

Adaptable by Design

*Comparative Insights into Karen
Teacher Professional Development*



“

“After we left our stronghold, our approach to centralized governance has changed. Old ways of centrally mobilizing people, materials, and communication have dissolved... Decentralization is necessary because of the changing context... If we make a decision at the central level and a district says ‘no’, then we need to change. We need the township and district to handle their contexts and issues. We have agreed on a framework for engagement and have enabled them to make decisions. They are responsible for implementing the policies at their level”.

- Department Head, KECD

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Acknowledgements

It is my sincere hope that this research supports greater autonomy, and more localized educational governance and advocacy for Karen education and teacher professional development systems inclusive of both sides of the border. This research found the TPD systems of the Karen Education and Cultural Department (KECD), the Karen Refugee Committee – Education Entity (KRCEE), and the Karen Teachers' Working Group (KTWG) to be intentionally designed for disruption and therefore continually able to withstand the atrocities of a fragmented nation. While I wish this resilience was not necessary, I hope this work leads to greater appreciation and recognition of the efforts of Karen teachers.

တၢ်အံၤမ့ၢ်ယတၢ်ဆၢမုၢ်လၢနီၢ်နီၢ်လၢ တၢ်ဃုသ့ၣ်ညါမၤလိအံၤ ကဆိၣ်ထွဲမၤစၢၤအါထီၣ် နီၢ်ကစၢ်တၢ်ပၤလီၤသးဂ့ၤ န့ၢ်အလီၢ် ဒီးတၢ်ကူၣ်ဘၣ်ကူၣ်သ့အတၢ်ပၤတၢ်ဆၢ တၢ်စိတၢ်ကမီၤ ကအိၣ်အါထီၣ်လၢ လီၢ်ကဝီၤပုၤဘၣ်မူဘၣ်ဒါ အစုပူၤ ဒီးကကတိၤန့ၢ်ခဲးတၢ်လၢ ကညီတၢ်ကူၣ်ဘၣ်ကူၣ်သ့ ဒီးကိသရၣ်တၢ်လဲၤထီၣ်လဲၤထီၣ် အကျိၤအကျဲတ ဖၣ်အဂီၢ် လၢအပၣ်ဃုာ်ဒီး ပုၤလၢထံဆၢကီၢ်ဆၢ ခံခီယၢ်ပၤလၢာ်အဂီၢ်န့ၢ်လီၤ. တၢ်ဃုသ့ၣ်ညါမၤလိ အတၢ်ဂ့ၢ်ခိၣ် သ့ၣ်အံၤ ထံၣ်ဝဲဒၣ်လၢ ကညီကူၣ်သ့ဆဲးလၢဝဲၤကျိၤ (KECD), ကညီဘၣ်ကီဘၣ်ခဲကမံးတံာ် ကူၣ်သ့တၢ်မၤမုၢ် ကျၢၢ် (KRCEE), ဒီးကညီကိသရၣ်မၤသကိးတၢ်ကရူၢ် (KTWG) သ့ၣ်တဖၣ်အံၤ ဘၣ်တၢ်ပညိၣ်ဒုးအိၣ်ထီၣ်အံၤ လၢ ကသ့ခိၣ်ဆၢ တၢ်နိးတၢ်ဘျးတၢ် တၢ်တၢ်တဖၣ်အဃိ, အဝဲသ့ၣ်တဖၣ် သ့ခိၣ်ဆၢဒီးဝဲ ထံကီၢ်လီၤမုၢ်ပြီၤတ ဘ့ၣ် အတၢ်တတၢ်တနီၤတဖၣ်ဆူညါန့ၢ်လီၤ. ယဆၢလၢ တၢ်တကြၢၤလိာ်ဘၣ်လၢာ် တၢ်သးစွံကတုၤသနံ က့, ယမုၢ်လၢလၢ တၢ်ဃုသ့ၣ်ညါမၤလိတခါအံၤ ကဒုးအိၣ်ထီၣ် တၢ်ဟံလုၢ်ဟံပူၤ ဒီးတၢ်သ့ၣ်ညါဟံပနီၣ်အါန့ၢ်အ လီၢ် လၢကညီကိသရၣ်တဖၣ် အတၢ်ထဲးဂံၢ်ထဲးဘါအဂီၢ်န့ၢ်လီၤ

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List of Acronyms

AST	Advanced Skills Trainer
BEST	Basic Education Support towards Transition Project
CCS	Comparative Case Study
CCSDPT	Committee for Coordination of Services to Displaced Persons in Thailand
CDM	Civil Disobedience Movement
DEO	District Education Officer
DFAT	Australia's Department of Foreign Affairs and Trade
ERO	Ethnic Resistance Organisation
EiE	Education in Emergencies
EU	European Union
EORE	Explosive Ordinance Risk Education
FCDO	UK's Foreign, Commonwealth and Development Office
FDG	Focus Group Discussion
GEDSI	Gender, Equality, Disability, and Social Inclusion
(I)NGO	(International) Non-Governmental Organisation
INEE	Inter-agency Network for Education in Emergencies
KECD	Karen Education and Culture Department
KII	Key Informant Interview
KNU	Karen National Union
KRC	Karen Refugee Committee
KRCEE	Karen Refugee Committee - Education Entity
KTCSF	Karen Teacher Competency Standards Framework
KTTC	Karen Teacher Training College
KTWG	Karen Teachers' Working Group
MTB-MLE	Mother Tongue-Based - Multilingual Education
NCA	Nationwide Ceasefire Agreement
OCEE	Office of Camp Education Entity
PREPS	Preparing for Reintegration through Education and Participative Solutions Project
RTCSF	Refugee Teacher Competency Standards Framework
TCSF	Teacher Competency Standards Framework
TEO	Township Education Officer

Key Terms Used Within this Report

The Myanmar and Thai-Myanmar border contexts represent dynamic settings where terms and categorizations are often contested and debated, with multiple perspectives shaping interpretations. Key terms are listed below to add clarity and help focus the research by highlighting the main ideas that will be explored.

Teacher professional development (TPD) - Refers to the policies, procedures, and provisions designed to equip in-service teachers with the knowledge, attitudes, behaviors, and skills they require to perform their tasks effectively in the classroom, school, and wider community. This includes both formal and informal training for teachers who are already within the profession. It does not include pre-service training for teachers who are immediately entering the profession and have yet to begin teaching.

Times of conflict and crisis - Refers to periods of time when an education system is affected by armed conflict events and their aftermath and/or humanitarian, environmental, economic and public health events and their aftermath, which causes disruption such that education systems are not able to conduct activities as originally envisioned.

Parallel systems - Refers to both education and TPD systems that exist alongside the state-run systems in Myanmar and Thailand. These systems largely provide educational services to populations that might otherwise be overlooked or marginalized, namely migrant, refugee, and ethnic and indigenous peoples.

Myanmar - One year following the 1988 pro-democracy uprising, the former military junta changed the country's name from 'The Union of Burma' to 'The Union of Myanmar.' This paper uses the term 'Myanmar' in acknowledgement that most peoples of the country use this term. However, the deception of inclusiveness and the historical process of coercion by the former State Peace and Development Council military regime into usage of 'Myanmar' rather than 'Burma' without the consent of the people is recognized and not forgotten (Progressive Voice, 2024).

Myanmar government - Is used within this paper to refer to administration by the democratically elected, civilian governments serving from 31 January, 2011 to 31 January, 2021 under the 2008 Constitution of the Republic of the Union of Myanmar.

Attempted coup d'état - This paper terms the ongoing conflict as a 'coup attempt' to highlight the Myanmar military's failure to consolidate power through ongoing violent attacks. At the time of writing, various resistance forces, including the Karen National Union (KNU), have effectively prohibited the State Administration Council (SAC) from gaining control of geographies under ethnic administration (Special Advisory Council Myanmar, 2022).

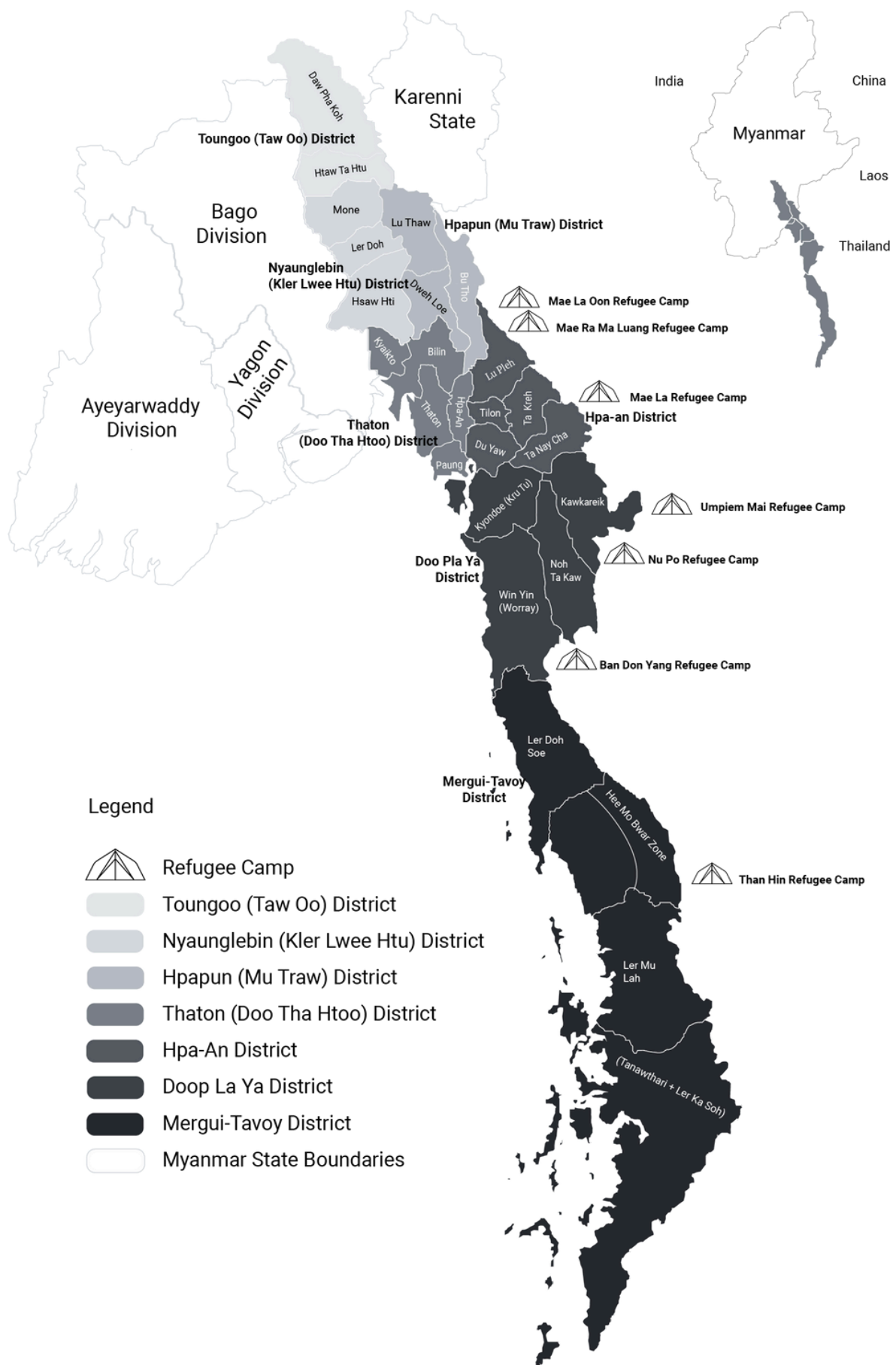
Ethnic Resistance Organization (ERO) - Are non-state armed actors affiliated to ethnic groups, also known as Ethnic Armed Organizations. They are typically directly connected to political movements and differ in terms of size, organization, military capacity, and territory (Baron-Mendoza, 2017).

Temporary shelter - This paper uses both 'temporary shelter' and 'refugee camp' to describe the places those forcibly displaced from Myanmar reside in Thailand. A result of Thailand's non-signatory status of the 1951 UN refugee convention is that the terms 'refugee' and 'refugee camp' cannot be used in official discourse. Instead, 'stateless migrant', 'displaced person' and 'temporary shelter' are the official nomenclature, which reflects the host country government's view that it is a transit country (i.e. only a temporary host for refugees), although the protracted nature of the context might suggest otherwise (Oh, 2010).

Karen State and Kawthoolei - This paper denotes the geographic sub-national administrative unit as 'Karen State' as opposed to the official name designated under the 2008 Constitution: 'Kayin State'. Kawthoolei is the territory demarcated and governed by the Karen National Union as belonging to the Karen people and is geographically larger than the demarcations of Kayin State as designated by the former government. It should be noted that the territory is widely contested and since the beginning of the Karen conflict in the late 1940s there has been a desire by Karen nationalists for an independent nation-state with the endonym Kawthoolei (cf. Garbagni & Walton, 2020). Karen State has seven administrative districts (also called brigades) as denoted by the Karen National Union: Thaton (Doo Tha Htoo) District, Toungoo (Taw Oo) District, Nyaunglebin (Kler Lwee Htu) District, Mergui-Tavoy District, Hpapun (Mu Traw) District, Doop La Ya District, and Hpa-An District.

Science teacher trainers using sticks and stones to represent covalent bonds and carbon nuclei during a practical training on organic chemistry





Karen National Union Administrative Districts and KRC Administered
Refugee Camps Along the Thai-Myanmar Border



The Karen Education and Cultural Department (KECD)

The Karen Teachers' Working Group (KTWG)

7 Districts
140,732 students
1,671 Schools
11,192 Teachers

The Karen Refugee Committee - Education Entity (KRCEE)

7 Refugee Camps
20,718 Students
46 Schools
845 Teachers

Research Locations:

Hpa-An District

11,130 Students
127 Schools
933 Teachers

Mae La Oon
Refugee Camp

Mae Ra Ma Luang
Refugee Camp

Mae La Refugee Camp

7,181 Students
18 Schools
327 Teachers

Mae Sot

Umpiem Mai
Refugee Camp



Children using colored paper to respond to their teachers' assessment questions





Executive Summary

A mosaic of state and non-state actors provide teacher professional development (TPD) to educators in Myanmar and on its borders. These parallel systems reflect both the diversity of and continued struggle for self-determination by education actors from a multiethnic 'nation' marked by pluralistic histories since independence from British colonialism in 1948 (South & Lall, 2016). Rinehart and Tyrosvoutis (2023) identified that non-state TPD providers navigated the COVID-19 pandemic by employing complexity-aware approaches enabling adaptation and responsiveness. This research report directly builds on the previous work by applying complexity theory to deeply explore the TPD systems of the Karen Education and Cultural Department (KECD), the Karen Refugee Committee – Education Entity (KRC-EE), and the Karen Teachers' Working Group (KTWG) to identify the methods employed to navigate two contemporary disruptions: the COVID-19 pandemic and protracted armed conflict associated with the attempted coup d'état.

This qualitative study employs a comparative case study approach (Vavrus & Bartlett, 2022) across two contexts: Mae La Refugee Camp in Thailand and Hpa-An District in Karen State, Myanmar. Data was collected between May and July 2023 and included 60 participants representing six stakeholder groups: 18 teachers working directly in classrooms, 16 teacher trainers, 6 school leaders, 6 local education authorities, 8 organizational senior leaders, and 6 donors.

This study seeks to understand teacher profession development by employing complexity theory as a theoretical lens as it has been shown to identify elements of adaptability in dynamic settings both within teacher education (Cochran-Smith et al, 2014; Ell et al., 2019) and development and humanitarian efforts (Mitchell et al., 2022; Ramalingam & Jones, 2008). This study found that the continuity of Karen TPD was enabled through leveraging key elements of complex adaptive systems, namely: adaptation, feedback loops, emergence, and decentralization. Taken together, these bottom-up features culminated in dynamic programming that has been able to withstand contemporary challenges on both sides of the Thai-Myanmar border.

Elements of Karen TPD identified as being 'Designed for Disruption'

Element	Description	Outcomes
Adaptation 	Tailoring TPD modalities, frequencies, locations, dates, topics, and participant numbers based on the context and emergent needs.	TPD is safely provided in light of ongoing security concerns
Feedback Loops 	The use of feedback/reflection cycles and intentional collection of teacher voices from school to central level. This also includes the triangulation of formal and informal data from a variety of local sources to make informed decisions during crises.	TPD is based on teachers' needs and relevant to the context Teachers voices are heard and respected
Emergence 	An organizational culture of service/sacrifice and compassion towards the roles of teachers and students in challenging circumstances.	Teachers are replenished year-to-year despite low remuneration and opportunities for professional mobility
Decentralization 	Distributed leadership whereby responsibilities are delegated to ground-level actors. This promotes local governance and the ability to determine educational policies responsive to the needs of communities. This also includes complexity-aware project management and funding strategies, namely the ability to exhibit flexibility through the reallocation of funds and the revision of project indicators based on emergent needs.	TPD is tailored to specific geographic locations Local authorities are empowered to make decisions regarding TPD Funds are reallocated to ensure TPD is relevant and appropriate to the context

While highly structured and formalized approaches offer many benefits to TPD systems in times of stability, this study found that during times of disruption, these approaches were often perceived by senior leaders to undermine the systems' responsive capabilities. Rather than adding value, comprehensive frameworks and highly structured routines became burdensome to program implementation. For this reason, systems on both sides of the border made difficult decisions to suspend highly structured and formalized TPD programs, including the rollout of the refugee teacher competency framework across temporary shelters and the use of mobile teacher trainers to collect comprehensive classroom observation data in Karen State. The ability of these organizations to adopt new approaches, thereby intentionally revising their policies, programming, and plans in a relatively short period of time represents an under-recognized strength in emergency contexts.

Instead, meeting emergent needs was made the priority. While this enabled contextually appropriate and responsive support for teachers, without system-wide standardization of TPD, advocacy for recognition became more difficult as consistent educational quality became harder to achieve. In both cases, difficult decisions were made to reduce the frequency and comprehensiveness of teacher observations during the crises. One outcome of these decisions has been that Karen TPD continues to be underrecognized by academic institutions, UN organizations or international accreditation boards. This challenge will remain difficult as most certifications require uniform programming with adherence to specific standards and program durations.

The Inter-agency Network for Education in Emergencies (INEE) establishes teacher training as a core educational strategy during emergency response. According to INEE (2024) guidelines, TPD in emergencies should meet seven key criteria: be needs-based, appropriate to the context, include risk prevention and mitigation topics, be provided by qualified trainers, be accredited by educational authorities, include peer collaboration in the immediate learning environment, and include digital resources, if possible. Interviewed participants in this comparative case study exemplified and echoed many of these recommended components of TPD in emergencies and recognized the areas where their systems could improve. By synthesizing and extrapolating the strengths of the models across the two Karen cases, it is recommended that TPD in emergency be: needs-based, place-based, provided by qualified trainers, continuous and individualized, and aligned to professional standards.








Over 45 schools throughout Karen State have been the target of attack (KECD, 2024, Sept)





*A temporary classroom
for children displaced
by conflict*

Effective Components of Karen TPD

Place-based		Karen teachers receive professional development in the context where they work: their classrooms.
Continuous and individualized		Routine classroom observations allow each teacher to receive some individualized support and feedback.
Provided by qualified trainers		KECD, KTWG, and KRCEE employ only qualified teacher trainers who have both classroom experience and specific qualifications.
Needs-based		The content of Karen TPD materials reflect the daily realities of teachers and students. New topics have been incorporated into TPD such as COVID-19 health and safety, socio-emotional learning, disaster risk reduction, emergency response and preparedness, and Explosive Ordinance Risk Education (EORE) training.
Aligned to professional standards		The Karen teacher competency standards include: subject matter knowledge, pedagogical content knowledge, assessment, communication, classroom management, and learning and development, MTB-MLE, the incorporation of local culture and heritage into teaching, and creating teaching and learning materials in low resource settings.

For TPD to be strengthened, the fundamental needs of education professionals must be met. In line with the perspectives and recommendations shared by interviewed participants, funding and external support for teacher education should continue to be diversified, promote flexibility, adopt a partnership approach, be long-term and system-wide, and focus allocation of funding to the educational professionals making education possible.

Recommended Funding and External Support for TPD

Fund education personnel



It is critical that funding focus on the personnel that make education and TPD possible: teachers, trainers, school leaders, and local education authorities.

Long-term scope



Longer funding cycles ranging from three to five years enable systems to plan for the future and think strategically about the direction and goals of TPD.

Partnership approach



Mutually empowering relationships, reciprocal trust, an awareness of power imbalances, and a focus on shared growth and organizational development are the foundation of strong partnerships in emergency settings.

Flexibility



Education in emergency necessitates prompt decision-making and the ability to rapidly reallocate funding when crises emerge.

Diversity of funding



Coordination across a portfolio of donors supports the delivery of services quickly to teachers during crises. A variety of funding streams allows leaders to allocate resources effectively and respond to emergent needs.

Without complexity-aware support, future humanitarian interventions risk undermining—or at best ignoring—the very practices that have enabled parallel TPD systems in Myanmar to navigate disruption. In contexts experiencing conflict and protracted crisis, support for teachers at both the school and system level should be offered in a variety of options with flexible criteria and benchmarks. This study found that during emergencies highly structured TPD interventions are likely to go uncompleted or implemented inconsistently. On the other hand, adaptable, contextually relevant approaches were found to be more likely to meet teachers' needs. Understanding that these systems have continued to function because they are complex adaptive provides valuable insights for practitioners supporting teacher education in conflict and protracted crises. Karen TPD systems continue to function because they are highly and quickly adaptive, with regular formal and informal feedback loops, teachers who are willing to make sacrifices, and decision-making occurring at the local level.

Key Recommendations

To Support Karen TPD Systems Designed for Disruption

A. Support a reunified system of Karen TPD

In line with the recommendations of Holland et al. (2022), donor governments should not distinguish between internally displaced persons, refugees, and indigenous education providers, but support all of these groups regardless of their geographic location. There is an opportunity to undo the separation of the Karen education system through improved cross-border donor coordination. In recent years, Karen TPD has adapted to meet the specific needs of the contexts on each side of the border with numerous synergies highlighted throughout this report. Future advocacy and funding should seek to support one system that spans the geographic border.

B. Ensure education professionals are adequately compensated

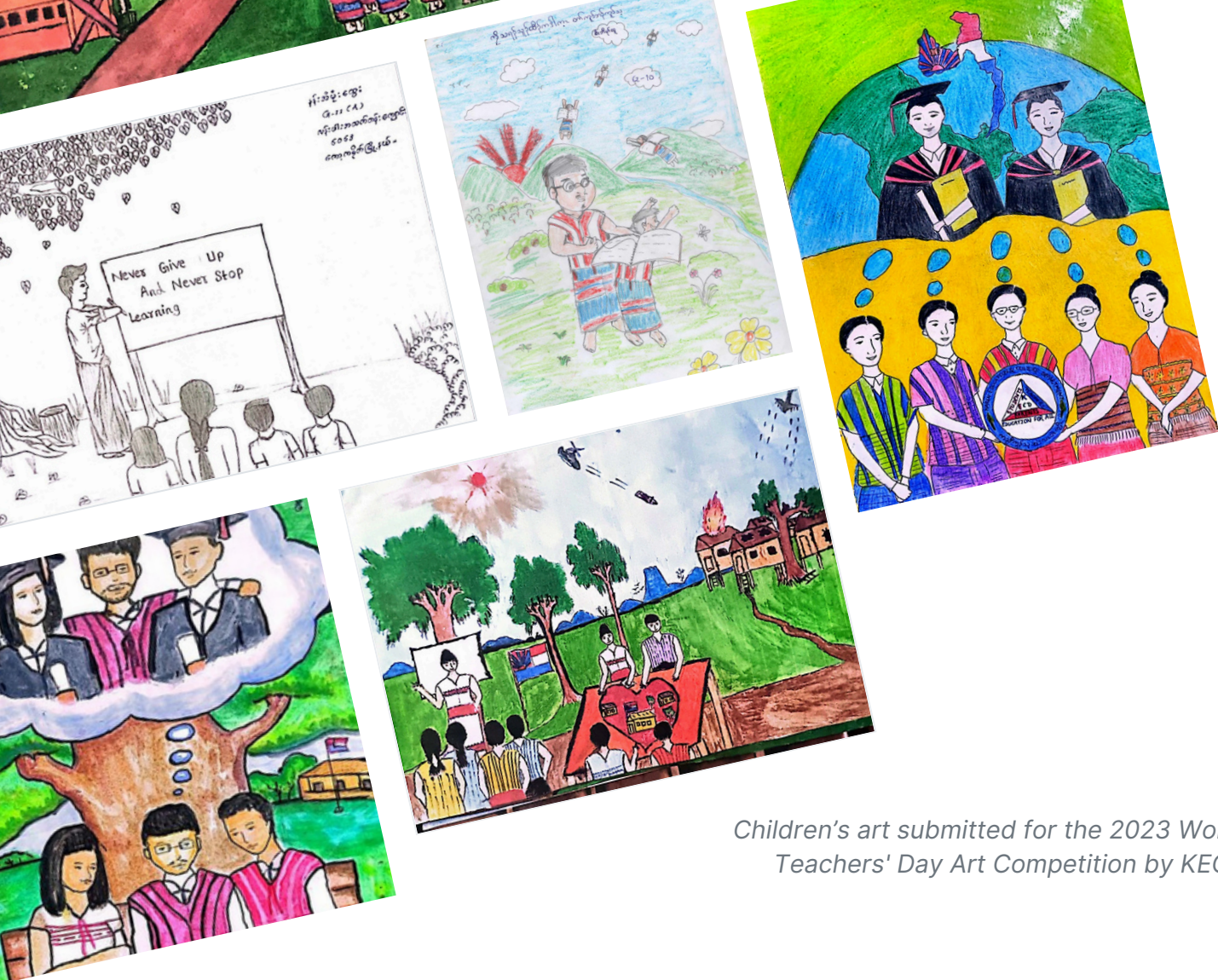
The underpinning challenge across both contexts is the high teacher attrition rate. To continue to professionalize teaching and maintain a resilient education system, it will be crucial to provide teachers with dignified extrinsic motivation.

In 2025 it is forecast that there will be 240 teachers in the refugee camps that will require financial support. Covering this shortfall will cost approximately \$100,000 USD.

KECD and KTWG attempt to ensure each teacher in Karen State is paid \$350 USD/year, however, the reality is that they are unable to pay all teachers this amount. The number of teachers in the Karen education system continues to grow to meet increasing demands. In Karen State, the estimated total needed to ensure all teachers receive a basic stipend is \$4.3M USD. In the 2024-2025 academic year there was a 25% shortfall for teacher stipends. This shortfall is expected to continue in 2025-2026 unless action is taken.



Teachers in Mae La using a total physical response (TPR) activity during a subject training workshop



Children's art submitted for the 2023 World Teachers' Day Art Competition by KECD

C. Support further decentralized decision-making

The findings of this study highlight the importance of people on the ground during disruption as both the COVID-19 pandemic and conflict in Karen State have worked to restrict access. However, decentralization comes at a cost and is financially less efficient than centralized educational interventions. Supporting decentralization could involve specific funding allocation to ensure local educational authorities are sufficiently compensated and supported to take on greater roles related to TPD.

At the refugee camp level, the Office of Camp Education Entity (OCEE) requires IT resources to more effectively collect and analyze educational data. Needed laptops, internet access, and IT infrastructure would cost approximately \$4,000 USD per camp for a total of \$28,000 USD for all 7 Karen camps.

Similarly in Karen State, Township Education Officers require additional IT resources to enhance how educational data is coordinated and compiled. Laptops, internet access, and IT infrastructure would cost approximately \$7,500 USD for each of the 26 townships for a total of \$195,000 USD to cover all 7 districts.

D. Strengthen school-based TPD

A peer learning model could potentially address two challenges identified in this study at the same time: teachers feeling isolated, and engaging experienced teachers. If qualified, committed, and experienced teachers could be identified, peer mentorship would support further decentralization of TPD to the school level and provide needed support for onboarding new teachers, especially those starting mid-year. This would also prepare schools for future disruption by supplementing potentially reduced TPD. Developing a pre-service training summary manual and building the capacity of experienced teachers can enhance TPD at the school level. A funding model that provides a small financial incentive for experienced teachers would promote the retention of the most valuable resource of Karen schools: the teachers. Before this can happen, existing teacher trainers require support to ensure they are equipped to support the growing needs of teachers.

At the refugee camp level, there was a strong desire to reintroduce Advanced Skills Trainers (ASTs): school-based subject specialists that have additional roles and responsibilities for training. In the past there were approximately 2 ASTs at each of KRCEE's 45 schools and they received a slightly increased salary. Reintroducing ASTs would cost approximately \$13,000 USD for stipend top-ups and \$25,000 USD for specific training per year.

In Karen State, there are 56 district-level subject trainers and 8 central-level subject trainers which require intensive training to upgrade their content knowledge. It is recommended to bring all trainers to a central location for a 1-month intensive training. This would cost approximately \$40,000 USD.

Once the subject trainers complete the intensive training, the next step would be delivering the training to teachers in KECD's 50 high schools. The estimated cost for trainers to travel and deliver the training at high schools is \$40,000 USD/ year.

Similarly, mobile teacher trainers expressed desire to better meet the needs of teachers through advanced coaching and mentorship. Equipping 70 mobile teacher trainers with these skills through dedicated training, and supporting them to deliver it to teachers would require an estimated \$30,000 USD. The annual cost of each mobile teacher trainer is approximately \$6,000 USD which includes salary, travel expenses, printing, and personal materials. Additional mobile trainers are needed now more than ever to reach teachers in remote regions of Karen State.

E. Enable greater flexibility to respond to emergent needs

With many uncertainties and new risks, education in emergencies requires flexible responses and quick decision-making. To improve TPD in refugee camps, it is essential to secure another committed international donor or increase multilateral engagement with Thai government departments for financial support. This recommendation is not only because refugee TPD and stipends are critically underfunded but also because having multiple funding sources reduces monopolizing effects and increases local negotiating power. Expanded and robust networks are needed to meet the diverse needs of refugee educators and the systems that support them.

F. Review TPD curricula in light of contemporary challenges

The contemporary crises introduced many new challenges which have fundamentally changed classroom dynamics in both contexts. Now, classes often contain more learners with a greater diversity of language proficiencies in Karen languages and Burmese. Numerous interviewed teachers shared how these challenges have caused them to feel anxious, limited their creative potential, prevented them from providing individualized support to students, and left them feeling overwhelmed. It is recommended to review the TPD curricula and potentially include topics such as:

- Strategies for teaching large classes
- Approaches to support students unfamiliar in the language of instruction
- Effective multilingual pedagogical approaches
- Low resource teaching strategies
- Supporting students' socio-emotional needs

A new initiative which seeks to address this and the concern for teacher recognition is the development of three Co-designed TPD courses with the support of University College London and The Inclusive Education Foundation. The first course, Transforming Education in Challenging Environments: Teaching in contexts of mass displacement, is offered in English, S'Gaw Karen, and Burmese, and will be offered as in-person workshops by trainers from KRCEE, KECD, and KTWG. Teachers will receive a certificate from UCL for each course they complete and those who complete the course in English will have the opportunity to continue to University of London's Post Graduate Certificate of Education. Establishing this pathway for teacher recognition requires approximately \$250,000 USD.



A crowded high school math class in Mae La refugee camp. The teacher and blackboard are on a platform so all the students can see

I. Introduction

Settings of protracted crisis and conflict continue to expand. Fylkesnes et al. (2019) estimated that 20% of all children were learning in conflict zones. Since that study numerous major conflicts have emerged in countries including but not limited to Sudan, Mexico, Haiti, Ukraine, Palestine, and the focus of this study: Myanmar. This unfortunate trend will continue to impact how teachers are recruited, trained, and supported, and will therefore have significant implications for the fields of teacher professional development (TPD) and education in emergencies (EiE) (Lingard et al., 2021). As protracted emergencies expand, teachers and the systems that support them will require an expanded toolbox of integrated skills, knowledge, and responses to enable them to navigate disruption (UNESCO, 2021). The Inter-agency Network for Education in Emergencies (INEE) situates teacher training as a core educational strategy during emergency response, and per their guidelines, TPD in emergency should be: needs based, appropriate to the context, include risk prevention and mitigation topics, be provided by qualified trainers, be accredited by educational authorities, include peer collaboration in the immediate learning environment, and include digital resources, if possible (INEE, 2024).

As a result of prolonged armed conflict, recurrent political crisis, widespread structural disruption, and multidimensional oppression (Baron-Mendoza, 2017), professional development for teachers in Myanmar and its borderlands exists within both state and parallel systems, including ethnic and indigenous, monastic, and refugee providers (South & Lall, 2016). Non-state, parallel, ethnic and indigenous teacher education providers offer mother tongue and multilingual support to teachers via curricula and programs tailored to the distinct cultural backgrounds and realities of ethnic and indigenous communities. Taken together, these systems, each with a distinct scope and scale, have been collectively instrumental in supporting Myanmar's commitment to the Education 2030 Incheon Declaration. While many are connected to Ethnic Armed Organizations (EAOs), of which only a handful are signatories to the 2015 National Ceasefire Agreement (NCA), non-state TPD systems play a vital role providing essential educational services to many children in the hardest to reach places (Jolliffe & Speers Mears, 2016). Over the past 60 years, these parallel systems have navigated manifold challenges, including armed conflict, ethno-religious persecution, economic instability, political unrest, the COVID-19 pandemic, minimal access to resources and infrastructure, and multiple wide-reaching natural disasters.

Over the last decade, TPD has become a significant priority for non-state actors in Myanmar to ensure that teachers feel supported to continue providing quality education to remote and low-to-no-resource schools. Non-state actors also play a growing role in fulfilling accumulating requests for education from community stakeholders, including those recently displaced by conflict. It is clear these systems require support, but identifying effective modalities to do so has proved elusive against the backdrop of protracted crises and prolonged educational disruption. Attempts to identify actionable steps to improve TPD have been fraught with challenge, as there has been an increasing awareness that TPD is much more complex than traditionally typified (Cochran-Smith et al., 2014).

This study directly builds on the work of Tyrosvoutis and Rinehart (2023) which examined how parallel TPD providers navigated the COVID-19 pandemic. When compared to the state TPD system, many parallel systems utilize a decentralized structure which enables distributed decision-making at the local level. Rinehart and Tyrosvoutis (2023) described parallel TPD systems as being 'designed for disruption,' meaning they have developed low resource, fit-for-purpose structures and strategies allowing them to continue operations despite manifold challenges. This design promotes adaptability, flexibility, and localization when needed most: during emergency.

II. Study Outline

This study employs Vavrus and Bartlett's (2022) comparative case study methodological approach to offer a robust platform for cross-examining TPD in Hpa-An District, Karen State, Myanmar, and Mae La Refugee Camp, Thailand. Comparative case studies aim to triangulate knowledge claims across actors from different social positions and contexts. This study will examine the following three levels within each case:

- **Micro level:** teachers, teacher trainers, and school leaders
- **Meso level:** local education authorities and senior organizational leaders
- **Macro level:** national and international donors

The purpose of this study is to provide detailed and nuanced descriptions, analyses, and interpretations of the features of Karen TPD that interviewed stakeholders perceive as enabling the continuity of programming in their dynamic and turbulent contexts. Specifically, this study seeks to answer the following key question:

How do different organizational features and leadership approaches shape the continuity and effectiveness of Karen TPD in Hpa-An District, Karen State, Myanmar and Mae La Refugee Camp, Tak Province, Thailand?

There are also three specific lines of inquiry that this study seeks to explore - one primarily for each level:

Micro Level: What different approaches to TPD have been taken with Karen teachers in the temporary shelters and in Karen State?

Meso Level: What are the key components of TPD during emergencies? What gets lost and what is gained through adaptation?


Macro Level: What types of funding and external support seem to enable or hinder Karen TPD in the temporary shelters and in Karen State?

III. Background

This comparative study explores TPD in two Karen cases: Hpa-An District, Karen State, Myanmar and Mae La Refugee Camp, Thailand. As seen in **Table 1** below, while in close geographic proximity to Hpa-An District, TPD in Mae La Refugee Camp represents an entirely different case with numerous unique contextual factors impacting the approaches able to be employed.

Table 1. Comparison of Contexts and Corresponding TPD Approaches

	Hpa-An District, Karen State, Myanmar	Mae La Refugee Camp, Thailand
Shared Challenges	Lack of teaching and learning materials Overcrowded classrooms Many new students not fluent in S'Gaw Karen – the language of instruction Insufficient or damaged textbooks Multi-age/ multi-grade classes Substantial noise from adjacent classes Student desks and benches fixed to the floors in most schools High teacher turnover rate, many new teachers each year Teachers lack upper grade subject knowledge	
Average Monthly Salary of Teachers	500 THB/month (\$15 USD)	1st year = 1,030 THB/month (\$30 USD) 1 year+ = 1,060 THB/month (\$31 USD)
Pre-Service Training	3 teachers' colleges provide intensive training to a small proportion of teachers	10-day pre-service training for most new teachers
TPD Approaches	<ul style="list-style-type: none"> • All teachers observed 1-2 times per year • Summer vacation training lasting 3 days – 2 weeks • Annual subject training by district trainers 	<ul style="list-style-type: none"> • 2-week in-service subject training • Friday afternoon workshops • New teachers observed every month • Experienced teachers observed 2 times per year
Context-Specific Challenges	<ul style="list-style-type: none"> • Schools spread over large geographic area • Many schools quite remote and only accessible by foot or motorbike • Active conflict and attacks on Karen schools • Many students learning in internal displacement camps and temporary schools 	<ul style="list-style-type: none"> • Difficult to access the camp due to documentation requirements and authorization • Increase in student numbers resulting in children learning in any available spaces: churches, mosques, and community centers
Scope and Scale	<ul style="list-style-type: none"> • 127 Schools • 11,130 Students • 933 Teachers (KNU, 2023, March) 	<ul style="list-style-type: none"> • 18 Schools • 9,013 Students • 348 Teachers (KRCEE, 2024, August)



A temporary learning space set
up in response to nearby
airstrikes in Duplaya District,
October 2024 (source: CIDKP)

TPD in Hpa-An District, Karen State

"No matter how hard the military regime is trying to suppress us, we have survived these difficulties with the support and collaboration of the local community...The military regime has always targeted education by making education inaccessible so that they can freely manipulate the country...Therefore, we are in the process of developing an education system that is reflective of this nature based on federal democracy within the principles of the right to self-determination."

- Padoh Saw Law Eh Moo
Head of the Karen Education and Culture Department
KNU 100th Day New Era Press Conference (August 25, 2023)



As the educational department of the Karen National Union¹, the Karen Education and Culture Department provides educational governance and administration to community schools throughout Karen State (Gyi & Waters, 2023). In the 2024-2025 academic year KECD administered 1,671 schools with 11,192 teachers and 140,732 students (KECD, 2024 August). KECD was founded in 1947 to provide Karen children and youth access to education in their mother tongue language. KECD works in close collaboration with community teachers, leaders, parents, and educational authorities at the district, township, and school levels. Specifically, KECD employs district and township education officers (DEOs and TEOs) to provide administrative support to school communities. As integral members of school committees, local education authorities work to mobilize and manage contributions and funding for schools, mobilize community support mechanisms for vulnerable families, oversee school building and maintenance, report on and support the security of the students, teachers, and schools, link schools and communities to KECD's management and monitoring systems, and support school problem-solving and planning (Décobert, 2016).

KECD provides annual subject specific training to teachers via subject trainers based centrally and at the district level. As the educational arm of the KNU, KECD sets its own educational policies, regardless of Myanmar's national policies. During the highly centralized COVID-19 National Response and Recovery Plan for the Education Sector (May 2020 - October 2021), overseen by the (then) Ministry of Education, teacher education services in state-controlled areas were required to pause all services. As noted in Rinehart and Tyrosvoutis (2023), TPD supported by KECD and KTWG in Karen State resumed approximately six weeks after the pandemic started, using differentiated models.



The Karen Teacher's Working Group is a community-based organization established in 1997 which implements a range of programs to improve educational quality including, pre-service teacher training via three Karen Teacher Training Colleges (KTTCs), educational assistance via teaching and learning materials distribution, strengthening school management through regular capacity building for school leaders, and community mobilization and awareness raising. KTWG deploys a team of mobile teacher trainers (MTTs) to provide support to teachers throughout Karen State. The model of support provided by KTWG has been intentionally designed to promote Karen teachers as key supporters of Karen education (Johnson, 2016).

¹ "The Karen National Union (KNU) is a democratic political organisation, seeking equality and self-determination, human rights, democracy and equality in a Federal Union of Burma. The KNU is the leading political organisation representing the aspirations of the Karen people. The KNU was founded in 1947. The main aim of the KNU is a genuine Federal Union based on equality and self-determination". Source: <https://knuhq.org/en/>

The KTWG TPD model is comprehensive and ongoing, acknowledging that teacher quality requires more than just training. KTWG works to maintain intrinsic teacher motivation through non-monetary incentives and adapts to the changing conditions in Myanmar and Karen areas. KTWG's model aims to meet teachers' needs in harsh conditions throughout Karen areas, serving isolated and displaced populations lacking government services and facing extreme poverty and displacement (ibid.).

This research specifically examines the educational context of Hpa-An District, which at the time of fieldwork in July 2023 had 128 Karen schools, 933 teachers, and a total of 11,130 students (KNU, 2023, March). TPD in Hpa-An District spans geographic areas of mixed administration with many state and non-state armed actors. The electricity, internet, and phone coverage across the district vary dramatically. Additionally, the accessibility of many schools is limited with weather and conflict-related barriers keeping many schools isolated and only reachable by foot, motorbike, and boat. Bordering Thailand makes Hpa-An District one of the more accessible and therefore most easily supported geographies under KECD administration, in comparison with districts where a higher proportion of schools are geographically isolated. KECD and KTWG have the longest running and arguably the most established TPD programs among ethnic basic education providers in Myanmar, and these organizations are two of only a few that have retained near continuity in their TPD programming during recent conflict (TeacherFOCUS, 2024).

"In our area there are some schools which were government schools, but now after the coup they are community schools, and they ask us to give training to their teachers." '

- Teacher Trainer, Hpa-An District

During the past three years, areas controlled by the KNU have expanded despite frequent air strikes. Within Karen controlled areas, and Hpa-An District specifically, there are many different types of schools, which KHRG (2024) broadly categorizes as:

1. Schools administered fully by KECD
2. SAC-run schools
3. Religious schools
4. Self-funded/private schools

As a result of the ongoing attacks by the SAC, tens of thousands of civil servants who have protested or supported the Civil Disobedience Movement (CDM) have been forced to flee their homes and resettle in KNU controlled areas, especially Hpa-An District due to the relative safety it affords being adjacent to Thailand.

Ongoing attacks and security concerns in central Myanmar have driven the number of students enrolled in Karen schools from approximately 90,000 to well over 140,000 during the past two years (KECD, 2024, August). Specifically, Hpa-An District had an 18% increase in student enrolment compared to the previous year (KNU, 2023). Hundreds of additional teachers have been required – all of which need both stipends and professional development.

Some Myanmar state schools in KNU controlled areas were reported to change administrations and join KECD. As a result of the influx of former government teachers into Hpa-An District following the crack down on the civil disobedience movement, a new challenge facing Karen TPD is the incorporation of non-Karen speaking teachers and trainers into their systems.

"When we hear bombs from the aircraft, the students run away and we need to go find them. We need to stop the class. Parents sometimes worry for their children, so they don't send them to school. Some parents have pulled their children out of school, and they miss exams, and then they come back and need to study the same grade again."

– Teacher, Hpa-An District



Teachers in Karen State working in low-resource schools without access to electricity. Children learn with only chalkboards, paper, and pencils



TPD in Mae La Refugee Camp, Thailand

"I did it [teaching] based on the community needs. If we look at the salary, there is no benefit. I want to share what I have learned. In my life I didn't think I would come to a refugee camp. I arrived here in 2006 and started teaching. I think if I lived in Myanmar, I would have had no chance to attend school. In the camp I had that chance. I might have to take care of my younger brothers and sisters here, but I had the chance to go to School. Not many people have a desire to teach, but for me, I want to teach."

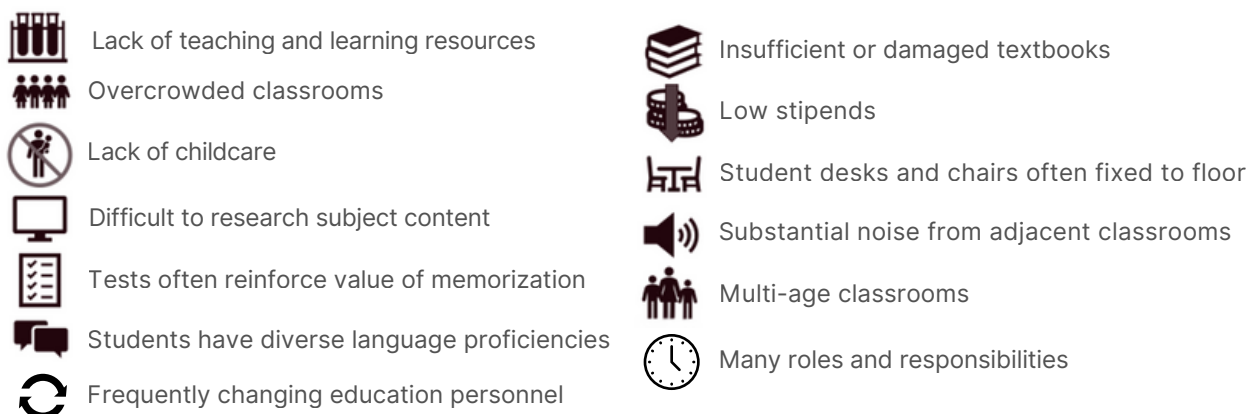
-Teacher, Mae La Refugee Camp

*A crowded high school classroom in Mae La
with a teacher:student ratio of 1:50+*



In one of the most protracted humanitarian situations in the world, beginning in 1984, refugees have found themselves living in one of the nine temporary shelters along the Thai-Myanmar border for over 40 years. Currently, 90,759 refugees are residing in the temporary shelters (The Border Consortium, 2024, November). The perspectives of refugees on return has shifted dramatically through previous decades - ranging from cautious optimism to mistrust and suspicion to outright dismissal after decades of continued conflict (Oh, 2010). TPD is managed by the Karen Refugee Committee – Education Entity (KRCEE) in seven of the shelters: Mae La, Nu Po, Umpiem Mai, Mae La Oon, Mae Ra Ma Luang, Tham Hin, and Ban Dong Yang. In the 2024-2025 academic year, there were 46 schools, 24,462 students, and 905 teachers under KRCEE administration (KRCEE, 2024, August). During the past three years, refugee camp school enrollment has increased due to the ongoing conflict and displacement throughout Myanmar: student enrollment has increased by more than 30% and the number of teachers has increased by almost 10%. Education in these camps was established by and is still managed by refugees themselves. This has allowed mother tongue-based multilingual education using S’Gaw Karen language and the promotion of local cultures and histories. However, it has also further isolated refugee educators from the mainstream systems in both Thailand and Myanmar.

Currently education as a whole, and professional development for teachers specifically, in the temporary shelters is primarily supported by Save the Children Thailand Foundation which is funded by the European Union and Australia’s Department of Foreign Affairs and Trade. Although financial support for education in the temporary shelters has remained fairly consistent in recent years, it has not been able to adequately meet the growing needs (TeacherFOCUS, 2018; 2019; 2021). Consequently, local education authorities have struggled to maintain basic education services including teacher recruitment and retention, adequate supply of textbooks and teaching and learning materials, regular maintenance of school infrastructure, teacher quality, and school management and leadership. A constant hardship facing Karen TPD in the refugee camps is the loss of educated, trained, and contributing members of the education workforce (see **Figure 1**). This persistent struggle, unfortunately all too common among refugee contexts, has negative impacts on education quality, institutional knowledge, student motivation, and training capacity (Banki & Lang, 2007; 2008). In the 2024-2025 academic year refugee teachers received a monthly stipend of 1,030 THB/ month [\$30 USD] which is only 14% relative to the minimum wage in Thailand.

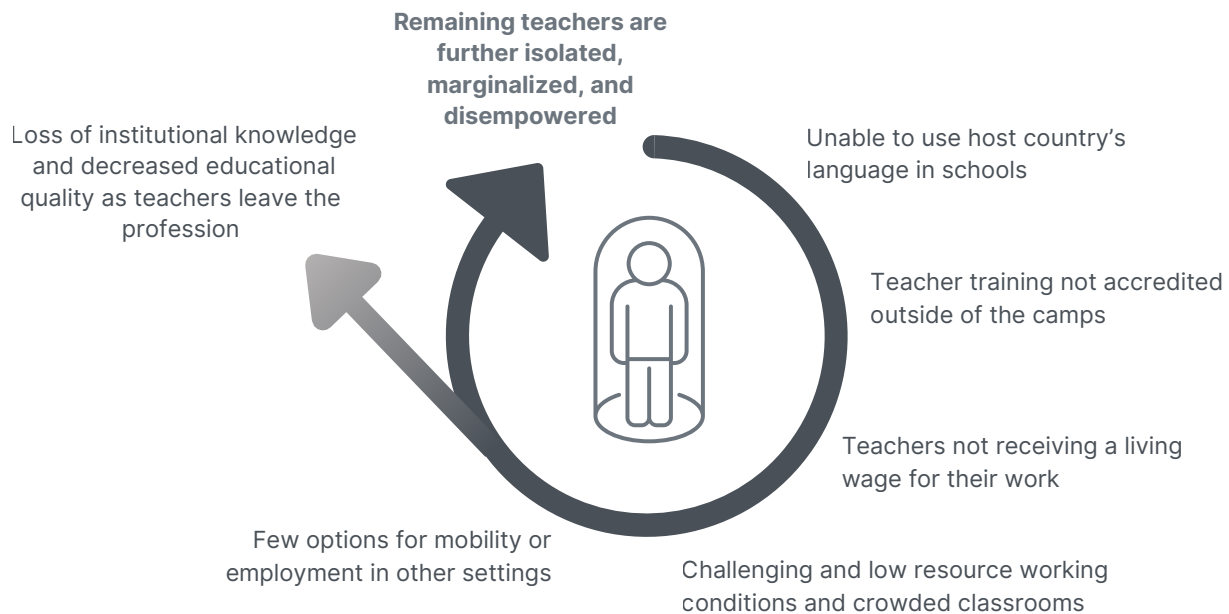
Figure 1. Challenges Perceived by Teachers Employed in Temporary Shelters

Source: TeacherFOCUS, 2018

Educators in the temporary shelters must often take on extra roles and responsibilities beyond classroom instruction. This is especially challenging as most new teachers have only a high school education (Tyrosvoutis et al., 2023). Combined with inadequate remuneration, a lack of recognition for their experience lowers teacher motivation and leads to high dropout rates among teachers: a cited vicious cycle all too common in refugee settings (Falk et al., 2019; Ring & West, 2015).

At the same time, only 84% of refugee teachers were even able to receive a stipend in 2023-2024 due to a longstanding funding shortfall (KRCEE, 2024, February). Refugee teachers continue to be the lowest paid civil servant in the refugee camps, despite international organizations' best efforts to provide adequate remuneration. This unfortunate reality is part of a larger trend in refugee education, as Mendenhall and Falk (2023) have shown that international donors historically show apprehension in committing to recurrent costs like teacher salaries. These financing shortfalls can also be attributed to the overwhelmed and underfunded global humanitarian assistance sector (Development Initiatives, 2023). The result is that in the 2023-2024 academic year the teacher dropout rate was 35% and the average professional tenure of teachers was only 2-3 years (KRCEE, 2024, February). In the 2023-2024 academic year there were 193 new teachers requiring training out of 555 total: about 35% of the entire teaching workforce.

Unlike in many other contexts of mass displacement, refugees in Thailand are disallowed from formally learning Thai, the language of the host country, in the camps. This has acted to severely limit the economic, educational, and overall mobility opportunities available for refugees, should they desire to relocate outside of the camps. Another distinction compared to other refugee contexts is that camps on the Thai-Myanmar border are governed by national authorities: Thailand's Ministry of Interior, not an international non-government organization or United Nations entity. These critical differentiations work to strip those displaced on the Thai-Myanmar border of their full rights as refugees (see **Figure 2**). This enforced isolation is unfortunately symbolic of larger patterns in refugee education (Falk et al., 2019).

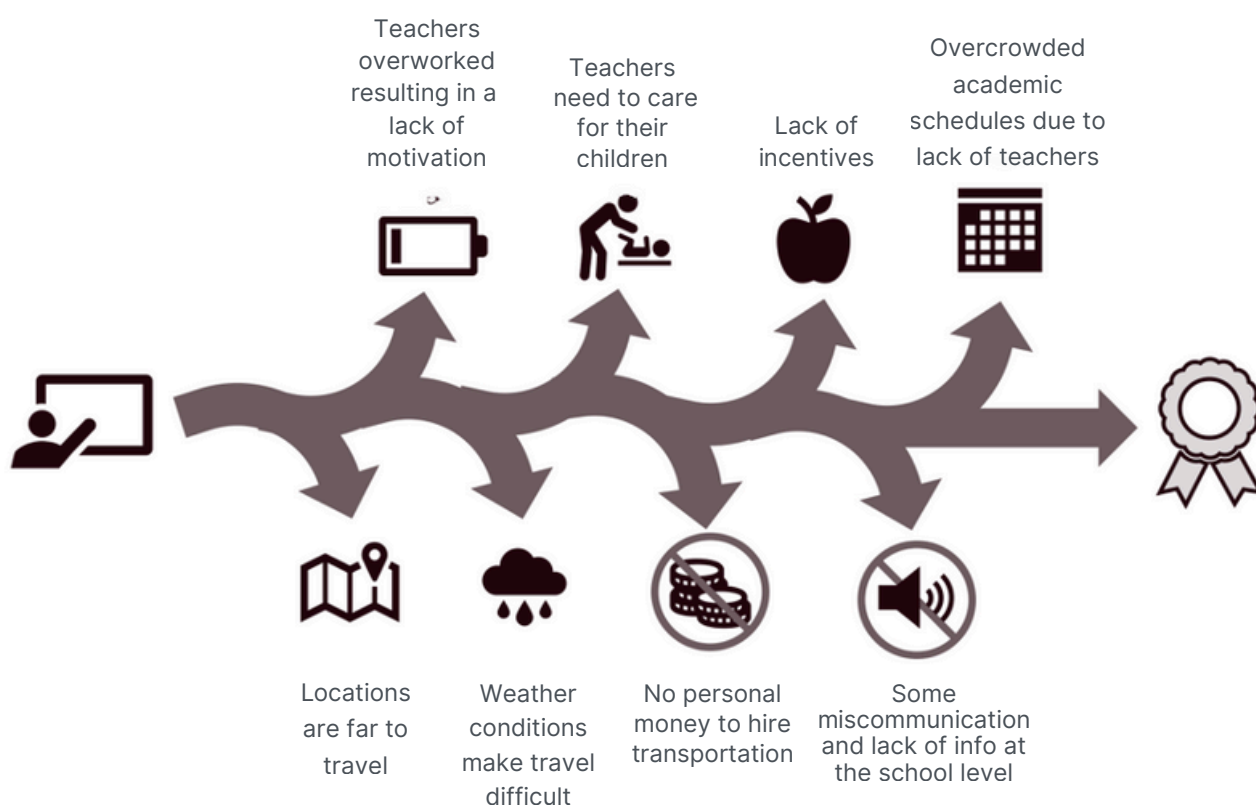
Figure 2. The Refugee Teacher Isolation Cycle

Source: Tyrosvoutis et al., 2023

Mae La is the largest and arguably the most well-resourced of the refugee camps. Despite this, teachers in Mae La work in challenging, low resource classrooms with near countless challenges: harsh climate impacts - being incredibly hot in the dry season and deafeningly noisy during monsoon rains, overcrowded and multi-age classrooms, student desks and benches fixed to the floors, substantial noise from adjacent classrooms as most classroom 'walls' consist of chain-link fence or thin particle board, insufficient and damaged textbooks, and many new students who have fled conflict and have diverse language repertoires. Having students' tables and benches fixed to the floors limited creative possibilities and resulted in teachers being forced to employ teacher-centered, rote style instruction. Classes have become more diverse as many newly arrived children are not fluent in S'Gaw Karen - the language of instruction in most schools. Due to the ongoing teacher shortage, some educators need to cover two classes at the same time and struggle to dedicate the time needed for preparation and professional development.

TPD in Mae La has changed substantially over the past three years. The current five-day pre-service teacher training covers teaching fundamentals such as principles of how children learn, the role of a teacher, child rights, student-centered learning, lesson plan development, classroom management techniques, and micro-teaching demonstrations. Throughout the school year, all teachers are invited to attend voluntary Friday afternoon professional development workshops which focus on subject-specific training. These workshops are provided by camp-based resident teacher trainers (RTTs). Workshops are designed to be practical and focus on preparing lesson plans, creating teaching and learning materials, and reviewing subject content for future lessons. During workshops, RTTs ask teachers to prepare micro-teaching lessons so that teachers can apply new approaches. As seen in **Figure 3** below, there have been numerous barriers reported for teachers to attend weekly TPD sessions in Mae La.

Figure 3. Barriers to Refugee Teachers' Participation in Weekly Professional Development in Mae La



Source: TeacherFOCUS, 2018

Resident teacher trainers report to the Office of Camp Education Entity (OCEE): the local educational authorities and camp-based counterpart of KRCEE. Data from classroom observations is used by RTTs and local education authorities to determine future areas for professional development. If a teacher is identified as needing additional support, the RTT will provide individualized support and, depending on their capacity, the school leader will also be called in to assist. During the last Friday of each month a school leader meeting occurs with local education authorities to discuss issues and concerns within the schools. This is also an opportunity for information sharing by local education authorities and KRCEE to the schools.

"Some NGOs are helping us, but we need to find our own way. If we can't stand on our own, who will help us? People have tried to eliminate us. We understand that we need to stand and try hard. We cannot depend on others. We have to run. We have to hide. We have to find shelter in other countries. We have less people supporting us. We only have rations to eat. We can't wait for handouts and rations. We have to look out for our people."

- Local Education Authority, Mae La Refugee Camp

Due to its proximity to Mae Sot, Mae La could be considered the most accessible of the temporary shelters on the border. Despite this, there are significant barriers for entrance including Ministry of Interior military checkpoints, and the need for camp passes which require a 1-month application period and approval from the central level. Obtaining regular legal permission to enter the camp requires first having legal documentation to reside in Thailand. This results in limited support visits from central staff, thus making it challenging to provide regular follow-up to camp-based RTTs and teachers. Contextual challenges in the refugee camps such as remoteness, monsoon flooding and landslides, forest fires, and inconsistent electricity and phone signal create challenges when collecting data needed to make decisions regarding TPD. Formal school-level data collection is challenging and has resulted in camp-wide educational data being collected only 1-2 times per year. Access to the camps has become stricter in recent years and is now only legally possible with the support of the Committee for Coordination of Services to Displaced Persons in Thailand (CCSDPT) member, in this case, Save the Children Thailand.

"The training that we received is enough, but the teacher-student ratio makes it very difficult to teach. Most of the new students...cannot understand Karen and haven't been in school for 2-3 years. We need to start at the beginning. The students' age and grade don't match so it is hard for the children and the teachers."

- Teacher, Mae La Refugee Camp

During the pandemic, national COVID-19 health and safety protocols were strictly enforced in Mae La, as health services in the camps were very limited. During the pandemic, no one was officially permitted to enter the camp without a multi-day quarantine period. This situation was especially difficult given the already low resources and financing available in the camps. Save the Children Thailand was able to raise additional funds to provide schools with much needed personal protective equipment, hand washing stations, and information packages. Despite this much needed intervention, schools in the camps remained closed for the better part of two years. With internet connectivity in Mae La being limited at best, online TPD interventions could not be rolled out at scale. Only TPD with small groups was possible while physical access to camps was restricted.

Cross Border Collaboration

Systems for the professional development of Karen teachers, and the wider Karen educational system for that matter, began as one unified system. In the past, international donors supported professional development for Karen teachers on both sides of the border via a single organization based in Thailand. In the early 2000s, the funding requirements of a previous major donor caused a rupture in the system. Their requirements stated that funding had to be segregated between the countries and thus two sister-systems were born: one managed by the Karen Education Department (now the Karen Education and Cultural Department) overseeing TPD in Karen State, and one managed by KRCEE overseeing TPD in Thailand. During the period between 2000 and 2015, refugee TPD received significantly more financial and technical support from international stakeholders. This led teachers and trainers in Karen State to travel to the refugee camps to receive training.

At present, the dynamics have pivoted 180-degrees and there is significantly more funding and support available for TPD in Karen State compared to the refugee camps. Multiple factors have resulted in increased donor prioritization of system strengthening of ethnic education actors to independently administer education in Myanmar, leaving refugee TPD with skeletal funding. Over the past three decades, KECD, KTWG, and KRCEE have received funding from major government donors including the EU, USAID, FCDO (formerly DFID), and DFAT. Despite this relative financial stability, Karen teachers have received \$1.00 USD per day or less for the past three decades, resulting in a significant decline in real wages when adjusting for inflation.

There are strong sentiments from both the leadership of KRCEE and KECD for reunification and greater collaboration, as one senior leader from KECD previously shared,

“Don’t make the borderline thicker. Keep the boundary imaginary like the equator. Karen education does not follow those boundaries. Donors need to forget borders and cooperate and coordinate together with education implemented by the same group.” (TeacherFOCUS, 2022, p. 35)

Numerous academics and technical specialists have conducted research and published reports on Karen TPD and have provided technical support to strengthen and align TPD systems to regional and international standards (Gyi & Waters, 2023; Johnson, 2016; Jolliffe & Speers Mears, 2016; Lall, 2016; South & Lall 2016; World Education Thailand and Myanmar, 2017). Despite these efforts, Karen teachers lack pathways for mobility and professionalization outside of their contexts.

KECD and KRCEE work closely together, describing their relationship as “big brother and little sister” and as “the same organization” with different mandates (TeacherFOCUS, 2022, p. 33). Both KECD and KRCEE were cited as being in favor of a funding mechanism whereby donors transferred funds to an expanded Karen consortium which includes KECD, KTWG and KRCEE. This reunification was perceived to have benefits including increased coordination and technical synergies such as curriculum support, TPD, teacher and student recognition, system strengthening, advocacy, and policy promotion (ibid.).

Numerous additional synergies exist between Karen TPD organizations on either side of the border. KECD, KTWG, and KRCEE are all financially supported directly or indirectly by country offices of the same international non-governmental organizations. KECD and KRCEE collaboratively manage the Karen Education Fund which conducts international fund raising to supplement educational costs for teaching and learning materials and educational costs in both Karen State and the temporary shelters. In 2020, KTWG supported the Center for Rural Education Development (CRED) and worked alongside KRCEE to provide subject-based capacity building in the refugee camps. In that capacity, CRED trainers traveled to the shelters to provide teacher training to local education authorities and RTTs. In 2021 this initiative ended and KRCEE has since taken a larger role in TPD.

KRCEE, KTWG, and KECD are all members of the Karen and Karenni Education Stakeholder Team (KKEST): a platform for ethnic and refugee education stakeholders to coordinate and jointly advocate. A common curriculum is used in all schools on both sides of the border. Versions of the Karen teacher competency standards framework are now being used by all Karen education stakeholders, as the refugee-focused adaptation was rolled out in 2024. Collaborative training of trainers has been occurring informally between KECD, KTWG, and KRCEE as the curriculum continues to be revised and updated. KRCEE shared that KECD has invited their trainers to join some subject-based capacity building training, but they desired more collaboration and coordination to ensure trainers from both organizations are able to deliver the same quality of support to teachers. These synergies have driven the development of key research questions for this study and shaped the overall design of this comparative case study.



Theoretical Framework: Complexity Theory


There is a growing body of literature which applies complexity theory to TPD and draws on the applications of complex adaptive systems from organizational studies to unpack system-level change processes. Rinehart and Tyrosvoutis (2023) applied complexity theory to examine how parallel TPD providers across Myanmar and its borderlands navigated the COVID-19 pandemic. It was found that while the pandemic largely paralyzed the provision of TPD within Myanmar's central government system, parallel actors were able to employ complexity aware responses thereby enabling continuity of services in some cases within just six weeks.

Rinehart and Tyrosvoutis (2023) interviewed parallel TPD providers, including KECD, KTWG, and KRCEE, and concluded that many exhibited traits of complex adaptive systems, namely: complexity aware project management and funding strategies, organizational adaptation and learning, and decentralized management structures. As a direct and specific extension of this previous work, this study will apply complexity theory as a theoretical framework to deeply examine the organizational features and leadership approaches KECD, KTWG, and KRCEE have employed in response to historic and contemporary disruptions.

Over the last decade complexity theory has been increasingly applied to TPD as it has proven to be a useful framework to examine adaptation and evolution (Cochran Smith et al., 2014; Ell et al., 2017; 2019; la Velle, 2020; Ludlow et al., 2017; Martin et al., 2019; Mitchell et al., 2022). Specifically, adaptation has been regarded as an advantage allowing the teacher education systems to modify modalities and self-organize through feedback loops and bottom-up processes (Cilliers, 1998; Morrison, 2008).

In their publication, Complexity theory as a guide to qualitative methodology in teacher education, Ell et al. (2019) advocate to understand how a complex system like TPD evolves, longitudinal studies that collect rich data from multiple sources are essential. Describing the conventional approaches to studying discrete TPD policies, programs, practices, processes, perspectives, and beliefs, Cochran-Smith et al. (2014) conclude these siloed efforts "...have generally not yielded deep enough understanding of the phenomenon of teacher professional development nor generated powerful enough knowledge to solve the seemingly intractable problems of initial teacher education and teacher quality" (p.4). The four specific traits of complex adaptive systems that will be explored in this study are outlined in **Table 2**.

Table 2. Traits of Complex Adaptive Systems used to Frame the Study

Traits of Complex Adaptive Systems	Description	Application within the Study
<p>Adaptation</p> 	<p>Adaption is a key feature of any complex adaptive system, allowing it to respond and evolve amidst a changing context. An adaptive system influences and is influenced by events and change in the context. Adaptation can take the form of either a reaction to a disruption or can be goal-oriented, meaning it reacts to achieve a wider aim (Ramalingam & Jones, 2008).</p>	<p>This study will examine how the roles and responsibilities of teachers, teacher trainers, school leaders, local education authorities and senior leaders have adapted in response to crises. The study will also identify organizational and programmatic features that changed to meet the emergent needs of teachers and students.</p>
<p>Feedback Processes</p> 	<p>Change within a complex adaptive system can be informed by feedback loops between different actors. This iterative process leads to informed and localized responses. Certain actions are reinforced by positive feedback loops, creating momentum for further action, while other patterns are influenced by negative feedback loops, thus inhibiting further action (Davis & Sumara, 2007).</p>	<p>This study will examine how information travels up and down the vertical chain of actors in both cases, with the specific focus of identifying if the feedback leads to change. The following established feedback loops are known to exist between the following actors in both cases: Teachers and teacher trainers; School leaders and local educational authorities; and Local education authorities and central level senior leaders.</p>
<p>Emergence</p> 	<p>Emergence refers to the outcomes created by interactions between the actors in a complex adaptive system. The product is defined by the patterns of behavior, or the emergent effects, produced by these interactions. Within education, emergence can account for how relationships give rise to wider social phenomena at the system level, including cultural beliefs and shared social practices (Sawyer, 2005).</p>	<p>This study will examine the roots of the organizational culture that exists within KECD, KTWG, and KRCEE. Specifically, how interaction between actors in each vertical case has acted to promote or inhibit specific organizational values, social practices, mindsets, and values.</p>
<p>Decentralization</p> 	<p>Complex adaptive systems often exhibit decentralized traits and are organized at the local level. Local actors have the agency to react to their environment and use available information to make contextually informed decisions. This also leads to interdependence, which refers to larger patterns of behavior arising from the interactions of individuals - different actors influence each other whereby if one changes or adapts, others are likely to follow (Cilliers, 1998).</p>	<p>Decentralized management structures were a main feature discovered by Rinehart and Tyrosvoutis (2023) which enabled continuity of TPD during the COVID-19 pandemic. This study will seek to more deeply unpack this phenomenon by investigating the presence of complexity aware leadership approaches, local governance, autonomy, and self-determination, as well as how data is collected and used.</p>

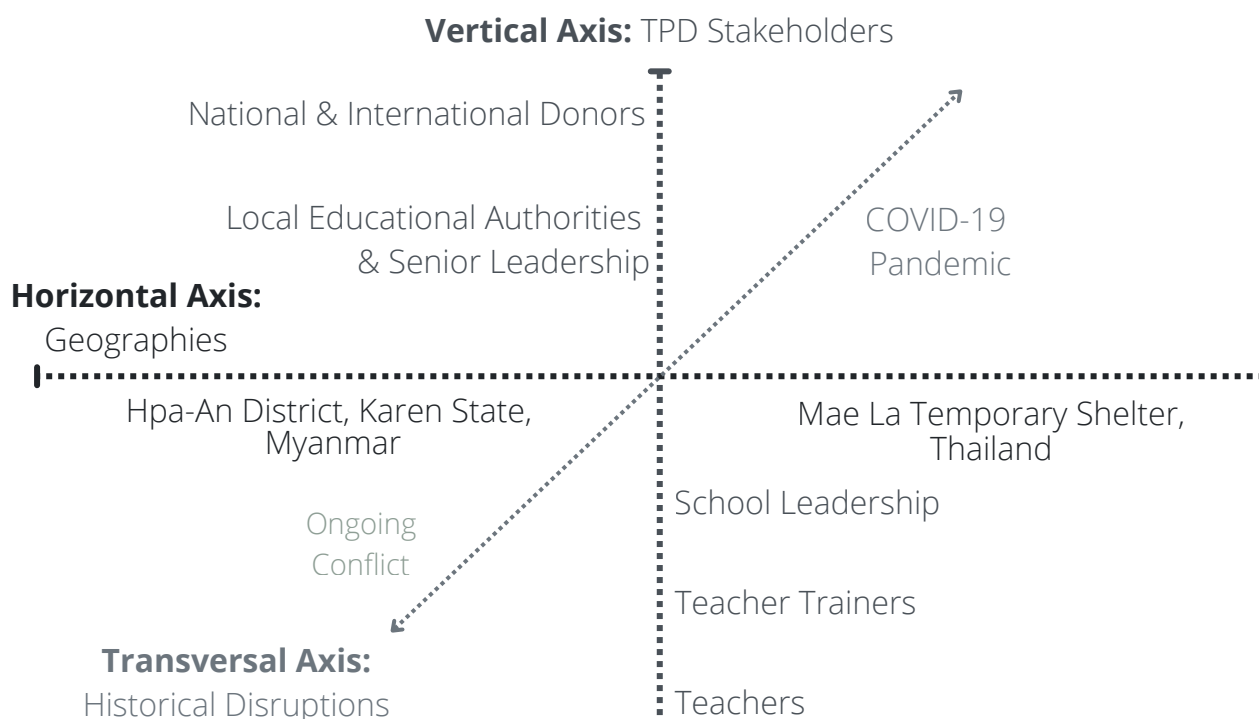
IV. Research Design

In *Designed for disruption: Lessons learned from teacher education in Myanmar and its borderlands*, Rinehart and Tyrosvoutis (2023) interviewed teacher education providers and development partners, however, a cited limitation of the study was the inability to gather the perspectives of teacher trainers, school leaders, senior leaders, and most importantly, the teachers themselves within parallel TPD systems. This study seeks to build on our previous work by gathering and triangulating the perspectives of diverse stakeholders invested in Karen TPD on both sides of the Thai-Myanmar border.

This study utilizes Vavrus and Bartlett's (2017; 2022) comparative case study methodological approach in order to provide a comprehensive platform from which to disseminate findings to other applicable contexts. Comparative case studies are a recent iteration of Vavrus and Bartlett's vertical case study (Bartlett & Vavrus, 2016) which seeks to create more relatable research platforms. Comparative case studies seek to triangulate knowledge claims across education actors with different social locations, while also attempting to situate how policy is interpreted at different levels and across time.

Therefore, comparative case studies represent a potentially viable means of synthesizing local-level contextualization and macro-level analysis within TPD. This comparative approach recognizes that phenomena within TPD are influenced by larger socio-political, historical, geographic, demographic, and cultural forces not solely bound at the local level. Comparative studies utilize a structured three-axis design to analyze how understandings of national and global policies and trends become localized by actors at different levels (see **Figure 4**). The vertical axis incorporates local (micro), subnational and national (meso), and international (macro) perspectives. The horizontal axis ensures a multi-sited analysis. The transversal axis examines phenomena 'across and through time' (Bartlett & Vavrus, 2014, p. 133).

- **The Vertical Axis:** will seek to gather the perspectives of diverse TPD stakeholders: teachers, teacher trainers, school leadership, local educational authorities, senior leadership, and national and international donors.
- **The Horizontal Axis:** represents the two study locations: Hpa-An District, Karen State, Myanmar and Mae La Temporary Shelter, Tak Province, Thailand.
- **The Transversal Axis:** represents the historical events the study will focus on, in this case the two most recent disruptions – the COVID-19 pandemic and the ongoing conflict as part of the attempted coup d'etat.

Figure 4. A Comparative Case Study of Karen TPD

Data was collected between May and July 2022. Convenience sampling was used to select Karen TPD stakeholders in both cases for participation in qualitative focus group discussions and key informant interviews (see **Table 3**). Data collection occurred during regularly scheduled teacher training workshops using a pull-out approach: asking for volunteers to step out of the training to go to a quiet place to hold a focus group discussion.

Table 3. Study Participants

Participant/ Place of work	Primary Teachers	Subject, Resident & Mobile Teacher Trainers	School Leaders	Senior Leadership and Local Education Authorities	National and International Donors	Total
Mae La Temporary Shelter, Thailand	9	6	3	5	3	25
Hpa-An District, Karen State, Myanmar	9	10	3	9	3	34



A low resource high school classroom in Mae La Oon Refugee Camp. This photo is taken during a teaching observation during regular classroom support

V. Findings




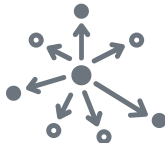
Complexity Concepts that Enabled the Continuity of TPD

"Karen education has existed for a long time and has overcome a lot of disturbances. In a way it gives us resilience and the opportunity to be ready - to be adaptable for disruption. We are experienced in those situations. Even though the community has to run away from the village [due to conflict], we try to set up a temporary shelter for children to have access to education. This plan comes from experience. It is one of our strengths."

- Senior Leader, Karen State

Findings from the two cases make it clear that Karen TPD on both sides of the border has needed to operate in dynamic environments replete with disruption. In response, each system leveraged unique organizational features and leadership approaches to promote the continuity of TPD. Specifically, there are four key elements of complex adaptive systems that will be explored within the findings of this study: adaptation, feedback loops, emergence, and decentralization (See **Table 4**).

Table 4. Traits of Complex Adaptive Systems that Enabled the Continuity of TPD

Traits of Complex Adaptive Systems	Specific Traits Exhibited
<p>Adaptable approaches including differentiated modalities employed in different contexts</p> 	<ul style="list-style-type: none"> • Tailoring TPD frequency, location, date, topics, and participant numbers to each context and emergent needs
<p>Organizational learning via feedback loops with actors on the ground</p> 	<ul style="list-style-type: none"> • Use of feedback/ reflection cycles and intentional collection of teacher voice from the school to central level • The triangulation of formal and informal data from a variety of local sources to make informed decisions during crisis
<p>Emergence of an organizational culture promoting specific organizational values, social practices, and mindsets</p> 	<ul style="list-style-type: none"> • An organizational culture of service/sacrifice and compassion towards teachers working and students learning in challenging circumstances
<p>Decentralized decision-making and interdependence between stakeholders</p> 	<ul style="list-style-type: none"> • Distributed leadership via leveraging human resources and delegating responsibilities to local-level actors • Self-governance and the ability to determine educational policies responsive to the needs of local communities • Complexity aware project management and funding strategies, namely the ability to exhibit flexibility through the reallocation of funds and the revision of project indicators based on emergent needs

Adaptable Approaches and Modalities

“Two years ago till now, we couldn't provide training in all areas due to conflict and transportation...As an example, we went to give training to 30-40 teachers but the night before airplanes flew overhead so we had to cancel the training. Now we don't know how to organize the training. The training must occur in a safe place. Now we cannot find those places. We plan the training but need to change the location again and again.”

- Teacher Trainer, Hpa-An District

A highlighted exhibited trait of complex adaptive systems in both cases was the ability to rapidly adapt programming to ensure continuity during disruption. While both systems embraced change to different degrees and were therefore differently able to respond, it was clear that being adaptable was a complexity concept that both systems frequently employed. Both systems navigated recurrent/familiar challenges, but also totally new challenges, such as the COVID-19 pandemic and the influx of non-Karen speaking students and teachers. While TPD was adapted in both contexts, actors in Karen State had more local autonomy and flexible financing to deliver support in diverse ways compared to the refugee camps.

“Amidst the airstrikes and bombing [KECD and KTWG] can keep the programs going. This is amazing and resilient... They can keep moving amidst those challenges. Education continues in the jungle. The teachers take extra steps and do more work.”

**- Donor supporting education
in Karen State**

Due to conflict and security-related concerns, actors in Karen State reduced the length and number of participants of their trainings and increased the frequency of offerings. At the same time, they changed the training locations to areas at less risk, added new topics relevant to emergent needs such as socio-emotional learning and emergency response, and piloted new training modalities such as online TPD. They also incorporated teacher stipend distribution on the last day of the training which both increased motivation for teachers to join and reduced the need for separate trips. When travel was not possible, trainers in both contexts shifted their focus to teacher training materials development and didn't commit to on the ground implementation. As seen in **Table 5**, adaptability was exhibited by all TPD stakeholders in both cases, albeit to various degrees, in response to disruption.



Table 5. Examples of Adaptability Across Both Cases

Stakeholder	Adaptable Approaches
Teachers	<ul style="list-style-type: none"> • Used new teaching methods in challenging environments, such as home-based learning and teaching in temporary learning spaces • Taking on additional roles outside the classroom such as emergency response and parental/community support • Provided socioemotional support to children
Resident Teacher Trainers and Mobile Teacher Trainers (RTTs and MTTs)	<ul style="list-style-type: none"> • Adopted online teacher training models • Provided new content to teachers: socio-emotional learning, COVID-19 prevention, child safeguarding, and mine risk education • Worked on materials development • Embraced dynamic schedules and routines
School Leaders	<ul style="list-style-type: none"> • Supported teachers during periods of isolation when trainers couldn't travel • Ensured safety and security of both schools and communities • Took a key role in school level emergency planning
District and Camp-Level Leaders (DEOs, TEOs & OCEE)	<ul style="list-style-type: none"> • Gathered information from local health officials and armed actors to determine the feasibility of training • Acted as the focal point/key decision-maker for their communities when communication channels were down
Senior Leadership	<ul style="list-style-type: none"> • Triangulated information to determine new priority areas • Revised budgets and project indicators in line with emergent needs
Donors	<ul style="list-style-type: none"> • Reallocated budget in consultation with senior leaders • Shifted work plans and project indicators • Advocated to government donors for increased flexibility

Both TPD systems have a keen sensitivity to the local environment and possess the ability to operate in very low resource settings. While both systems attempted to use online training modalities when face-to-face options were not possible, each defaulted to paper-based solutions to get necessary training content to school-level actors. Both TPD systems demonstrated an acute mindfulness of the circumstances of their teachers and managed to introduce innovative offerings, including remote training for teacher trainers with totally new topics. A home-based learning model was developed for children in Mae La whereby teachers had to travel to students' homes to conduct small group teaching. While this is an incredible feat considering the constraints, however, teachers felt overwhelmed and underprepared by the professional development they received. It was clear that more tailored support was needed along with differentiated programming for each camp.

"Mountain areas are safe but schools nearby SAC areas are not safe, and it is difficult for teachers to participate [in training workshops]. The situation is getting worse. Even now to come to this training, it takes 3-4 days to come here because we can't go through the cities. We need to travel through the jungle."

-Teacher Trainer, Hpa-An District

While highly structured and formalized approaches (including the use of comprehensive teacher competency frameworks and lesson plan templates) lend many benefits to both systems, this study found that their use during times of disruption was perceived to undermine the responsive strengths of TPD as they were viewed by teacher trainers more often as a burden rather than adding value to programs. For this reason, both systems made difficult decisions to suspend highly structured and formalized TPD programs: the rollout of the refugee teacher competency framework in the refugee camps, and the use of mobile teacher trainers to collect comprehensive classroom observation data in Karen State. While senior leaders acknowledged that comprehensive data collection was a strength of their TPD systems, it was recommended by most interviewed teachers, trainers, and senior leaders to reduce the number of standards within the current classroom observation tools. Currently some educators are teaching over sixty students in a confined space while others are teaching on the forest floor – both settings where active learning and participatory approaches are near impossible. These examples illustrate the need to prioritize locally driven responses and adaptable approaches during times of uncertainty.

The Trade-offs of Adaptation

During the relatively stable period from 2016-2020 more formal and standardized approaches to TPD became possible. This included developing more thorough teacher performance appraisal tools, increased external accountability systems from donors, the development of comprehensive frameworks, and a stronger focus on data-driven decision-making. These activities proved highly beneficial as they enabled senior leaders to align their systems to national and international standards, advocate for the legitimacy of their systems to the former civilian government, and identify previously unrecognized blind spots within their TPD programs, such as teacher's use of rote methods. During this period, evidence-based advocacy for the recognition and certification of Karen teachers became possible with the new data being collected. The ability of these organizations to adopt new approaches, thereby revising their policies, programming, and plans in a relatively short period of time represents a significant achievement considering the contextual constraints. Meeting emergent needs was largely prioritized over consistent system-wide implementation. However, there is a trade off with the constant adaptation of programs. Without system-wide standardization of TPD, advocacy for recognition becomes more difficult and consistent educational quality becomes harder to achieve. In both cases, difficult decisions were made to reduce the frequency and comprehensiveness of teacher observations during the crises. Both systems exhibited the ability to adjust their TPD models during disruption which assisted them to navigate their dynamic contexts.



A temporary learning space set up in response to nearby airstrikes in Duplaya District, October 2024 (source: CIDKP)




A subject-based teacher training workshop taking place in Mae La

Organizational Learning Through Feedback Loops

KTWG demonstrated continuous organizational learning through feedback loops between teachers, mobile teacher trainers, and senior leaders at the end of every teacher support cycle. This system was used to inform future training topics and delivery modalities. There was more evidence of organic feedback loops that lead to organizational learning between school level actors and senior leaders in Karen State, where teachers' voices were central to decision-making. There was evidence that school level perspectives were being used to improve programming and led to the differentiation of delivery models in different districts. While both systems were found to be needs driven, the extent to which there was local empowerment varied. School level refugee actors more often felt their voices were not heard, not because they were not consulted, but because little change was observed in response to needs being shared due to budgetary limitations. Greater inclusion of teacher voice in decision-making was an aspect many actors viewed as an area for improvement in the refugee context.

Decision-making authority was distributed to ground-level actors, namely District and Township Education Officers (DEOs and TEOs) in Karen State, and Office of Camp Education Entity (OCEE) in the refugee camps as these local leaders possess the most up-to-date knowledge regarding their school communities (see **Table 6**). In Karen State, district level leaders were given responsibility by KECD and KTWG to determine training locations, participant numbers, training frequency, and schedules. Senior leaders relied on these stakeholders to make decisions regarding training formulation in their rapidly changing and sometimes hostile environments. This bottom-up decision-making process ensured TPD was relevant, contextually aware, and conducted in the safest possible manner.

Table 6. A Vertical Breakdown of Information Flow in Karen State

Information Flow	Stakeholder	Role(s)	Information Contributed	Responsible to Decide
	National and International Donors	<ul style="list-style-type: none"> Support local actors to deliver support that meets the needs of teachers and students 	<ul style="list-style-type: none"> Resources and support available Feasibility to shift funds 	<ul style="list-style-type: none"> Project funding cycle Project targets Allocation of technical support
	Senior Leaders	<ul style="list-style-type: none"> Coordination across KECD-KTWG Inform donors and advocate for budget reallocation 	<ul style="list-style-type: none"> Project goals Workplan Budget Situational updates 	<ul style="list-style-type: none"> Budget allocation Resource allocation
	Township and District Education Officers	<ul style="list-style-type: none"> Main decision-makers for TPD Coordinate across schools and communities 	<ul style="list-style-type: none"> Context-specific information: accessibility and security updates 	<ul style="list-style-type: none"> Training location, frequency, duration, and participant numbers
	School Leaders	<ul style="list-style-type: none"> School administration 	<ul style="list-style-type: none"> School needs School-level data 	<ul style="list-style-type: none"> Number of teachers able to join training
	Mobile and Subject Teacher Trainers	<ul style="list-style-type: none"> Observe teachers and collect school level data Deliver teacher training Communicate closely with local education authorities for situational updates 	<ul style="list-style-type: none"> Teacher observational data Teacher needs 	<ul style="list-style-type: none"> Topics for teacher training
	Teachers	<ul style="list-style-type: none"> Provide continuous education while ensuring the safety of students 	<ul style="list-style-type: none"> Teacher and student needs 	<ul style="list-style-type: none"> What is most appropriate for their students



Displaced students taking their end-of-year exams on the forest floor

Continuous organizational learning has shaped TPD programming to meet the emerging needs of teachers. A key reason this has been able to occur was the interdependent, complexity-aware project management and funding strategies employed by leaders, including the triangulation of formal and informal data to make critical decisions regarding TPD. Amidst low resource environments where both phone connectivity and electricity grids are limited, and information channels are inconsistent and sporadic, TPD actors have leveraged both formal reporting channels and informal conduits, such as social media, to make high level decisions.

"You have data coming in on the number of teachers that says they have 5,000 teachers, but actually they plan to give stipends to 7,000 teachers because they know from other informal data points that there is likely to be 2,000 more. I think that is a strength in how the Karen are doing it and it's a shame that they haven't been encouraged to highlight that as a strength."

- Donor supporting education in Karen State

While potentially appearing 'messy' and uncoordinated compared to the highly structured matrices and methodical monitoring and evaluation tools regularly encouraged, informal channels are often the only sources of information in times of crisis. It was found that situational data was used by actors to make decisions regarding TPD, albeit more so in Karen State compared to the refugee context.

Emergent Culture: A System of Sacrifice

"We need to sacrifice. I teach grade one and grade two which have big classes. No one wants to teach those classes, so I do. When I was a student, I didn't want to be a teacher. I wanted to be a medic or a soldier. At first, I tried to be a nurse but I failed, so later on I became a teacher. Later on, I realized that teachers are important for the community...What I have learned and what I know, the children must know."

- Teacher, Mae La Refugee Camp

TPD systems on both sides of the border continue to be underfunded and unable to pay teachers a living wage. Interviewed teachers, teacher trainers, school leaders, senior leaders and donors from both cases were well aware of this reality and all included increasing teacher stipends as their main recommendation to improve TPD. This begs the question, 'why does anyone become a teacher?'. To interviewed stakeholders, teaching was largely not viewed as a profession, but an act of service. School level stakeholders expressed a strong sense of shared responsibility and duty to provide education to children who might not otherwise have it. This led to an emergent organizational culture centered on an ethic of care which extended throughout both vertical cases.

"This is a given responsibility. If not us, who will do this for our people? It's a historically given duty. This is the driving force. We try to encourage people to see this as their responsibility: to be active, caring members of their society, to hold up the community and the society. It is embedded in our system."

- Senior Leader, Karen State



A high school teacher brings her students outside to learn under a tree



In 2024 severe flooding forced 123 Karen schools in 6 districts to temporarily close (KECD, 2024, Sept)

All interviewed stakeholders referenced the sacrifice experienced by teachers as a driver of organizational norms. ‘Sacrifice’ took on multiple meanings within the interviews. First, sacrifice referred to the low salaries education staff receive. For this reason it is not uncommon for education personnel to take on additional jobs to support their family’s livelihood. Secondly, sacrifice also referred to the opportunity cost of being a teacher and the lack of professionalization options. There was a keen awareness that teachers have few options for further mobility and likely the profession would not open further vocational or educational doors. Lastly, sacrifice referred to the sheer difficulty of the profession. Leaders shared that teachers increasingly had to instruct large classes, sometimes up to 60-70 students, with little more than a chalkboard. To this, a refugee leader shared, “We teach them how to fish but we don’t give them the tools to fish. They don’t have enough textbooks and teaching and learning materials”. This ‘system of sacrifice’ requires much from its teachers, however an organizational culture which recognizes the challenges has supported the replenishment of teachers needed to provide education for children in both contexts.

“We need to share our knowledge with the next generation. It is our duty as we are a Karen nation. We love our Karen people and even though we don’t get a good salary, we want our children to have a brighter future. My village needs me. There are only a few people that can read and write. Teachers are important because we see the needs and we want to serve our people. We need more educated people to be like other countries. We need more teachers to support the next generation.”

- Teacher, Hpa-An District

The mentality of meeting collective needs over individual needs permeated throughout interviews in both cases. It was clear this mentality was fostered from the bottom-up: beginning with teachers and then embraced through the organizational cultures of KRCEE, KECD, and KTWG. This other-centered mindset lent itself well to the dynamic contexts as it supported teachers and teacher trainers to try new methods and go to great lengths to ensure continuity of services. In both contexts, school-level stakeholders were called on to both innovate and sacrifice without any additional incentives. TPD would not have been possible in either context without teachers’ or trainers’ strong sense of duty.

Decentralized Decision-Making

In the past the ethnic systems were perceived as the systems that will divide the country – [that] they are unnecessarily making things more difficult for the nation. Actually, we believe they meet the needs of the country. By supporting the Karen and other ethnic education systems, we are solving the problems and preventing them from occurring in the future. If the donors are really interested in supporting the development of the country, they should support through this direction, not through the central level.

- Senior Leader, Karen State

A key theme across interviewed senior leaders on both sides of the border was that the degree to which their systems are decentralized has continued to increase largely in response to hardship and the more actors could exercise local governance, the more responsive their support to teachers was. The disruptions facing TPD in Mae La and in Hpa-An District were described to necessitate a decentralized approach as these challenges often worked to restrict physical access. To this, senior leaders in Karen State described themselves as ‘advisors’ to township and district level authorities for decisions regarding TPD. In Karen State, each district has its own team of subject trainers, and they were described to have the autonomy to decide which topics to deliver. This resulted in teachers in different districts receiving different training based on their perceived needs.

“Everyone participates. Everyone collaborates. Even though we can't reach the refugee camps, we work together with partners and the OCEE. The OCEE works together with the schools and teachers. During COVID we had to ask the camp authorities to help more. No one could enter the camp without quarantine. We asked some teachers to work at different schools to deliver materials and go and explain in different sections. In the camps there have been fires and landslides. KRCEE cannot reach those areas so we depend on other organizations who can, like the OCEE.”

- Senior Leader, Refugee Camps

Within the temporary shelters in Thailand TPD interventions needed to adhere to strict COVID-19 regulations and few, if any, external people were allowed to enter the camps. This acted to limit both responsiveness and the ability to make decisions during the crisis. For this reason, interviewed international stakeholders perceived the pandemic as having a more significant impact on TPD in the camps compared to Karen State. KECD and KTWG had more autonomy to make decisions than KRCEE which enabled more adaptation during the pandemic. Refugee actors did not have the luxury of having many choices due to the restrictive policy landscape in Thailand and the fact they rely on a single donor for TPD. Refugee actors were not able to rapidly reallocate costs as the budget amendment process took multiple months each instance.

Simple classrooms made of natural materials like bamboo, wood, and adobe - a testament to Karen communities making education possible with limited resources



Components of TPD in Emergency

By synthesizing the strengths of the TPD models employed across the two cases, specific aspects surfaced which promoted relevant support despite the dynamic contexts. TPD should be needs-based, place-based, provided by qualified trainers, continuous and individualized, and aligned to professional standards. Each component will be described in the sections that follow.



Needs-Based TPD Content

A teacher uses a poster to educate students about identifying and avoiding dangerous unexploded mines as part of an Explosive Ordinance Risk Education (EORE) training

It is clear that context plays a significant role in the delivery of TPD and is factored into which approaches are selected. Therefore, this comparative case study suggests that TPD in emergency settings be based on the specific needs of the context. In line with the recommendation that the content of TPD should reflect the daily realities of teachers and students (INEE, 2024), new topics, such as COVID-19 health and safety, socio-emotional learning, disaster risk reduction, emergency response and preparedness, and mine risk education, were all incorporated into TPD. The addition of these topics was designed to help prepare teachers to respond to contemporary challenges in their specific contexts. Interviewed teachers were overall largely welcoming of the new topics, especially in Hpa-An District where teachers reported needing to employ emergency procedures and socio-emotional support for their students.





During the summer break, teacher training took place to prepare for the upcoming school year. The session was held outside the village near a bamboo grove, which provided protection from potential airstrikes



Place-Based Training and Support

INEE (2024) recommends that teachers should receive professional development in the context where they work: their classrooms. When the threat of COVID-19 reduced, Karen teachers on both sides of the border received classroom observations – a place-based form of TPD. This allowed teachers to receive direct feedback on their teaching while at the same time enabling trainers to witness the realities in Karen classrooms. Trainers on both sides of the border demonstrated a keen awareness of the hardships teachers have been forced to navigate and were therefore strong advocates for teachers by ensuring teachers' perspectives were shared with decision-makers. Mobile teacher trainers take on significant risk traveling to remote schools throughout Karen State, but it was evident from their interviews that they see school visits as a key method to both encourage teachers and better understand the situation of Karen schools.

While more school-based approaches for TPD were recommended by school leaders and senior leaders, there was also a recognition that more capacity is needed at the school level to make this model sustainable. School leaders described themselves as overwhelmed and needing to conduct long lists of administrative duties in addition to frequently covering for absent teachers. New TPD models were rolled out during the pandemic which reflected the contextual limitations at that time. In both Mae La and Hpa-An District, teachers received paper-based TPD when face-to-face training wasn't possible. In both contexts teacher trainers and teachers received some online professional development, however, it was perceived by interviewed school-based stakeholders as not sustainable due to limited resources and connectivity.



TPD Provided by Qualified Trainers

Teachers and teacher trainers in the refugee camps use recycled rice sacks as re-usable teaching aids in their classrooms - a low resource solution to create engaging teaching aids

The requisite qualifications and skill sets needed to be either a subject or mobile teacher trainer in Karen State, or a resident teacher trainer in one of the temporary shelters are intentionally high as teacher trainers are the key agents of TPD. To be a teacher trainer, candidates must have a minimum of two years of teaching experience and a college-level education. It is preferred that candidates are multilingual and can commit to a minimum of two years. Interviewed senior leaders in both cases shared that they would rather leave the position empty than hire an unqualified candidate. As a clear example of this, in the refugee camps resident teacher trainers are required to pass a subject-based test to interview for the role. For this reason, senior leaders in both cases shared the difficulty they have ensuring all trainer positions are filled. This uncompromising stance of employing only qualified trainers is in line with the recommendations of the UNESCO's International Institute for Educational Planning (2010) who state that teacher trainers should have both extensive field experience and specific qualifications. As all trainers have previously been teachers and have experience in their respective contexts, trainers exemplify the recommendation by the Commonwealth Secretariat (2013) that experienced teachers should be the ones providing ongoing support to new teachers.





Teachers and students in Karen schools work with basic tools - chalkboards, paper and pencils - in schools without electricity. Teachers move between indoor and outdoor spaces to allow for more active learning opportunities



Continuous and Individualized

Both TPD systems in this comparative case study view support to teachers as an ongoing process. Little, if any, training is provided that is not in line with the topics in the respective TPD curriculum and the relevant classroom observation tools. All teachers receive at least two classroom observations each year to evidence improvement. Classroom observations also allow each teacher to receive some individualized support and feedback. This ongoing process of professional development aligns with recommendations that emphasize the need for TPD to be sustained over a long period of time and regularly assessed through a process of change (Katz & Dack, 2013; Levin, 2008; Tobia, 2007). In the refugee camps, teachers can choose which Friday afternoon professional development workshop they want to attend. Some teachers reported to have attended multiple workshops each month, while others shared they only attend one workshop each month.



Students learn addition through visual aids. The teacher is using drawings of items to help children count, and encourages them to explore by creating their own examples to enhance their understanding of numbers.



TPD Aligned to Professional Standards

Interviewed teacher trainers and senior leaders in both contexts shared the value of having professional standards for Karen teachers. The Karen Teacher Competency Standards Framework and the recently developed version specifically for teachers in the refugee camps was a point of pride shared by senior leaders in both cases. Classroom observation tools and the TPD curriculum in both contexts are aligned to the relevant frameworks. The topics of in-service training are determined from the skill deficits identified through classroom observations at the beginning of each academic year. In line with recommendations from Timperley (2008), the teacher standards include competencies associated with quality teaching: subject matter knowledge, pedagogical content knowledge, assessment, communication, classroom management, and learning and development. Additionally, there are numerous standards specifically relevant to the context such as: mother tongue-based and multilingual education, the incorporation of local culture and heritage into teaching, and creating teaching and learning materials in low resource settings. An ongoing advocacy message shared by senior leaders in both cases was the recognition of Karen teachers. It is hoped that having the Karen teacher competency standards framework will be useful for future advocacy to governments and academic institutions. This missing piece was viewed as a critical component needed to address the teacher attrition problem in both the refugee camps and in Karen State. Having this common framework is a critical step in the alignment of TPD on both sides of the border.

Impacts of Funding and External Support

Through a synthesis of the perspectives of senior leaders and donors in both cases, five key types of funding and external support mechanisms were viewed to enable responsive TPD across the contexts: diversity of funding, flexibility, a partnership approach, long-term scope, and a focus on personnel. Each approach will be explored in the sections that follow as well as examples that hindered support to teachers.



Diversity of Funding

Coordination across a portfolio of donors helped senior leaders at KECD and KTWG in Karen State to deliver services quickly to teachers during crises. This variety of funding streams allowed leaders to allocate resources effectively and respond flexibly to emergent needs. Senior leaders at KECD and KTWG collaborated with their donors to identify which agencies could provide funds for specific needs. In Karen State, some donors' contributions to KECD and KTWG are pooled, reducing monopolizing effects and increasing local negotiating power. If supporting a new pivot due to the crisis was not aligned with one donor's strategy, senior leaders from KECD and KTWG could pitch the response to other donors or identify if multiple donors could match funds to jointly respond. Interviewed senior leaders and donors supporting the TPD in the refugee camps both expressed the desire for additional donors to enable new possibilities for responding to emergent needs.

Regarding financial support for TPD in Karen State, interviewed donors emphasized the need for stronger coordination mechanisms, especially with the increased involvement of international donors in TPD. With many new programs and sources of external support, there is potential for overlap and undermining of efforts to strengthen the TPD system. A lack of coordination was viewed by one donor as potentially hindering TPD, especially if one-time support or capacity building is provided to only one specific context without considering the wider TPD system.

A mural depicting displacement of a Karen community as a result of conflict





A school for internally displaced children set up under the cover of trees for safety from airstrikes



Flexibility

Education in emergency necessitates prompt decision-making and the ability to rapidly reallocate funding when crises emerge. In both cases, senior leaders and donors were able to shift their programs, revise existing work plans, reallocate budgets, and advocate for additional modifications, albeit to different degrees in each case. Overall, there was more flexibility present in the Hpa-An District case study as donors and their corresponding government donors were viewed to be more willing to modify project targets and the associated budgets. Revision in this case still required negotiation and detailed planning. An example of flexibility cited by senior leaders at KTWG was the decision to increase the number of sites of in-service teacher training and decrease the number of participants. This modification was suggested due to the increase in travel risks and the unsafe conditions of some previously-used locations. This adaptation reduces the distance teachers need to travel for training and the smaller group size draws less attention. However, this modification costs more as it is less efficient compared to holding large workshops with a lot of participants. Despite the increased cost, donors were flexible and reallocated budget to reduce risk during TPD.

One donor supporting TPD in the refugee camps shared that in order to reallocate budget to new activities they were required to prepare a distinct comprehensive report, each of which takes months of negotiation to be approved. Senior leaders at KRCEE shared how they consulted with many stakeholders to determine solutions and even when decisions were made, the situation changed again. This was the case during the pandemic when COVID-19 health and safety policies were constantly changing. Determining the appropriate TPD response was difficult and was changed multiple times until a solution could be found.

Partnership Approach

A temporary learning space set up in response to nearby airstrikes in Duplaya District, October 2024
(source: CIDKP)

Taken together, the cases highlight the importance of a partnership approach consisting of mutually empowering relationships, reciprocal trust, an awareness of power imbalances, and a focus on shared growth and organisational development, as recommended by Featherstone (2017). Senior leaders in Karen State are largely the prime budget holders on their projects and as such are able to directly make procurement decisions in line with their internal policies. The trust expressed by donors was demonstrated by the degree of autonomy they gave KECD and KTWG to manage the funds of their programs. In the refugee camps, it was more difficult for refugee senior leaders to take on this role due to the constraints of the context and legal issues. Strengthened consultation mechanisms and support for developing a long-term strategy for refugee TPD were recommended.





A teacher delivers her lesson with students seated in a circle on a tarp on the forest floor



Long-term Scope

Donors and senior leaders in both cases emphasized the continued need for a long-term, whole-system approach to funding Karen TPD. Within Education in Emergencies (EiE) literature, the tension in funding timeframe is often referred to as the 'humanitarian-development divide' - criticizing humanitarian action's typical immediate, short-term emergency response timeframe compared to development efforts, which are generally longer-term and focus on sustainable progress (Duffield, 2014). Major donors in both contexts have been supporting Karen TPD for a substantial amount of time which has enabled each system to improve their TPD models. In the refugee camps, Save the Children Thailand's Basic Education Support towards Transition (BEST) project funded by the European Union, and the Preparing for Reintegration through Education and Participative Solutions (PREPS) project funded by Australian Department of Foreign Affairs, both began in 2013. The committed funds of both projects have remained largely stable which has provided a foundation for TPD in the refugee camps. KECD and KTWG have received funding consistently from trusted international non-government organizations over the past decade. Funding cycles for each context range from two to five years which has enabled senior leaders to plan for the future and think strategically about the direction and goals of TPD.

Senior Leaders in Karen State observed that more recent funding opportunities from new agencies often focus on one-time opportunities or short term improvements rather than adopting a much-needed multi-year strategy. While these initiatives aim to build capacity around specific targets, they can potentially disrupt overall efforts to strengthen TPD. It remains essential for senior leaders in Karen State to coordinate across donors and advocate for alignment to the long-term vision of Karen TPD.



Fund Education Personnel

The unfortunate reality is that providing education and TPD in contemporary Karen State and the refugee camps on the Thai-Myanmar border requires substantial risk and sacrifice. Teachers take a risk every time they enter their classrooms as Karen schools continue to be the target of airstrikes and attacks. Mobile teacher trainers take risks every time they travel, whether by foot, boat, motorbike, or truck to provide direct support to some of the hardest to reach schools in Karen State. School leaders and local education authorities are forced to manage education while at the same time coordinating emergency response. The opportunity cost of being a teacher, trainer, or school leader whether in Karen State or in the refugee camps has arguably never been greater. By working in schools or providing support to teachers, not only do these education professionals forgo the chance to financially save for their futures, but they also sacrifice opportunities for professional mobility. When asked to state the limitations of current TPD approaches, teacher drop out was viewed by senior leaders as the keystone which cascaded to all other challenges. Teachers leaving mid-year results in new teachers onboarding without training. This strains in-service training as it is difficult to support teachers with diverse levels of experience. For this reason, it is critical that funding focus on the personnel that make education and TPD possible: teachers, trainers, school leaders, and local education authorities.

A teacher crouching down to help a young boy write in S'Gaw Karen language



Teachers in both contexts working in low-resource schools without access to electricity. Children learn with only chalkboards, paper and pencils.

Interviewed donors in both cases were aware of this challenge and had allocated significant funding to the stipends of education personnel. More teachers in Karen State are now receiving stipends than ever before in KECD and KTWG's history. However, widespread conflict and displacement has led to an unprecedented rise in the number of teachers required to sustain education; most of them are still underpaid. Senior leaders in both cases expressed a strong desire to further decentralize TPD, however both cases possess the shared barriers of insufficient funding and a lack of capacity on the ground at school, township, district, and camp levels. When funding was available and when the context was more stable, each system focused resources on ground-level actors within their TPD systems including school leaders and district level authorities. This investment in ground-level leaders to enhance decentralized decision-making proved incredibly beneficial when crises struck as they were best-placed to make critical judgments regarding TPD. During disruptive times when funding is stretched due to emergency responses, these actors received less capacity development as the focus shifted to the foundational needs of teachers, students, and school communities.

To conclude, it should be noted that neither the refugee nor the TPD system in Karen State has been able to appropriately compensate or train all the teachers in their systems, even during times of relative stability. There continues to be numerous unmet needs in both systems, largely the result of underfunding. For TPD to be strengthened, the fundamental needs of education professionals must be met. In line with the perspectives and recommendations shared by interviewed participants, funding and external support for TPD should continue to be diversified, promote flexibility, adopt a partnership approach, be long-term and system-wide, and focus allocation of funding to the educational professionals making education possible.





Dozens of schools throughout Karen State have been the target of airstrikes.

VI. Key Recommendations

To Support Karen TPD Systems Designed for Disruption

A. Support a reunified system of Karen TPD

In line with the recommendations of Holland et al. (2022), donor governments should not distinguish between internally displaced persons, refugees, and indigenous education providers, but support all of these groups regardless of their geographic location. There is an opportunity to undo the separation of the Karen education system through improved cross-border donor coordination. In recent years, Karen TPD has adapted to meet the specific needs of the contexts on each side of the border with numerous synergies highlighted throughout this report. Future advocacy and funding should seek to support one system that spans the geographic border.

B. Ensure education professionals are adequately compensated

The underpinning challenge across both contexts is the high teacher attrition rate. To continue to professionalize teaching and maintain a resilient education system, it will be crucial to provide teachers with dignified extrinsic motivation.

In 2025 it is forecast that there will be 240 teachers in the refugee camps that will require financial support. Covering this shortfall will cost approximately \$100,000 USD.

KECD and KTWG attempt to ensure each teacher in Karen State is paid \$350 USD/year, however, the reality is that they are unable to pay all teachers this amount. The number of teachers in the Karen education system continues to grow to meet increasing demands. In Karen State, the estimated total needed to ensure all teachers receive a basic stipend is \$4.3M USD. In the 2024-2025 academic year there was a 25% shortfall for teacher stipends. This shortfall is expected to continue in 2025-2026 unless action is taken.



A crowded temporary learning space made of bamboo and tarps

C. Support further decentralized decision-making

The findings of this study highlight the importance of people on the ground during disruption as both the COVID-19 pandemic and conflict in Karen State have worked to restrict access. However, decentralization comes at a cost and is financially less efficient than centralized educational interventions. Supporting decentralization could involve specific funding allocation to ensure local educational authorities are sufficiently compensated and supported to take on greater roles related to TPD.

At the refugee camp level, the Office of Camp Education Entity (OCEE) requires IT resources to more effectively collect and analyze educational data. Needed laptops, internet access, and IT infrastructure would cost approximately \$4,000 USD per camp for a total of \$28,000 USD for all 7 Karen camps.

Similarly in Karen State, Township Education Officers require additional IT resources to enhance how educational data is coordinated and compiled. Laptops, internet access, and IT infrastructure would cost approximately \$7,500 USD for each of the 26 townships for a total of \$195,000 USD to cover all 7 districts.

D. Strengthen school-based TPD

A peer learning model could potentially address two challenges identified in this study at the same time: teachers feeling isolated, and engaging experienced teachers. If qualified, committed, and experienced teachers could be identified, peer mentorship would support further decentralization of TPD to the school level and provide needed support for onboarding new teachers, especially those starting mid-year. This would also prepare schools for future disruption by supplementing potentially reduced TPD. Developing a pre-service training summary manual and building the capacity of experienced teachers can enhance TPD at the school level. A funding model that provides a small financial incentive for experienced teachers would promote the retention of the most valuable resource of Karen schools: the teachers. Before this can happen, existing teacher trainers require support to ensure they are equipped to support the growing needs of teachers.

At the refugee camp level, there was a strong desire to reintroduce Advanced Skills Trainers (ASTs): school-based subject specialists that have additional roles and responsibilities for training. In the past there were approximately 2 ASTs at each of KRCEE's 45 schools and they received a slightly increased salary. Reintroducing ASTs would cost approximately \$13,000 USD for stipend top-ups and \$25,000 USD for specific training per year.

In Karen State, there are 56 district-level subject trainers and 8 central-level subject trainers which require intensive training to upgrade their content knowledge. It is recommended to bring all trainers to a central location for a 1-month intensive training. This would cost approximately \$40,000 USD.

Once the subject trainers complete the intensive training, the next step would be delivering the training to teachers in KECD's 50 high schools. The estimated cost for trainers to travel and deliver the training at high schools is \$40,000 USD/ year.

Similarly, mobile teacher trainers expressed desire to better meet the needs of teachers through advanced coaching and mentorship. Equipping 70 mobile teacher trainers with these skills through dedicated training, and supporting them to deliver it to teachers would require an estimated \$30,000 USD. The annual cost of each mobile teacher trainer is approximately \$6,000 USD which includes salary, travel expenses, printing, and personal materials. Additional mobile trainers are needed now more than ever to reach teachers in remote regions of Karen State.

E. Enable greater flexibility to respond to emergent needs

With many uncertainties and new risks, education in emergencies requires flexible responses and quick decision-making. To improve TPD in refugee camps, it is essential to secure another committed international donor or increase multilateral engagement with Thai government departments for financial support. This recommendation is not only because refugee TPD and stipends are critically underfunded but also because having multiple funding sources reduces monopolizing effects and increases local negotiating power. Expanded and robust networks are needed to meet the diverse needs of refugee educators and the systems that support them.

F. Review TPD curricula in light of contemporary challenges

The contemporary crises introduced many new challenges which have fundamentally changed classroom dynamics in both contexts. Now, classes often contain more learners with a greater diversity of language proficiencies in Karen languages and Burmese. Numerous interviewed teachers shared how these challenges have caused them to feel anxious, limited their creative potential, prevented them from providing individualized support to students, and left them feeling overwhelmed. It is recommended to review the TPD curricula and potentially include topics such as:

- Strategies for teaching large classes
- Approaches to support students unfamiliar in the language of instruction
- Effective multilingual pedagogical approaches
- Low resource teaching strategies
- Supporting students' socio-emotional needs

A new initiative which seeks to address this and the concern for teacher recognition is the development of three Co-designed TPD courses with the support of University College London and The Inclusive Education Foundation. The first course, Transforming Education in Challenging Environments: Teaching in contexts of mass displacement, is offered in English, S'Gaw Karen, and Burmese, and will be offered as in-person workshops by trainers from KRCEE, KECD, and KTWG. Teachers will receive a certificate from UCL for each course they complete and those who complete the course in English will have the opportunity to continue to University of London's Post Graduate Certificate of Education. Establishing this pathway for teacher recognition requires approximately \$250,000 USD.

VII. References

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School bells at Karen schools made of recycled metal, including a wheel rim, an I beam, a truck leaf spring, and an artillery shell casing