Director
Pacific	Australia	Australia Education Union (AEU)	Meredith Peace, Deputy Federal President; Kevin Bates, Federal Secretary
	Fiji	Association of The University of the South Pacific Staff (AUSPS)	Hilda Sakiti-Waqa, representative
South Asia	India	All India Primary Teachers' Federation (AIPTF)	Ram Pal Singh, President
	Sri Lanka	All Ceylon Union of Teachers (ACUT)	Angela Wijesinghe, President
Southeast Asia	Philippines	Samahang Manggagawang Pilipino-National Alliance of Teachers and Office Workers (SMP-NATOW)	Joseph Jovellanos, National President
	Singapore	Singapore Teachers Union (STU)	Mike Thiruman, General Secretary; Kai Low, Deputy Director for Industrial Relations, Communications, and Membership

3.2 Key Informant Interviews

This section presents a narrative summary of the key informant interviews conducted with union leaders and representatives from four Asia-Pacific sub-regions. The following discussions are guided by the questions in **Table 3**, which aimed to gather the informants' insights on and recommendations for developing, facilitating, and implementing climate justice policies and measures in schools, trade unions, and beyond.

Unless stated otherwise, the findings reported here do not necessarily reflect the experiences of all the education unions in the countries where the informants are based (**Table 4**).

3.2.1 NORTH ASIA

JAPAN

In Japan, climate justice is still a niche topic. It is rather difficult for people to think of climate change when referring to climate-induced disasters as they are often described as typical of “abnormal weather,” said Tamaki Terazawa, JTU's Director of International Affairs. As such, the general public might view the intensifying floods and landslides that frequently visit the country and its neighbours as part of natural cycles rather than as a signal of anthropogenic climate change.

Within the JTU, science teachers are more well-informed interested in discussions about climate change. Terazawa shared that at the union's annual national research conference teachers discuss climate change topics because they believe a focus on research and education is necessary to equip themselves with evidence-based knowledge.

Among policymakers and political leaders, climate policy discussions typically converge with current debates on nuclear power. In its national agenda to achieve zero emissions by 2050, the Japanese government expressed interest in maximising the use of existing nuclear reactors,¹⁴ even adopting a rule change that effectively allows

14 Associated Press. (2022, December 22). After the Fukushima disaster, Japan swore to phase out nuclear power. But not anymore. **NPR.org**. <https://www.npr.org/2022/12/22/1144990722/japan-nuclear-power-change-fukushima>

extending the operational life of ageing reactors in December 2022.¹⁵

According to Terazawa, the JTU echoes the sentiments of most people in Japan, who largely oppose loosening restrictions on nuclear power plants, much less the planned development of new, next-generation reactors. Notwithstanding post-Fukushima anxieties,¹⁶ it is short-sighted to suppose that such an anti-nuclear stance translates into favouring fossil-fuel reliance. However, there remains a challenge to reimagine Japanese society beyond fossil fuel dependence. For Terazawa, unions and other advocates need to proffer cleaner alternative energy sources.

Moreover, transitioning workers from the fossil fuel sector is a complex issue in Japan, given the country's widening income inequality.

Terazawa said some parents are understandably concerned about their job security in the face of the government's proposed decarbonisation plans.

Teaching young people about climate change aligns well with the themes around sustainable societies in global citizenship education,¹⁷ which is one of JTU's main thrusts. Teachers want their students to have a broader and more diverse view as global citizens but a lack of instructional materials with Japanese translation is a hurdle, according to Terazawa. However, the overwhelming workload remains the biggest barrier for educators and education unionists in Japan to engage more conscientiously on matter related to climate justice, Terazawa said.¹⁸

15 The current global energy crisis compelled the administration to recommit to nuclear technology instead of phasing it out, as initially planned, by 2030. Previously, companies that had sought approvals to restart their reactors beyond the 60-year cap had to contend with stricter safety checks in the wake of the 2011 Fukushima nuclear disaster. See Wang, Q., Chen, X., & Yi-Chong, X. (2013). Accident like the Fukushima unlikely in a country with effective nuclear regulation: Literature review and proposed guidelines. *Renewable and Sustainable Energy Reviews*, 17, 126-146.

16 Ho, M. S. (2014). The Fukushima effect: explaining the resurgence of the anti-nuclear movement in Taiwan. *Environmental Politics*, 23(6), 965-983.

17 Motani, Y. (2007). The emergence of global citizenship education in Japan. Stevick & B. Levinson (Eds.), *Reimagining civic education: How diverse societies form democratic citizens*, 271-291.

18 Tomohiro, O. (2022, December 25). 'Work without limits': Japan's teachers battle for change. *The Japan Times*. <https://www.japantimes.co.jp/news/2022/12/25/national/teachers-overwork-change/>

KOREA

KTU International Director Hyunsu Hwang acknowledged the union members' contributions to raising awareness of contemporary climate issues in the classroom but noted that most members, and broader Korean society, might not recognise the urgency of climate change presently, he said.

This honest assessment appears worrisome, particularly in a political landscape of general regression in relation to the environment and climate issues, Hwang wrote, describing the country's recent shift to more conservative governance.¹⁹ Several other developments are causing concern for the union and civil society in South Korea: the plans to build coal-fired power plants,²⁰ expand nuclear power,²¹ and construct new airports.²²

Under the new education ministry, Hwang shared the lack of improvement in the curriculum for ecological conservation, which was supposed to be a highlight of the 2022 revised curriculum. The KTU hopes to engage with the government in enhancing this curriculum and establishing climate-focused departments in the Ministry of Education and City Offices of Education. The union will likewise urge its members to promote carbon neutrality in schools and build their capacities, through in-service training, to deliver climate change education through a climate justice lens.

The KTU is yet to introduce just transition to its members. Hwang senses from the public a general lack of awareness about the urgency of the climate crisis or disinterest in understanding its differential impacts. He posited two reasons why organising and mobilising for climate justice in Korea is challenging. Conditioned in the rituals of meri-

19 Mendez, T. (2022, September 8). South Korea: Green Growth or Greenwashing? *Pursuit (The University of Melbourne)*. <https://pursuit.unimelb.edu.au/articles/south-korea-green-growth-or-greenwashing>

20 GCR Staff. (2021, October 3). Activists target \$4.3bn coal plant under construction in Korea. *Global Construction Review*. <https://www.globalconstructionreview.com/activists-target-43bn-coal-plant-under-construction/>

21 Kim, H. & Lee, J. (2022, September 8). As S.Korea moves to expand nuclear power, disquiet grows among nearby residents. *Reuters*. <https://www.reuters.com/world/asia-pacific/skorea-moves-expand-nuclear-power-disquiet-grows-among-nearby-residents-2022-09-08/>

22 Yonhap. (2022, April 26). S. Korea seeks to build new Busan airport as country's first 'floating airport'. *The Korea Herald*. <https://www.koreaherald.com/view.php?ud=20220426000585>

tocratic advancement, the more affluent can hardly sympathise with those who lack the opportunities or resources to protect themselves against climate disasters. Thus viewed, upward social mobility becomes a buffer against vulnerability. Hwang also referred to “negative and passive thoughts” as another deterrent to climate action. “Nothing will change even if I work hard! ‘Even if it’s not me, someone else will do it,’ ‘Can taking action make a difference?’ These are the questions that passive people hold,” he wrote. Such hopelessness and sense of powerlessness in the face of climate change, a crisis of catastrophic scale, are indeed consistent with the literature and social consensus on the effects of climate-related distress and some people’s coping mechanisms, such as loss aversion, rationalisation of inaction, and shifting of responsibility to others.²³

3.2.2 PACIFIC

AUSTRALIA

Within the AEU, Deputy Federal President Meredith Peace contended that members have varying levels of awareness and comprehension of climate change, depending mainly on their geographic location and experiences with recent disasters in Australia, such as bushfires²⁴ and floods.²⁵ It helped a great deal that the media coverage of these issues put them front and centre in people’s consciousness and drew the international community’s attention to climate change and its dramatic impacts.²⁶

- 23 Moser, S. C. (2016). Reflections on climate change communication research and practice in the second decade of the 21st century: what more is there to say? *Wiley Interdisciplinary Reviews: Climate Change*, 7(3), 345-369.
- 24 Van Oldenborgh, G. J., Kriken, F., Lewis, S., Leach, N. J., Lehner, F., Saunders, K. R., ... & Otto, F. E. (2021). Attribution of the Australian bushfire risk to anthropogenic climate change. *Natural Hazards and Earth System Sciences*, 21(3), 941-960.
- 25 Johnson, F., White, C. J., van Dijk, A., Ekstrom, M., Evans, J. P., Jakob, D., ... & Westra, S. (2016). Natural hazards in Australia: floods. *Climatic Change*, 139, 21-35.
- 26 Mann, R. (2021, January 19). Australia’s 2019-20 catastrophic bushfire season affected 80% of Australians. *The Weather Network*. <https://www.theweathernetwork.com/en/news/weather/severe/this-day-in-weather-history-january-19-2020-australian-bushfires>; Tarabay, J. (2020, January 21). Why These Australia Fires Are Like Nothing We’ve Seen Before. *The New York Times*. <https://www.nytimes.com/2020/01/21/world/australia/fires-size-climate.html>

Kevin Bates, the AEU Federal Secretary, agreed that educators' interest in climate justice could be largely place-based. In Queensland and similar places that are within the orbit of coal mining companies, people are abreast with the just transition issues facing extractive industries in the country.²⁷ As such, people are aware that when just transition policies are not in place to cushion them from the shutdown of these plants or mining sites, households suffer, “kids leave, school numbers drop, and then it starts to impact our members' jobs,” Peace said, adding that the sense of having to provide additional support to the children in these communities, beyond the classroom, may cause undue strain on educators' mental health.

“The union movement here, rightly, is very focused on fossil fuel industries because we need to,” Peace clarified. “It's probably playing a role in shifting people's thinking perhaps a bit more quickly than it might. But it's also, from the positive side, getting people to focus on renewable energy. Our members do have a real interest, like anyone in the community, in these issues.”

At the sub-regional level, Australians share in the concern of Pacific island countries about rising sea levels. In northern Australia, Torres Strait Islander people are particularly vulnerable to these impacts on their culture and livelihoods, the loss of land, and the degradation of farmlands.²⁸ “It's also really important to keep that in mind when we're dealing with climate change and a just transition and climate justice issues,” Bates said of this close cultural and environmental connection between Australia's First Nations people and other Pacific Islanders “because often people think about [climate change] when you talk about fires and floods. It's in people's backyards, too.”²⁹

27 De Valck, J., Williams, G., & Kuik, S. (2021). Does coal mining benefit local communities in the long run? A sustainability perspective on regional Queensland, Australia. *Resources Policy*, 71, 102009; Williams, G., & Nikijuluw, R. (2020). The economic and social benefit of coal mining: the case of regional Queensland. *Australian Journal of Agricultural and Resource Economics*, 64(4), 1113-1132.

28 McNamara, K. E., Westoby, R., & Smithers, S. G. (2017). Identification of limits and barriers to climate change adaptation: case study of two islands in Torres Strait, Australia. *Geographical Research*, 55(4), 438-455; Cheer, K., Watkin Lui, F., Shibasaki, S., Harvey, A., Grainger, D., & Tsey, K. (2020). The case for a Torres Strait Islander-driven, long-term research agenda for environment, health and well-being. *Australian and New Zealand Journal of Public Health*, 44, 177-179.

29 Lyons, K. (2022, September 26). Australia violated the rights of Torres Strait Islanders by failing to act on climate change, the UN says. Here's what that means. *The Conversation*. <https://theconversation.com/australia-violated-the-rights-of-torres-strait-islanders-by->

Through EIAP, Bates suggested, the AEU could ally with other affiliates in providing support for training and education programmes on climate justice issues that educators would like to see prioritised in their sub-regions or across the Asia-Pacific. Unions must also help their members find their footing in climate discussions inside the classroom, as many are still unsure how climate justice figures into their subject areas outside STEM.

The throughline in the union's climate justice work is still climate change education, and "there's real power in understanding this motivation for our membership, which is based around students," Bates said. "Because, from our perspective, what we bring to the table when we talk about these things is a direct ability to influence the next generation positively so that, hopefully, we can bring about sustainable change."

Regarding just transition, Peace described the level of awareness across the membership as reasonably limited. Both Peace and Bates pointed out that a just transition focuses on the reality that climate change exacts disproportionate impacts on people who are already disadvantaged, and education unions must make that connection clearer to their members. The AEU, for instance, has for decades campaigned for increased funding for public education, particularly for students from marginalised backgrounds – the very communities often left behind in education as they struggle to survive economic crises and the worst impacts of climate change.

As part of Australia's broader trade union movement, the AEU has ensured that educators' interests are foregrounded in national-level just transition discussions with other progressive organisations. However, Bates said there is still much work to do in elucidating the granular connections between climate justice and the work that the education union focuses on for AEU members. Those who work in technical and further education may consider how they can help transition workers who work in fossil-fuel industries through training, apprenticeships, and reskilling. "We want to make sure that the government constantly refers back to us and our members when they're talking about how those skills should be rolled out around the country," Bates said.

Peace also sees an opportunity to use a climate justice programme

to animate their members who may not otherwise be as active in their regular campaigns but who are passionate about climate advocacy. According to Peace and Bates, educators organising and mobilising for climate justice would have to confront the same challenges that beset education systems in Australia: burnout among education workers, staff and teacher shortages, and mounting workload.³⁰

Apart from these, however, trade unions in the country can exercise their civil and political freedoms to engage in national and community debates around climate change – an enabling environment for civil society that not all unions in the rest of the region have.

“From that perspective, there’s a burden, if you will, that falls on our organisation to make sure that we use that privilege to maximum advantage because, otherwise, it’s an opportunity lost in the climate debate and climate action areas,” Bates said. “Every opportunity lost has the potential to cost you significantly across the planet in terms of helping people to realise that all of us have a responsibility beyond our backyard.”

FIJI

AUSPS members are quite aware of climate change and are interested in discussions around it, particularly concerning its impacts on Pacific Island countries. The programmes and courses taught at the University of the South Pacific (USP) similarly integrate climate change themes into teaching–learning across various disciplines, covering topics such as food and water security, mobility, human security, social protection, and infrastructure development. According to Dr. Hilda Sakiti-Waqa of the AUSPS, these are also some of the most pressing issues concerning climate and the environment, aside from coastal erosion, intensifying cyclones, flooding, sedimentation, land use conversion of forests for agriculture, and mangrove deforestation.

However, Sakiti-Waqa said that discussions on climate justice, especially about the equitable distribution of responsibilities and burdens for climate change mitigation, require more attention. While some students are researching, for example, how climate change impacts

30 Collie, R. J., & Mansfield, C. F. (2022). Teacher and school stress profiles: A multilevel examination and associations with work-related outcomes. *Teaching and Teacher Education*, 116, 103759.

gender equity, education unions and like-minded groups could still launch more efforts on climate action.

Regarding climate policy, the AUSPS views capacity development, in tandem with research, as a crucial area for engagement. The university, after all, plays a leading role in the Pacific in providing platforms for climate change and climate justice training, Sakiti-Waqa said. To support this effort, the union engages with academics, other educators, and advocates from regional and international institutes and agencies, such as those involved in implementing the 2030 Agenda and the Sustainable Development Goals (SDGs).

For Sakiti-Waqa, two environmental policies have the potential to enhance Pacific unions' climate justice work. In August 2022, the treaty negotiations on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ), otherwise known as the "Treaty of the High Seas," saw fitful progress toward adopting the agreement.³¹ Once adopted, this new instrument shall set more sustainable and conservation-oriented standards and guidelines (e.g., environmental impact assessments and needs-based capacity-building for marine protection), within the framework of the United Convention on the Law of the Sea (UNCLOS), for human activities at sea.³²

In August 2021, Pacific Islands Forum (PIF) Leaders issued the Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise ("PIF Declaration") in the sub-region. The declaration aims to protect the existing boundaries of island states from the harmful effects of climate change, according to Sakiti-Waqa.³³ Interpreting UNCLOS in good faith, the PIF Declaration foregrounds the principles of fairness, justice, and equity in considering the implications

31 Payne, C. (2022, August 30). High seas biodiversity will have to wait. *International Union for Conservation of Nature (IUCN)*. <https://www.iucn.org/blog/202208/high-seas-biodiversity-will-have-wait>

32 Epps, M. (2022, August 31). Key takeaways from treaty negotiations for Biodiversity Beyond National Jurisdiction (BBNJ), United Nations HQ, New York. *International Union for Conservation of Nature (IUCN)*. <https://www.iucn.org/blog/202208/key-takeaways-treaty-negotiations-biodiversity-beyond-national-jurisdiction-bbnj-united>

33 Pacific Islands Forum. (2021, August 6). Declaration on Preserving Maritime Zones in the Face of Climate Change-related Sea-Level Rise. *Pacific Islands Forum Secretariat*. <https://www.forumsec.org/2021/08/11/declaration-on-preserving-maritime-zones-in-the-face-of-climate-change-related-sea-level-rise/>

of sea-level rise for baselines and maritime zones.³⁴

These are only a few examples of where the union may engage in climate policy, although the AUSPS has yet to strategise in this respect. Internally, more work must be devoted to raising members' awareness of just transition, Sakiti-Waqa said. She also mentioned that, with more funding, they could be further equipped to organise and mobilise for climate justice.

3.2.3 SOUTH ASIA

INDIA

AIPTF members are generally aware of climate change impacts but are less familiar with climate justice, said the union's president, Ram Pal Singh. He supposed that mounting public pressure and exposure to the climate discourse would lead the public to rally around climate justice, especially at the local level. Although the AIPTF's education programme for its members does not yet prioritise climate justice, the union is lobbying the government to integrate climate change education into curricula and formal education structures.

Singh cited more severe and frequent heat waves, landslides, floods, and extreme rains as some of India's most pressing environmental and climate issues. These impacts are compounded by urban sprawl, population growth, and the fact that India is the world's second-largest coal consumer and producer, behind China, as of 2021.³⁵ In addition, Singh noted that these climate concerns are increasingly bearing on gut-level issues. For instance, the seasonal variability has shifted so much that rains are occurring out of sync with crop cycles, resulting in agricultural productivity losses.³⁶ In the education sector, weather extremes like

34 Anggadi, F. (2022). Establishment, notification, and maintenance: The package of state practice at the heart of the Pacific Islands Forum declaration on preserving maritime zones. *Ocean Development & International Law*, 53(1), 19-36.

35 Parkin, B. (2021, October 28). COP26: India's coal habit proves hard to kick despite pressure to set climate targets. *Financial Times*. <https://www.ft.com/content/edf49d4b-43db-4395-95b7-c85ce8fd3ae9>

36 Shukla, A. (2023, January 20). Landless, tenant farmers miss out on compensation for crop loss by weather events. *Mongabay*. <https://india.mongabay.com/2023/01/climate-change-vulnerabilities-pushing-landless-farmers-to-the-brink/>

heat waves are disrupting learning and, in several north Indian states, compelling administrators to adjust schooling hours, organise classes remotely or online, and start annual summer breaks much earlier than planned.³⁷

For the benefit of education unionists, Singh argued that an information drive could help them more proactively engage in policy discussions on climate adaptation mechanisms in schools and learning institutions. Most policymakers have yet to realise that educators have just as much at stake in this area as other stakeholders. Through innovative approaches to climate change education, educators can relate local climate impacts to the global crisis and stress the urgency of climate action.

More importantly, Singh believes that by involving children and young people in designing and formulating such policies, the government can help foster an enabling environment for climate justice work among unions and other civil society organisations. He claimed, however, that despite the unions' efforts to encourage policymakers to prioritise climate action, there is a lack of policy support in this area.

The AIPTF is looking to explore just transition as a guiding framework to organise union programmes tailored to specific education sub-sectors' needs, types, and sizes of the workforce engaged in sustainable development issues. It also offers a leverage point for education workers and their representatives to participate in social dialogues and other policymaking processes that touch on workplace health and safety conditions.

Singh admitted that AIPTF members are not well-versed in just transition because climate justice is not currently high on the union's agenda. The members' grasp of how climate change affects the workplace is similarly limited. For Singh, the chief challenge to and driver of organising and mobilising for climate justice lies at the enterprise level. Here, the union's local branches know first-hand how to communicate with relevant stakeholders and wield considerable control over their programmes and projects in schools and communities. For example, the learning loss due to school closures following climate disasters in some areas could provide much-needed context for why local climate

37 Nugent, C. (2022, May 6). India's Unbearably Hot Schools Show We Must Climate-Proof Education. *Time*. <https://time.com/6174322/india-schools-heat-climate-change/>

action is just and necessary. He believes such grassroots organising should underpin the union’s climate justice work.

SRI LANKA

In Sri Lanka, the public perception of the climate emergency is rooted in the persistence of environmental issues, such as the deadly haze that covered the nation in December 2022. The government suspended classes as the haze containing high concentrations of particulate matter, a type of air pollutant hazardous to lungs, hung over parts of the country, including its capital, Colombo.³⁸ ACUT President Angela Wijesinghe shared reports of respiratory problems in children and adults in the wake of the haze and storm.

Wijesinghe cited some other issues, besides transboundary air pollution, that are of general environmental concern rather than directly related to climate change. She argued that these local issues largely result from indiscriminate anthropogenic activities (e.g., soil and sand excavation, deforestation, unplanned development) endorsed, if not bankrolled, by “corrupt politicians and government officials.” She levelled the same criticisms at the high-level leaders and bureaucrats responsible for the economic collapse³⁹ and political unrest that triggered months-long protests across the island nation in 2022.⁴⁰

Struggling to cope with the country’s crushing debt and cost-of-living crisis, Sri Lankans have been compelled to devote their energies to basic survival, Wijesinghe wrote. “It is very difficult to get them interested in other issues [that are of] low priority in their day-to-day lives,” the assumption being that, for all the worsening climate impacts on their communities, the public has yet to deem climate change as immediate a threat to their well-being and quality of life as the country’s roiling economic crisis.

In fact, Wijesinghe described ACUT members’ level of awareness of the just transition concept as “very low.” For their small union, launching

38 Mallawarachi, B. (2022, December 9). Sri Lanka shuts schools as extreme weather brings pollution. *ABC News*. <https://abcnews.go.com/International/wireStory/sri-lanka-shuts-schools-extreme-weather-brings-pollution-94837896>

39 Human Rights Watch. (2022, August 16). Sri Lanka: Economic Crisis Puts Rights in Peril. <https://www.hrw.org/news/2022/08/16/sri-lanka-economic-crisis-puts-rights-peril>

40 Kugelman, M. (2022, October 6). Sri Lanka’s Economic Crisis Is Still Spiraling. *Foreign Policy*. <https://foreignpolicy.com/2022/10/06/sri-lanka-economic-crisis-protests-imf/>

a dedicated awareness-raising programme on this subject might strain their organisational capacity. However, she maintained that the union has already actively engaged in health and environmental programmes, while not precisely comparable to just transition initiatives, still aligns with their past or ongoing development cooperation projects. One of theirs, in cooperation with SAKU–Sri Lanka Friendship Association (SSLFA), is about promoting an active, healthy lifestyle for children by, teaching pre-schoolers and their parents about organic agriculture.

3.2.3 SOUTHEAST ASIA

PHILIPPINES

Filipino education unionists are no strangers to climate and environmental calamities, helping provide relief to their fellow teachers who have suffered from disasters. For instance, in the aftermath of Typhoon Haiyan in 2013, EIAP affiliates in the Philippines, including the SMP-NATOW, showed solidarity⁴¹ with their affected colleagues through rehabilitation⁴² and recovery efforts.⁴³

The union's environmental initiatives are not limited to disaster response. SMP-NATOW National President Joseph Jovellanos commended their members who have been actively involved in clean-up drives along shores and tree and mangrove planting activities. The union also cooperates with some environmental groups in campaigns to recycle plastic bottles and reduce the use of single-use plastics, styrofoam, and paper on campuses. As educators, SMP-NATOW members view their role as central to steering young people towards green jobs and reimagining basic education to advance a just transition.

Filipino teachers themselves are rethinking how their jobs could or

41 Education International. (2013, November 15). Philippines: Teacher community shows international solidarity. <https://www.ei-ie.org/en/item/19030:philippines-teacher-community-shows-international-solidarity>

42 Education International. (2014, April 2014). Philippines: EI affiliates assess post-typhoon needs. <https://www.ei-ie.org/en/item/19229:philippines-ei-affiliates-assess-post-typhoon-needs>

43 Education International. (2014, January 29). Philippines: Trade unions act to rebuild education after tsunami. <https://www.ei-ie.org/en/item/19106:philippines-trade-unions-act-to-rebuild-education-after-tsunami>

should be retooled, which would involve continuing professional development focussed on upskilling or reskilling, such as on the responsible use of appropriate teaching-learning technologies, to help them become more effective champions of education for sustainable development.

Jovellanos pointed out that, as early as 2017, SMP-NATOW leaders were already discussing what a just transition would mean for the education sector and had expressed fears that, in a rush to adopt smart technologies, the teachers' role might be relegated to being mere providers of content for modular learning. For them, he said, discussions about a just transition are inextricably linked to their future of work and their general wariness about ed-tech.

To assert that the current push for a low-carbon economy could entail diminishing educators' role in the public sector and devaluing the profession — in favour of automated, ed-tech-driven teaching-learning — might initially seem speculative. However, their anxieties in this regard come from a position of precarity. In the Philippines, where the private sector has carved out a niche in education, some teachers lack job security and are thus conditioned to think that they are dispensable, that their jobs have no place amid more advanced modalities of work and means of production. The notion of a climate-adaptive workforce geared toward resource efficiency, and assisted by artificial intelligence, as Jovellanos conjectured, may further fuel distress among precarious education workers, whose professions are underappreciated as it is and hardly regarded as an essential public good. This sense of dread that Jovellanos expressed, the stress of feeling under constant threat from technology, harks back to the sceptical attitude that most workers in the energy industry historically held towards climate policies.⁴⁴ These are also precisely the fears that a just transition seeks to appease by demanding that public sector jobs, like educators', be protected and duly recognised as an integral part of the broader project to transform the global economy.

While the union does not yet have a specific resolution on climate justice, Jovellanos said that their advocacy for SDG 4 on quality education already encompasses the need to integrate climate change

44 Van Rensburg, W. (2015). Climate change scepticism: A conceptual re-evaluation. *Sage Open*, 5 (2).

education interdisciplinarily and prepare students for green jobs. He said it is challenging to mount a dedicated climate justice campaign due to financial and logistical constraints.

Jovellanos sees a possible starting point for a more decisive climate justice advocacy in the Philippine education sector. He recommended that different federations of teachers and educators, instead of just a single union, come together and lobby the government to take action on climate change. He noted that the SMP-NATOW has not yet had any formal engagement with lawmakers or policymakers, but he sees potential in making inroads with local governments and leaders of local unions.

Education unions could assist in grassroots efforts, Jovellanos explained, by engaging with and mobilising community members, especially in barangays or villages, and raising greater awareness of climate change issues via “massive information dissemination” across all possible avenues, including social media.

SINGAPORE

The level of interest in climate justice among Singapore Teachers' Union (STU) members is not as high as it could be, said Mike Thiruman, the union's general secretary. However, three major policy developments are expected to raise their awareness and generate more engaged climate discourse: (1) the government's commitment to mounting a comprehensive effort to mitigate climate change impacts; (2) the country's commitments at COP27; and (3) the recently launched Forward Singapore exercise.

The Singaporean government has pledged to roll out different climate change mitigation measures worth SGD100 billion against rising sea levels in the next century,⁴⁵ which Singapore Prime Minister Lee Hsien Loong first outlined this vision at a National Day rally. Thiruman expects this funding to benefit education in the long run and compel the sector to engage more enthusiastically in issues at the intersection of climate change and education.

Thiruman also mentioned that the government had placed a

45 Reuters Staff. (2019, August 18). Protecting Singapore from rising sea levels could cost S\$100 billion. *Reuters*. <https://www.reuters.com/article/us-singapore-economy-prime-minister-idUSKCN1V80GU>

renewed emphasis on sustainability. The newly-renamed Ministry of Sustainability and Environment carried this commitment to COP27, where Singapore proposed a three-year Sustainability Action Package (SAP).⁴⁶ Kai Low, STU’s deputy director, added that another significant initiative to put sustainable development front and centre is Forward Singapore, a government-led exercise zeroing in on several thematic pillars on which political leaders engage with Singaporeans in year-long nationwide reviews of policy priorities and consultations for a so-called renegotiated social compact.⁴⁷

Following these developments, Thiruman noted that teachers and education unionists had been engrossed in discussions on greening practices. As workers, they are interested in learning about adapting to these green imperatives, especially the skills and technologies that they would need. Because the Ministry of Education in Singapore already expects teachers to go beyond the curriculum in their efforts to address climate change, Thiruman believes that they can also be agents of change outside the classroom by collaborating, for instance, on the wholesale project to “maintain our coastal and sea-border environment.”

Singapore, an island nation, is particularly vulnerable to the impacts of sea level rise,⁴⁸ as even a slight increase can cause flooding that could devastate the entire country’s population. Other main environmental concerns also have much to do with the country’s geography because as a city-state with limited land resources, Singapore chiefly relies on imports for its food supply. Amid worsening anthropogenic climate change, agricultural production in Southeast Asia could suffer, resulting in crop loss-induced price shocks in Singapore.

46 See Fu, G. (2022, November 15). National Statement by Ms Grace Fu, Minister for Sustainability and the Environment, at the UNFCCC 27th Conference of Parties (COP27) High Level Segment on 15 November 2022. *Ministry of Sustainability and the Environment Singapore*. <https://www.mse.gov.sg/resource-room/category/2022-11-15-national-statement-at-cop27-high-level-segment>. According to Fu, the SAP aims to achieve net-zero by 2050 by placing a “greater focus on capacity-building in areas like adaptation and resilience-building strategies, green project management and financing, low carbon development and carbon markets.”

47 Sim, D. (2022, September 3). Forward Singapore campaign: what’s in it for Singaporeans, and for leader-in-waiting Lawrence Wong? *South China Morning Post*. <https://www.scmp.com/week-asia/politics/article/3191044/forward-singapore-campaign-whats-it-singaporeans-and-leader>

48 Yousefpour, R., Prinz, A., & Ng, C. (2020). Public perceptions of climate change adaptation in Singapore dealing with forecasted sea level rise. *Human and Ecological Risk Assessment: An International Journal*, 26(6), 1449-1475.

The city-state is also mindful of its energy use, ensuring to build green infrastructure, incorporate green materials and energy-efficient technologies such as solar panels, and design its urban spaces sustainably. In schools, amid rising temperatures, teachers and students, are advised against using air-conditioning. Instead, as extreme heat waves become no longer transient, Thiruman said, “the capacity of the buildings to adapt will be incorporated to ensure that the learning and teaching conditions are comfortable and conducive, more often than not, in newer schools.” It might mean climate-proofing ageing school buildings or deep-retrofitting them and strategising the best architecture or building layout for new schools that favours natural ventilation and reduces the need for air-conditioning in the summer.

Given the national plans in place to promote sustainability and transform most workers’ sectors into green industries, there is a growing conversation in the broader labour movement in Singapore to mobilise workers, including educators, to support a transition to a low-carbon economy. The STU has yet to engage in specific climate policy concerns because the decision on how the union must go about its climate justice work lies in educators’ readiness to engage, according to Low. They argued that the main factor to consider is the teachers’ and their members’ workload, as they are already preoccupied with many tasks, and it would be difficult for them to also focus on campaigning on environmental and climate change issues.

The STU does not foreclose prospects for involving teachers more earnestly in climate discussions. For instance, Low mentioned that many teachers cite climate change’s impacts on biodiversity to situate conversations with their students about the trade-offs in economic and environmental policies.

PART 4

Conclusion and Recommendations

4.1 Baseline Assessment: Knowledge Gaps and Capacity Development Needs

Overall, in terms of their knowledge of climate science, the survey sample was divided into roughly equal proportions of those who were well-informed and those who were either uninformed or misinformed. Regarding climate justice and policy, two in five respondents were misinformed. Despite these findings and the knowledge gaps identified from the survey (**Box 2**, as discussed in **Sections 3.1.1.** and **3.1.2.**), most respondents were confident in their assumed knowledge. Based on supplementary data from the key informant interviews, we briefly discuss what could account for this disconnect in **Section 4.2.**

The relationship between the respondents' confidence in their knowledge of climate science and their confidence in their knowledge of climate justice and policy has programmatic implications. In its future interventions, EIAP must impress upon education unions how knowledge of foundational climate science can lay the groundwork for effective climate justice advocacy and why it is crucial to stimulate informed climate discussions within their ranks. Fostering a deeper appreciation for climate science inspires greater confidence in teachers

For education unions keen to engage in the ongoing climate justice discourse, the urgent task is to determine synergies between and value in addressing these knowledge gaps and their core advocacies concerning quality education, privatisation in and of education, decent work, human and trade union rights, and equity and inclusion in the education sector, among other thematic priorities. The EIAP climate justice programme should be instrumental in helping educators recognise climate justice as, in fact, already inexorably linked to these causes that their unions have long been advancing.

and education support personnel when asserting their stances on various climate change issues. It empowers them to raise awareness among their students, communities, and fellow unionists about the urgency of climate action.

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We caution, however, against perpetuating the reductive assumption that scientific literacy or awareness-raising alone would make for effective climate advocacy. These efforts should not so much address a supposed lack of knowledge among educators but rather reveal and reconcile their worldviews – including the myths, unconscious biases, uncertainties, and false beliefs they may harbour – with facts and empirical proof. These discussions must continually evolve and demand reflexivity from the union and its members to appraise how their confidence might affect their attitudes to climate change or behave them to act, think, and influence others in specific ways.

It is defeatist and misguided to presume that knowledge of climate science, justice, and policy is relevant only to environmental groups or the climate movement, that educators and their unions need not preoccupy themselves with issues that ostensibly concern their profession least. Indeed, the next decades will only prove how far-reaching and holistic humanity's efforts should be in addressing the worst consequences of climate change, ideally on the same scale that this global crisis will inevitably impact all workers' sectors, including educators.

Taken to its logical conclusion, the conviction that educators have just as much to lose in the face of this existential threat should conversely prompt them to exhaust all tools at their disposal – their experiences, their knowledge and expertise, and their agency as professionals and unionists, essential workers, and providers of a public good – to be part of the solution.

4.2 Union Perspectives on Climate Justice and Policy

The struggle for social justice falls within the ambit of trade unions. However, climate justice remains a relatively unexplored area of work for the Asia-Pacific education unions, not so much out of indifference to climate change issues as owing largely to various practical challenges they foresee in organising and mobilising for climate action. Still, the union leaders and representatives we interviewed were unanimous in calling out climate–education policy gaps in their contexts and expressed interest in furthering conversations within their unions that meaningfully recognise educators’ collective voice as adjacent, if not integral, to the broader climate justice movement.

4.2.1 RECOMMENDATIONS TO EIAP

The following recommendations, based on the findings of this regional consultation study, should guide EIAP in designing and implementing its climate justice programme:

Build a support network and a community of educators committed to climate justice. The EIAP climate justice programme should create a collaborative platform as a counterpoint to shrinking and closing civic spaces where education unions could otherwise engage in climate action.

Generally, at the country level, an enabling environment for climate justice work is still lacking or absent due to conservative governance, weak implementation of climate policies, and leaders and policymakers who only pay lip service to the growing public demand for climate justice. Education unions in critically sensitive areas and crisis-ridden parts of the Asia-Pacific may likewise struggle to prioritise tackling the climate emergency among their many pressing concerns. Through the EIAP climate justice programme, unions in countries with more privileges and relative freedoms might do well to extend support to these unions facing various organisational and capacity gaps.

Help EIAP member organisations integrate climate justice into their current areas of work. Most of our informants reported that their members’ workloads are already overwhelming, and only a few could afford to devote energy to work on an issue that has hardly historically figured in the classic union agenda.

For EIAP, the challenge is to remind their affiliates that the mandate is not necessarily to mount a dedicated climate justice campaign within their unions but to incorporate climate justice within their existing campaigns. Moreover, climate justice can become a tool analysis that unions use to discuss issues concerning their sector. The Regional Office can do so by guiding their affiliates – through workshops, focus group discussions, capacity-building projects, and continuous consultations, bilateral or otherwise – in identifying and working on these areas for integration.

Provide material and technical assistance to EIAP affiliates in mainstreaming climate justice in climate change education and promoting a just transition in the sector. The awareness-raising component of EIAP’s climate justice programme should begin with an emphasis on the threats that climate change already poses to educators and their communities’ daily lives and proceed with a sustained call for climate action. The climate change impacts our respondents pointed out as most concerning in their contexts can be used to introduce or (re)frame climate justice issues in a way that resonates most with different EIAP affiliates.

Given their members’ capacity needs, EIAP must take the lead in developing and promoting accessible resources, such as webinars, toolkits, and training modules, to help educators incorporate climate science and climate justice concepts into their pedagogies and advocacies. Additionally, the Regional Office could organise workshops, seminars, and training sessions to equip education unionists with the necessary skills to engage in climate policymaking and develop leadership in this area.

Make the connection between climate change and equity in education more apparent. We heard from several union leaders and representatives about the varying scopes and scales of environmental or climate change impacts on educators, their students, and their unions, throwing into sharper relief the differential vulnerability evident even within the sector. The EIAP climate justice programme must underscore educators’ role in spotlighting the struggle for survival of those who have disproportionately borne the brunt of these impacts, despite having been the least responsible for them – women and children, Indigenous peoples, communities in low-lying areas or on sinking islands, among others.

These vulnerable groups have the highest stakes in a low-carbon future but are generally positioned to manage the crisis with much fewer, or less access to, resources for adaptation. Their experiences and perspectives must be taught, documented, and harnessed for the lessons learnt and best practices they have developed in rebuilding from disasters and adapting to heavily altered ecosystems. In partnership with its affiliates and community-based organisations, EIAP could build such an evidence base through participatory action research to lend greater weight to climate justice campaigns.

Explore developing country-level campaigns as an extension of the EIAP's climate justice programme. Since many unionists view climate justice issues primarily from a context-specific enviro-political perspective, it would be worthwhile to strategise how EIAP might later reinforce its region-wide climate justice programme with several targeted campaigns at the national level. Through localised campaigns, EIAP could better support grassroots or enterprise-level organising as a cornerstone of unions' climate justice work.

Provide opportunities for peer-to-peer support to relieve climate distress and cultivate a praxis of care among educators and education unionists. Besides climate anxiety,¹ depression and burnout have been documented to afflict climate justice activists.² The intentionality to embed care work³ in EIAP's climate justice programme should manifest in dedicated spaces for educators to take stock of and

- 1 Schwartz, S. E., Benoit, L., Clayton, S., Parnes, M. F., Swenson, L., & Lowe, S. R. (2022). Climate change anxiety and mental health: Environmental activism as buffer. *Current Psychology*, 1-14.
- 2 Latkin, C., Dayton, L., Scherkoske, M., Countess, K., & Thrul, J. (2022). What predicts climate change activism?: An examination of how depressive symptoms, climate change distress, and social norms are associated with climate change activism. *The Journal of Climate Change and Health*, 8, 100146.
- 3 See Chatzidakis, A., Hakim, J., Litter, J., & Rottenberg, C. (2020). *The care manifesto: The politics of interdependence*. Verso Books. The authors argue for and celebrate a radical reimagining of care as a collective responsibility and an egalitarian reorientation toward justice, aid, and solidarity in a sustainable world (p. 5—6):

Above all, to put care centre stage means recognising and embracing our *interdependencies*. In this manifesto we therefore use the term 'care' capaciously But it means as well the care of activists in constructing libraries of things, co-operative alternatives and solidarity economies, and the political policies that keep housing costs down, slash fossil fuel use and expand green spaces. **Care is our individual and common ability to provide the political, social, material, and emotional conditions that allow the vast majority of people and living creatures on this planet to thrive – along with the planet itself.** (Emphasis added.)

acknowledge the emotional labour and mental toll that climate justice work entails. EIAP must strive to discuss with its affiliates how best to collectivise despair and hope,⁴ allow their members to process these bifurcated feelings with their colleagues, and guard against guilt and tendencies toward learned helplessness.

4.2.2 RECOMMENDATIONS TO EIAP AFFILIATES

Towards developing a more committed climate justice advocacy in education in the Asia-Pacific, we offer the following recommendations to education unions in the region:

Heighten awareness of climate change and climate justice in the education sector by assigning it as fundamental to the professional development of educators. Just as teachers and education support personnel work to equip younger generations with the knowledge and skills relevant to a low-carbon society, so should they be keeping abreast of developments in and discussions on climate science, justice, and policy.

In this regard, seeking ways forward foremost requires creating a community of interest by tapping into the drive of some union members to engage in local environmental initiatives that they may channel only in their personal capacity. This community must also build trust in climate science, reckon with denialism, and unlearn biases that downplay the magnitude of the crisis or calcify one's complacency about the future. There is also a need to foster a multi-disciplinary and collaborative culture among educators, given the predilection toward strict disciplinarity in academia – the tendency, for example, to think of climate change as the domain solely of STEM educators. In this regard, many unions might already be well-positioned to begin this conversation.

Misperceptions, misinformation, and educators' confidence in these uninformed opinions may be corrected through targeted interventions. We encourage education unions to continue advocating for teachers' continuing professional development and training on basic climate science, backed by up-to-date, evidence-based research and teaching–learning resources. At the same time, educators must complement such knowledge of climate science with a strong climate justice

4 Nairn, K. (2019). Learning from young people engaged in climate activism: The potential of collectivizing despair and hope. *Young*, 27(5), 435-450.

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focus and meaningful but often difficult discussions on climate policies relevant to their contexts, especially within their unions.

Find where educators’ needs and struggles intersect with climate policy. Some education unions in the region have already identified which facets of their advocacies (e.g., labour rights, education for sustainable development, climate-resilient schools) complement a climate justice-centred perspective. Place-based concerns with issues more directly related to climate policy, such as energy, as in the case of Australia, demonstrate why educators and their unions must be equally invested in climate justice. For other unions, however, finding these connections, particularly in policy and advocacy spaces, is not a priority or remains encapsulated only within their campaign for climate change education.

Climate change education, in its relative emphasis on curricular integration and critical pedagogy, can still be reinforced by a climate justice perspective integrated into existing union campaigns. These campaigns could more explicitly interrogate the political economy of education amid climate change, including how education systems are run, how this planetary crisis is itself a threat to decent work, equity, and inclusion, and how climate change further justifies the need to protect educators’ terms, working conditions, rights, and well-being. In recognising climate justice as already intrinsic to their labour agenda, Asia-Pacific education unions need not establish a dedicated climate justice programme of their own.

Acquaint education unionists with just transition principles and their relevance to the decent work agenda and educators’ professional leadership. Several union leaders we interviewed expressed anxieties about the impacts of climate change on educators’ job security, safety and well-being and their fight for institutional support, social protection, and rights safeguards. Within a just transition framework, education unions can articulate the interconnectedness of these struggles. Just transition priorities sharpen educators’ analysis of why governments must invest in strengthening education systems’ capacity for adaptation in all relevant aspects.

In such negotiations and policy dialogues, just transition provides a springboard for education unions to assert educators’ expertise and standards of practice in deciding how to retool education systems towards preparing learners for and upholding decent work in a

Within a just transition framework, education unions can articulate the interconnectedness of these struggles. Just transition priorities sharpen educators' analysis of why governments must invest in strengthening education systems' capacity for adaptation in all relevant aspects.

low-carbon economy. Just transition can be a potent leverage point for education unions to enter into climate policymaking spaces. Once they have shaped their policy positions in the just transition discourse, they can communicate to decision-makers their stakes and the relevance of their involvement in these dialogues to clinch concessions for the sector. In the case of the AEU, for example, the union leaders assert that the government should consult educators on national policies for reskilling workers from fossil fuel industries.

Engage with the broader climate movement, academia, civil society organisations, and other trade unions to build adaptive capacity, knowledge, and evidence base regarding the climate–education nexus. The spirit of cooperation and solidarity that education unions have long forged with allies should similarly translate into all efforts to broaden the climate justice front in education. Civil society organisations – environmental defenders, climate justice activists, and trade unionists from other sectors – are potential allies in securing multi-stakeholder support, bridging informational and capacity gaps, and building an evidence base for climate justice advocacy to steadily gain ground in education.

Lastly, educators and their unions must do more than find these connections between their work and the pursuit of climate justice. The intersections of these struggles should provide fresh impetus for tireless organising and radical reimagining in the face of a global emergency that demands nothing less than collective action.

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This study seeks to identify the advocacy and capacity-building needs of EIAP affiliates where the advancement of climate justice is concerned and where climate change education and just transition matters are spotlighted. Our objective is two-fold: (1) to assess the baseline knowledge of EIAP members regarding climate science, justice and policy; and (2) to gather their insights on and recommendations for developing, facilitating, and implementing climate justice policies and measures in schools, trade unions, and beyond. The findings of this study also serve a programmatic function as they will help pinpoint knowledge gaps and advocacy areas to be targeted and addressed by EIAP's climate justice programme.



Forging the education–climate justice connection

A regional consultation and baseline assessment of Asia-Pacific educators' knowledge gaps and advocacy needs for advancing climate justice in education

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