



CLIMATE CHANGE, YOUNG WOMEN AND GIRLS:

VULNERABILITY, IMPACTS AND ADAPTATION IN NORTHERN THAILAND

Full report conducted by Plan International Thailand in collaboration
with the Stockholm Environment Institute (SEI) Asia Centre in Bangkok,
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CONTEXT

The report presents findings of research conducted in the Chiang Rai and Chiang Mai provinces in Northern Thailand, conducted by Plan International in collaboration with the Stockholm Environment Institute as part of an International Climate Initiative (IKI) project.

As mountainous regions, the provinces rely heavily on agriculture for livelihoods and food consumption. The communities, predominantly of ethnic and linguistic minorities, are settled in upland mountain agro-ecosystems and are often water and natural-resource poor. As such, these provinces are highly vulnerable to impacts of climate change, notably shifts in temperature and precipitation.

Vulnerability to climate change, defined by the Intergovernmental Panel on Climate Change (IPCC) as the propensity or predisposition to be adversely affected by climatic risks and other stressors (IPCC, 2012), is socially differentiated and emerges from the intersection of different inequalities and uneven power structures. Despite research into some of the impacts and vulnerabilities of children in this context, there has been a lack of research on the intersectionality of girls and young women's climate vulnerability, particularly in ethnic minority contexts. This study was designed to address this crucial knowledge gap. It does so by decisively employing an intersectional approach to better understand the varying climate risks, vulnerabilities, adaptation and resilience measures among young women and girls in Northern Thailand whose experiences are not only influenced by age and gender, but also by poverty, legal status, ethnicity, language and education.

METHODOLOGY

Researchers first conducted a literature review, paying attention to themes such as climate change and children, and climate change and gender. This review identified existing findings and knowledge gaps and, informed by Plan International's climate change framework, the research design focused on the following research questions:

Research Questions

- 1 What are the climate change risks faced by girls and young women in ethnic and linguistic minority communities in Northern Thailand?
- 2 What are the underlying vulnerabilities and impacts of climate change for girls and young women in ethnic and linguistic minority communities in Northern Thailand?
- 3 What adaptation measures are building the resilience of girls and young women in ethnic and linguistic minority communities in Northern Thailand?

The study employed qualitative research methods through key informant interviews (KIIs) and focus group discussions (FGDs) for primary data collection. This research consisted of 26 KIIs which were conducted with young women aged 15-30 and school teachers. 17 FGDs were carried out with; school children aged 10-15; young women aged 15-30; and village child-centred climate change adaptation (CCA) committees, which included both men and women. Data for this study was collected from six schools and six villages across nine different locations in the districts of Mae Fah Luang (Chiang Rai province), Fang and Mae Ai (Chiang Mai province) involving a total of 157 participants. The criteria for the selection of research participants was based on age, gender, voluntary willingness to participate, and familiarity with Plan International programming and staff.

Ethical considerations

Ethics approval was granted by the Global Hub prior to data collection. Researchers obtained informed consent from all participants and ensured their confidentiality and anonymity. To ensure ethical data collection from children, Plan's Child Protection Policy and SEI's research code of conduct was strictly adhered to. Measures were also taken to ensure participants were free from harm and that no stress was caused to any of the children.

FINDINGS

Gender roles and power relations

Gender roles were noted as distinct in most communities, whilst the role of many women was considered to be shifting to include additional responsibilities. Women were increasingly shown to be involved in both income generating activities, including farming, in addition to carrying out household responsibilities such as domestic labour and childcare. Simultaneously handling farming and childcare responsibilities was demonstrated to have increased complications for young women and women without childcare support. Such pressures were shown to result in increased dependency on children, primarily girls, to support in household tasks and farming activities.

A double burden of domestic and non-domestic labour became apparent, which posed implications for girls' schooling and education. Involvement in farming activities was also shown to increase exposure to climate extremes, such as heat and rain. In addition, women and girls were considered to be vulnerable to further impacts of climate change through reduced crop yields, which may place greater burden on women to maintain and cultivate dying or damaged crops.

Despite the increasing level of work for women, men were still found to hold greater decision-making power at household and community levels. While community CCA meetings were primarily attended by women, as village heads were male, women tended to speak out less than men on issues which impacted their daily tasks such as sourcing water.

Climate change risks

The report described the types of climate change risks present in the study locations. Six climate-related risks were identified by informant groups (CCA committees and young women) and school informants (teachers and school students) in each village, these included; drought/water scarcity, storm, flood, landslide, fire and extreme temperature.

The most commonly identified risk was drought/water scarcity, whilst the least commonly identified risks included forest fires and extreme temperature.



Mother and son from Aka community help construct dam in mountainous northern area of Thailand.

(© Plan International)

Vulnerability and impacts

Water security

Water access and security in the context of climate change is a major challenge faced by all communities, to varying degrees. In periods of drought and acute water insecurity, young women in nearly all target villages reported increased challenges in accessing water. Differential impacts among young women of different socioeconomic statuses and positioning in villages was identified, specifically in relation to inequitable distribution of water.

Water security: specific implications for young women and girls

- Acute water insecurity impacts on young women and girls in terms of household and job roles, education, health, food and nutritional security, livelihoods, and migration.
- The burden of water insecurity falls predominantly on women, who are largely responsible for sourcing water for household consumption and are sometimes required to travel to find alternative sources (e.g. rivers) on a daily basis.
- Girls are more likely than boys to support their mothers in sourcing water and assisting with household chores, and the time burden and associated risks increase during times of scarcity.
- At school, water consumption is also reduced during times of scarcity, which can have sanitation and hygiene impacts, with girls' facing additional sexual reproductive health and rights (SRHR) risks.

Livelihoods

Across households involved in the study, agricultural labour was identified as the primary source of livelihood. Both adults and children recognised the negative impacts climate change has had on farming livelihoods with crops damaged by storms, heavy rain, and heat stress, in addition to reduced water availability during droughts for irrigation. These impacts have greatly affected household income and has resulted in seeking alternative sources of income in sectors such as construction and service industries.

Livelihoods: specific implications for young women and girls

- Reduced/insufficient household income due to climate change increases the pressure on women and children to support in generating income, which for women engaged in domestic labour doubles their responsibilities and can compromise children's education and well-being.
- During rainy season, floods, storms and landslides can often block access roads, damage crops and kill livestock; reducing yields and revenue.
- During times of water scarcity and extreme temperatures (i.e. heat stress) crop quantity and quality is compromised, reducing yields and revenue.

Food and nutritional security

Across the villages, food and nutritional security is based on households growing their own food and purchasing supplementary goods. However, due to fluctuating prices and unstable incomes, food security often cannot be maintained year-round. Therefore, schools also serve as important providers of food.

Dry seasons typically see a decrease in income through reduced yields as a result of lack of water and extreme heat. Decreases in food supplies exacerbates girls' vulnerability because in these contexts they are often the last member of the household to eat, and the first to go without food.



Plan staff member helps with dam construction by Aka people as part of training exercise.

(© Plan International)

Food and nutritional security: specific implications for young women and girls

- During times of water scarcity, when household incomes are typically down and food prices are inflated, less money is spent on nutritious foods, particularly meat and vegetables.
- At the same time, a lack of water means a reduced yield from household gardens (i.e. rice and vegetables).
- During the rainy seasons, floods, storms and landslides can often damage crops grown in communities and schools.
- Some children, particularly poorer children from migrant families, show signs of being underweight and malnourished, more so during times of water scarcity.

Health

The different health risks which the communities face primarily relate to water, sanitation and hygiene (WASH), sexual and reproductive health and rights (SRHR), air pollution and diet and nutrition, with these risks likely to be exacerbated by climate change.

Contamination from pesticides and insecticides run-off from nearby farms were also identified as a main cause of water contamination, which limits community access to secure water. Girls and young women are also likely to be most vulnerable to water contamination due to exposure while carrying out water-dependent household chores such as washing clothes and sourcing water.

Health: specific implications for young women and girls

- Generally higher sanitation and hygiene risks during dry season water shortages as less water for bathing is available.
 - During times of water scarcity, girls and young women face SRHR related risks due to reduced water supply for sanitation and hygiene.
 - During times of water scarcity, due to a lack of water at home, young women and children bathe and wash clothes in contaminated rivers, causing skin infections.
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Education

The research revealed school attendance across villages varied, with some villages reporting that not all children under the age of 12 were attending elementary school. Access to further education among ethnic minority communities without citizenship and an identity card is often difficult. Disruption of education, through drop-out or absenteeism, may be attributed to economic migration or to providing support to parents on farms and with income generation. For girls, participation in higher education in some parts of the region is linked to early marriage and parenthood in teenage years, in addition to dropping out to support families with income-generating activities.

Education: specific implications for young women and girls

- Girls occasionally miss several days of school due to extreme climate events.
 - During the rainy season, floods, storms and landslides can make schools harder to reach for girls, boys and teachers.
 - Girls not attending secondary school and further education is linked to marriage and/or motherhood in teenage years
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Migration

In Chiang Mai and Chiang Rai, economic migration was linked to decreasing agricultural productivity due to climate change. High rates of out-migration of young, married men, creates a shortage of male labour, particularly on farms, increasing women's responsibilities for paid labour, unpaid household labour and unpaid male village labour. This increase in responsibilities highlighted a reliance of mothers on their children, particularly girls, to support in these tasks.

Migration: specific implications for young women and girls

- Economic migration is being driven by declining incomes from agriculture, partly associated with recent periods of water scarcity and impacts on crop yields and revenues.
 - While children may not migrate themselves, the impacts of migration are notable: disruption to education, emotional distress, lack of support networks, and increase in household and caregiving responsibilities.
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ADAPTATION

In all communities involved in the study, a lack of sufficient knowledge on the causes of climate change and how to adapt to it was evidenced. Despite this, it was found that some actions had been taken to adapt to the changing climate through crop diversification and receipt of some external support provided by the government and municipalities to farmers.

Among many young women, differing levels of awareness of climate change, risks, impacts and ways to adapt were identified. This suggested an inconsistent distribution of climate change learning opportunities.

Many young women, however, expressed an interest in learning more about climate change including issues such as how to address water shortages during droughts, potential health consequences of climate change, and the impacts of climate change on crops. They also identified barriers they may face in future learning and in shaping adaptation strategies such as time investment required for attending trainings and childcare responsibilities.

A greater level of awareness of climate change, and confidence in talking about climate change, was illustrated among girls and boys. In all schools, however, girls showed more interest than boys in learning about climate change and girls were found to share more climate knowledge with their families.

Some adaptation training topics developed jointly by students and teachers, and by the school principal and Plan International Thailand project teams:

- Building check dams to prevent erosion
 - Planting trees and grass to protect from landslides
 - Practicing water conservation
 - Installing sandbags as flood defences
 - Growing vegetables in school gardens for the school canteen to cope with rising food prices in markets
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Aka community in northern Thailand learn how to build dam.
(© Plan International)

RECOMMENDATIONS

The report offers recommendations for more targeted action on climate change that builds the resilience of young women and girls, some of which are outlined below:

- 1 Provide girls with access to education to support climate action and participation** by designing gender-sensitive education programmes on climate change for girls and boys, including those of ethnic minorities, to develop a shared understanding of specific climate risks they each may face now and in the future.
- 2 Empower young women and girls towards leadership in climate action** by creating safe spaces for young women and girls, including those from ethnic minorities, where they become empowered to express their own opinions and can build self-esteem to advocate for change and future leadership.
- 3 Support young women and girls towards sustainable livelihoods that build resilience through income-generating opportunities, particularly for young mothers, in addition to developing green skills and vocational training, with provision for minority languages.**
- 4 Ensure social safety support nets for young mothers and girls affected by migration.** Research social and economic needs of families affected by migration, specifically those who have been “left-behind” and explore the potential of welfare systems and/or different ethnic groups’ rural social safety nets to ensure female-headed households are better supported.
- 5 Actively respond to young women’s and girls’ needs in natural and water resource planning.** Ensuring the needs and uses of women and girls, including those from ethnic minorities, are actively considered and included at local level planning, and ensuring the equitable distribution of resources with decisions made beyond traditional power structures.
- 6 Design interventions that ensure young women and girls are able to lead healthy lives in the face of climate change.** Affordability and accessibility of safe nutritious foods and meals must be ensured and women and girls’ knowledge must be increased on health impacts of climate change, including SRHR issues, and access for all to health services.

“ACCESS TO FURTHER EDUCATION AMONG ETHNIC MINORITY COMMUNITIES WITHOUT CITIZENSHIP AND AN IDENTITY CARD IS OFTEN DIFFICULT.”



Malinee, an ethnic Akha 12-year-old girl, reads a textbook on a bamboo bench in Northern Thailand.
(© Plan Thailand)

FUTURE USE OF FINDINGS

As the research area of climate change and migration continues to emerge, the report suggests further study and evidence is required to understand relationships between migration and climate change, with a focus on gendered causes and implications of migration.

At the CO level, some of the ways in which findings from this research have been used include:

- To inform gender-inclusive perspectives in the development of new child-centred climate change adaptation and child-led school safety projects in Thailand, targeting indigenous and marginalised children.
- To advocate for gender responsive community-based adaptation (CBA) initiatives among local NGOs and local governments in Thailand.
- To support the dissemination of key messages from the 4CA project, which includes the impacts of climate change on girls and young women, to regional research communities.

Read the full report [here](#).

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