POLICY REPORT
NOVEMBER 2025

AHEAD OF HARM:
INTEGRATING GENDERED EARLY WARNING INTO ASEAN'S WPS REGIONAL PLAN OF ACTION

TAMARA NAIR AND VISHALINI SURESH
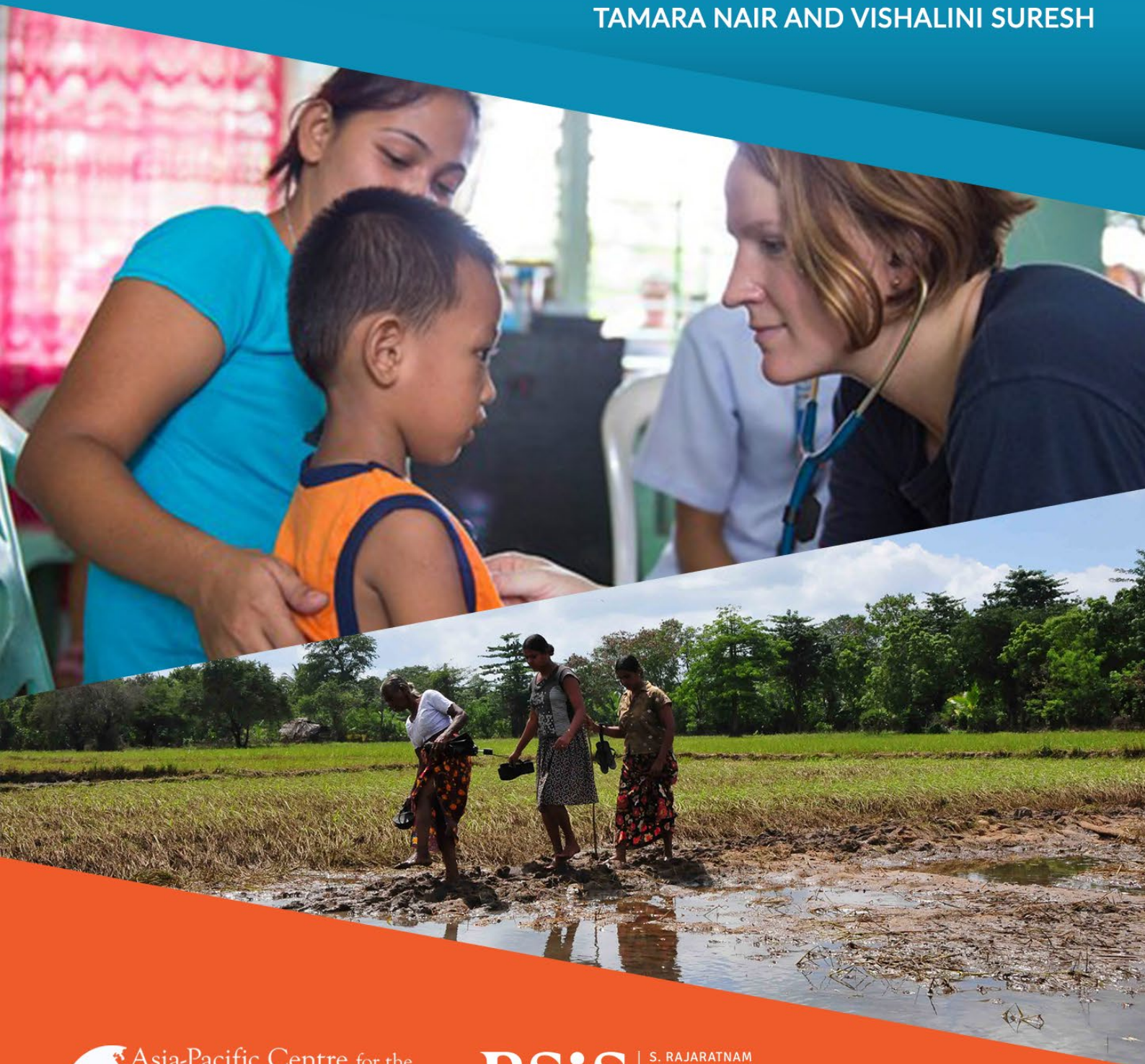
Asia-Pacific Centre for the Responsibility to Protect

RSiS S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES
Nanyang Technological University, Singapore

TABLE OF CONTENTS

Executive Summary

Gendered Early Warning Systems, or GEWS, are organised tools and processes that detect emerging risks by explicitly tracking, analysing and responding to risks as they affect women, girls and gender-diverse people. GEWS send timely alerts to authorities and communities so they can act before serious harm occurs. This report argues that integrating gendered early warning systems into the ASEAN Women Peace and Security Regional Plan of Action (WPS RPA) is essential for preventing Gender-based Violence (GBV), strengthening protection, preventing harm, and enhancing the overall well-being of women and girls.

Currently, ASEAN's Early Warning Systems (EWS) focus on environmental hazards, physical threats, and broad indicators of instability. They rarely capture gender-specific signals such as rising domestic violence, reduced access to health services, restricted (or in some cases, increased, forced) mobility, increased care responsibilities, or patterns of online abuse. These conditions often emerge early in the crisis and can indicate deeper stresses within communities. Without capturing these indicators, responses are ineffective, and the protection needs of women and girls remain unmet. The WPS RPA offers a timely opportunity to close these gaps. Its focus on prevention, protection, participation of women, and institutional readiness aligns closely with the purpose of GEWS. Embedding gender into existing ASEAN mechanisms will improve coherence across sectors and strengthen regional governance.

Over the past decade, ASEAN Member States have expanded efforts to advance the Women, Peace and Security (WPS) agenda. While notable progress has been made across ASEAN's political-security and socio-cultural pillars, early warning capacities within the four WPS pillars, *Prevention, Protection, Participation, and Relief & Recovery* remain underdeveloped from a gender perspective. The idea that crises are gender-neutral obscures the differentiated needs women have which are shaped by their caregiving roles, labour divides, social norms, mobility constraints and digital exposure.

The WPS RPA's orientation towards prevention, protection, participation of women and strengthening institutional capacity is well-aligned with the purpose of GEWS. GEWS will help highlight insecurities within communities such as gender-based violence, unequal access to essential services, exclusion from decision-making, and emerging digital threats. These indicators appear before broader instability becomes visible. This approach supports ASEAN's aspiration for a people-centred regional community under the ASEAN Community Vision 2045, where meaningful participation is considered essential to peace and stability.

Early warning is not only technical in nature—it is social and political, shaped by whose knowledge is collected and whose voices are included. In many Southeast Asian contexts, women's organisations, community health workers, and local civil society actors hold early insights into emerging risks, yet their contributions remain insufficiently integrated into national systems.

This report[1] discusses how GEWS can be operationalised across three major vulnerable situations: natural hazards, the digital ecosystem, and health crises and explores how these crises could lead to complex emergencies, which create further instability in the region. Integrating GEWS into the ASEAN WPS RPA offers a practical path for strengthening gender-responsive early warning, improving protection outcomes, and enhancing regional resilience.

GEWS and the Protection of Women and Girls in Disasters

Southeast Asia is one of the most disaster-prone regions in the world, experiencing recurrent typhoons, floods, earthquakes, droughts, and climate-related hazards.[2] These events disproportionately affect women and girls due to structural inequalities that influence mobility, access to information, caregiving roles, and exposure to violence.[3] Gendered vulnerabilities in disasters are well-documented. Women often have limited access to timely warning messages because information channels are not adapted to their daily routines or levels of digital access. Women also have mobility constraints that are driven by their caregiving responsibilities, cultural norms, or the absence of safe evacuation transport, further hindering their ability to respond to warnings. Once displaced, women face heightened risks of GBV, including intimate-partner violence, harassment in shelters, and exploitation during aid distribution.[4] These risks rarely feature in national early warning indicators, which prioritise the intensity of the disaster or environmental triggers over social and gendered dimensions of vulnerability.

---

[1] This Policy Report is based on a larger Research Report by the authors: *Ahead of Harm: Integrating Gendered Early Warning into ASEAN's WPS Regional Plan of Action,* (November 2025). The Research was kindly funded by the University of Queensland, Australia.

[2] UNISDR (United Nations International Strategy for Disaster Reduction) and World Bank. 2010. *Synthesis Report on Ten ASEAN Countries Disaster Risks Assessment: ASEAN Disaster Risk Management Initiative.* December. Available at: https://www.unisdr.org/files/18872_asean.pdf

[3] AICHR (2015) *Women in Natural Disasters: Indicative Findings in Unravelling Gender in Institutional Responses: An ASEAN Intergovernmental Commission on Human Rights (AICHR) Thematic Study.* AICHR. Available at: https://aichr.org/wp-content/uploads/2019/01/Adopted_AICHR_Thematic_Study_Women_in_Natural_Disasters_26012018.pdf.

[4] Center for Disaster Philanthropy (2020) Women and girls in disasters. Center for Disaster Philanthropy. Available at: https://disasterphilanthropy.org/cdp-resource/women-and-girls-in-disasters/
National Sexual Violence Resource Center (NSVRC) (2021) Sexual violence in disasters. NSVRC. Available at: https://www.nsvrc.org/sites/default/files/2021-11/sexual_violence_in_disasters_final508_0.pdf.

The ASEAN Agreement on Disaster Management and Emergency Response (AADMER) provides a strong foundation for integrating GEWS, but gender remains peripheral in regional early warning protocols. The WPS RPA can fill this gap by aligning its Protection and Prevention pillars with AADMER's priorities, creating a cross-sectoral mechanism for integrating GEWS across ASEAN.

GEWS could contribute to the following three areas in disaster contexts:

1. Identifying the specific needs of women and girls in the community prior to and in the early onset of disasters;
2. Strengthening anticipatory action which allows for earlier deployment of resources; and
3. Enhancing protection outcomes, particularly for women and girls during evacuation and management of evacuation centres/shelters.

Embedding GEWS into disaster governance would significantly improve ASEAN's ability to safeguard vulnerable communities and uphold WPS commitments in times of increasing climate risk.

GEWS in the Digital Ecosystem

The rapid expansion of digital connectivity has increased women's exposure to online violence, including cyberstalking, doxxing, manipulated imagery, gendered disinformation, and online harassment during periods of social or political tension.[5] These harms constitute early warning signals of wider insecurity. They often escalate before, during, or after crises, especially when households face stress. Political discourse can then become polarised, or digital misinformation intensifies.

Online violence against women remains overlooked as a security issue, partly because the digital sphere is often considered gender-neutral. However, the design, governance, and regulation of digital platforms frequently fail to anticipate gendered patterns of harm. Women's limited control over digital spaces, unequal access to secure technologies, and the absence of gender-responsive safeguards increase their vulnerability. In many ASEAN Member States, women have less digital literacy, lower participation in cybersecurity-related sectors, and

---

[5] Amnesty International (2024) Online Violence. Amnesty International. Available at: https://www.amnesty.org/en/what-we-do/technology/online-violence/ and UNFPA (2025) 7 things you need to know about online gender-based violence and UNFPA Asia Pacific. Available at: https://asiapacific.unfpa.org/en/news/7-things-you-need-know-about-online-gender-based-violence.

reduced awareness of reporting mechanisms for digital abuse – all factors that diminish their capacity to respond to emerging threats.[6]

Analyses show that spikes in online harassment, misinformation targeting women, or gendered hate speech often precede physical threats and real-world violence.[7] Thus, the digital ecosystem functions as a critical site of early warning, where gendered patterns of abuse may signal deeper social tensions or impending instability. However, most cybersecurity strategies treat online GBV as an individual or criminal justice issue, rather than a structural risk factor requiring integration into broader EWS.

ASEAN has taken steps to strengthen regional cybersecurity cooperation, but these initiatives seldom incorporate gender considerations. The ASEAN Digital Masterplan and associated frameworks focus primarily on connectivity, digital skills, and economic innovation. Integrating GEWS into these frameworks would require the development of indicators that track gendered forms of digital harm, including:

- frequency and patterns of online harassment;
- targeted misinformation or coordinated digital abuse;
- online threats linked to political participation, and
- emerging risks on platforms with high youth engagement.

Women's organisations, digital rights groups and community networks can often identify harmful patterns long before they become visible in national statistics. Incorporating these actors into EWS will improve data quality, capture the nuances of gendered digital risks, and support the design of interventions that prioritise the safety and rights of women and girls online.

The Need for GEWS during Health Crises

Health crises can worsen pre-existing gender inequalities by increasing caregiving burdens, disrupting access to sexual and reproductive health services, and elevating the risk of domestic violence.[8] These patterns often emerge before public health systems activate

---

[6] Data-Pop Alliance (2021) Women and ICT access: Bridging the digital divide for disaster resilience. Data-Pop Alliance. Available at: https://datapopalliance.org/women-and-ict-access-bridging-the-digitial-divide-for-disaster-resilience/ and ASEAN (2025) ASEAN Digital Masterplan 2025. Jakarta: ASEAN Secretariat. Available at: https://asean.org/wp-content/uploads/2021/09/ASEAN-Digital-Masterplan-EDITED.pdf.

[7] Posetti, J. and N. Shabbir (2022) The Chilling: A global study of online violence against women journalists. ICFJ with UNESCO. Available at: https://www.icfj.org/sites/default/files/2023-02/ICFJ%20Unesco_TheChilling_OnlineViolence.pdf and Edstrom, M. (2016) 'The Trolls Disappear in the Light: Swedish Experiences of Mediated Sexualised Hate Speech in the Aftermath of Behring Breivik', International Journal for Crime, Justice and Social Democracy, 5(2), pp. 96–106.

[8] UN Women (2020) Policy brief: The impact of COVID-19 on women. New York: UN Women. Available at: https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Policy-brief-The-impact-of-

emergency response operations, underscoring the importance of GEWS in detecting early signs of deterioration in women's health and safety.

Women constitute a significant proportion of frontline and community-based health workers. This places them at heightened risk during outbreaks—not only of infection, but also of economic hardship, psychological distress, and social stigma.[9] Despite their central role, the contributions and vulnerabilities of women health workers are frequently overlooked in EWS. Their insights often reveal early shifts in community health behaviours and women and girls' access to their healthcare needs. Hence, their role is vital for identifying emerging threats.

Integrating GEWS into health crisis preparedness frameworks would require governments and the region to strengthen gender-disaggregated data collection, enhancing collaboration with women's health organisations, and expanding surveillance to capture indicators such as:

- disruptions to maternal health and reproductive health services;
- increases in caregiving responsibilities;
- risks of domestic violence that increase during crises;
- shortages of women-dominated health workforce sectors, and
- barriers to accessing digital health tools.

ASEAN's existing frameworks, including the ASEAN Post-2015 Health Development Agenda, offer entry points to incorporate GEWS into regional health surveillance. This would improve protection for women during health crises while reinforcing the WPS agenda's emphasis on the interconnectedness of human security and peace-building.

Complex Emergencies

Southeast Asia is increasingly confronted with complex emergencies. These are situations where several hazards occur at the same time, such as climate-related disasters happening alongside disease outbreaks, or political instability occurring together with widespread digital misinformation and economic strain. These environments create compounding risks for women and girls, who often experience overlapping vulnerabilities across physical, digital, and health spheres.

COVID-19-on-women-en.pdf and UN Women (2021) The Shadow Pandemic: Violence against women during COVID-19. UN Women. Available at: https://www.unwomen.org/en/news/in-focus/in-focus-gender-equality-in-covid-19-response/violence-against-women-during-covid-19.

[9] Pam Belluck (2020) 'Women on the Front Lines of Coronavirus Face Greater Risk', The New York Times, 12 March. Available at: https://www.nytimes.com/2020/03/12/us/women-coronavirus-greater-risk.html.

Traditional EWS are not equipped to capture these layered risks. Technical models may detect storms or floods, but they rarely identify vulnerabilities that arise from social conditions, such as misinformation directed at women, heavy caregiving responsibilities, or rising domestic violence. These less visible forms of insecurity tend to escalate quickly during overlapping crises.[10] GEWS offer a more comprehensive approach by recognising that gender-related risks often appear early in a crisis and can signal broader patterns of state fragility and instability.

During complex emergencies, multiple structural barriers intensify at the same time. Restricted mobility, unequal access to information, the burden of care work, insecure employment, and exposure to digital abuse all become more pronounced. During disasters, for example, women may have limited access to safe evacuation routes at the same time that misinformation or online harassment increases. In health crises, economic pressure and movement restrictions can worsen violence in the home while limiting access to help. When these trends occur together, early warning systems that do not include gender-specific indicators fail to capture the full severity of the situation.

GEWS and the ASEAN RPA

The ASEAN WPS RPA is well-positioned to elevate GEWS across different sectors. With its focus on prevention, protection, and inclusive security, the RPA can act as a regional mechanism that links gender-related indicators across climate, digital, health, and wider human security areas. A coordinated approach that draws on all sectors would help ASEAN Member States anticipate the effects of converging crises and improve the consistency of responses across agencies.

To move from commitment to implementation, ASEAN will need to operationalise gendered early warning systems through existing institutional structures. This includes establishing shared data standards, collecting consistent gender-disaggregated indicators, and creating ways for women's organisations and community partners to contribute to early warning processes at every level. Integrating gendered early warning systems into ASEAN's regional mechanisms will strengthen resilience, improve state performance, and ensure that the WPS agenda responds to the real conditions of insecurity faced by women and girls in Southeast Asia today.

---

[10] UNHCR (2025) Coordination in Complex Emergencies. UNHCR. Available at: https://www.unhcr.org/publications/coordination-complex-emergencies and Kruczkiewicz, A. et al. (2021) 'Compound Risks and Complex Emergencies Require New Approaches to Preparedness', Proceedings of the National Academy of Sciences 118(19): e2106795118. https://doi.org/10.1073/pnas.2106795118.

Recommendations

The following recommendations set out key areas for strengthening the integration of GEWS within the ASEAN WPS Regional Plan of Action and related regional mechanisms. They are organised across regional, national, and local levels, and structured thematically to reflect the different crisis situations that arise in the region.

Cross-cutting Priorities

1. *Strengthen political commitment and institutional capacity to integrate GEWS across ASEAN frameworks.*
   - Including GEWS in existing frameworks (e.g. AADMER, ASEAN Health Cluster and ASEAN Cybersecurity Cooperation Strategy) leverages on ASEAN's institutional strengths and reduces duplication.

2. *Establish robust data governance standards, including privacy, protection, and consistent disaggregation.*
   - These standards protect vulnerable communities, particularly in complex emergencies. Obtaining consistent data improves efficiency and efficacy prior, during and after crisis situations.

3. *Promote cross-sector coordination by engaging state institutions, civil society, and private/tech actors.*
   - Stronger coordination among government agencies, women's organisations, humanitarian actors, and technology companies improves the detection of gendered risks and ensures early warnings translate into timely, appropriate responses.

4. *Mainstream gender analysis throughout early warning systems design, implementation, and governance.*
   - Formal partnerships should be established at the regional and national level with women-led organisations, digital rights groups, and community health networks, recognising their role in identifying early signals of harm. Training on GEWS should be provided for all actors involved in early warning to strengthen understanding and interpretation of gendered risk factors.

5. *Invest in sex-, age-, and disability-disaggregated data, ensuring culturally relevant and life-stage information is retained.*

    - ASEAN should support Member States in improving sex- and age-disaggregated data, integrating it into EWS and encouraging cross-sectoral data interoperability.

6. *Support community-level monitoring by engaging women-led organisations and strengthening participatory local mechanisms.*

    - Warning messages should be disseminated through multiple platforms - community radio, SMS alerts, digital apps, and local women's networks - to ensure timely and accessible information. Structural barriers such as unequal digital access, limited mobility, and care burdens must be addressed to enable women's meaningful engagement in early warning processes.

7. *Prioritise community-centred pilot projects that integrate women's participation by design.*

    - Local women's groups, youth organisations, and community leaders should be empowered to collect, analyse, and communicate gendered risk information, ensuring that GEWS reflect community realities and support responsive action.

Sector-specific Priorities

Climate Security

Advancing climate security requires centring women as decision-makers, knowledge holders and first responders. Policies must guarantee their equal participation in disaster governance, finance gender-responsive adaptation, and protect rights in relocation and recovery. Drawing on women's local expertise strengthens early-warning systems, reduces conflict risks and builds resilient communities to climate shocks. The following broad recommendations need to be put in place to ensure these happen.

- Ensure women's representation in disaster governance. This would include encouraging women to set the agenda and prioritise areas of importance.
- Strengthen gender-sensitive preparedness, communication, and shelter systems and in some instances, formalising (and funding) women's formal and informal on-the-ground networks.

- Collect data on gendered disaster impacts to inform recovery and create women-led systems of data collection/intepretation.

Digital Security

Advancing digital security requires women shaping early warning systems that monitor online abuse, disinformation and threats. Investing in women-led digital literacy, secure reporting channels, and partnerships with platforms enables faster detection, context-aware analysis and survivor-centred responses, strengthening trust, accountability and collective resilience in virtual and offline spaces across ASEAN states. The recommendations below are initial steps to be taken to ensure that the protection, prevention, participation pillars of WPS are met in digital security.

- Integrate online GBV prevention into regional cybersecurity masterplan and strategies.
- Address gender-differentiated digital risks and enable safe participation of women in the digital ecosystem through legislative mechanisms as well as community education.
- Build a regional database on digital harms affecting women to be aware, and to address extra-territorial cases of online violence against women.

Health Security

Gendered early warning systems must track women's health and care burdens, recognising them as frontline health actors. Integrating gender-responsive indicators, services, and mental health support into crisis planning improves risk detection, reveals hidden vulnerabilities, and strengthens timely, targeted responses that protect women and their communities before, during, and after crises.

- Mainstream gender, especially gendered health indicators, into crisis planning and preparedness.
- Address unpaid care burdens and strengthen gender-sensitive health services through greater participatory planning at community-level.
- Recognise women as central actors in health systems and include women in national task forces addressing public health concerns.
- Prioritise women's mental health during and in the aftermath of crises situations.

Complex Emergencies

Complex emergencies where conflict, climate shocks, displacement, and health crises intersect, intensify risks of violence, exploitation, and deprivation for women and girls.

Gendered early warning systems help by detecting gender-specific vulnerabilities early, tracking intersecting risks, and enabling timely, targeted interventions that prioritise protection, essential services, and women's leadership in crisis response.

- Identify layered vulnerabilities in overlapping crises by developing inter-sectoral agencies/committees to identify and share data on various vulnerabilities faced by women and girls in different crisis situations.
- Develop GEWS that track GBV, displacement, and access to essential services by including women's groups, religious organisations and other local actors in identifying potential risks.
- Ensure women's meaningful participation in humanitarian planning and recovery

    - by institutionalising women's leadership in disaster committees, guaranteeing a place for women in relief and recovery – including designing evacuation plans, relief distributions, determining contents of hygiene kits etc.
    - by creating recovery programmes with diverse women's groups to shape the type of assistance and support, including economic and livelihood support, post crisis.

Conclusion

Integrating GEWS into the ASEAN WPS Regional Plan of Action offers a critical opportunity to ensure that women's specific needs are recognised and addressed across crisis contexts. By recognising gendered risks as early indicators of instability, ASEAN Member States can enhance governance in the region, be more inclusive, and better support women, and ensure that the WPS agenda remains responsive to the realities of Southeast Asia's evolving security landscape. GEWS bring efficiency, relevance, and inclusivity to early warning systems— qualities essential for protecting peace, stability, and human security in a region facing increasingly complex and interconnected threats.

About the Authors

Dr Tamara Nair is Senior Associate Fellow at the Centre for Non-Traditional Security Studies (NTS Centre) at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University. She is concurrently appointed as Coordinator of Projects (Women in ASEAN Community) in the Office of the Executive Deputy Chairman, where she supports the management of special projects and activities relating to women in the region.

She graduated from the National University of Singapore (NUS) with a Bachelor's Degree in Political Science and Geography and went on to train at the National Institute of Education (NIE). She obtained a Masters in Environmental Management, a Graduate Diploma in Arts Research and a PhD in Development Studies from the University of New South Wales in Sydney, Australia. She possesses a Professional Certificate in Project Management by the Institute of Engineers, Singapore and Temasek Polytechnic. She is also the coordinator of centre publications and Research Integrity Officer for RSIS, as well as the Head of the Research Integrity and Data Management Unit of the School.

Dr Nair's current research focuses on issues of power and the biopolitics of labour and technology, and the Women, Peace and Security (WPS) agenda in the region. She represents Singapore in the ASEAN Women for Peace Registry (AWPR) and is also the representative for Nanyang Technological University for the ASEAN University Network on Human Rights and Peace Education. As part of UN Women's "Empowering Women for Sustainable Peace", Dr Nair was named one of 21 inspiring peace builders, promoting gender equality and sustainable peace in the region. She has published in Development Studies journals, writing on marginalised communities and sustainable development, issues of gender, and power and subject creation.

Ms Vishalini Suresh is a Research Associate at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore. She holds a Master of Arts in International Relations from the Australian National University (ANU), Australia, and a Bachelor of Arts (First-Class Honours) in Psychology and Political Science from the University of Melbourne (UniMelb), Australia. Her research interests include civilian protection, the Women, Peace and Security (WPS) agenda, humanitarian assistance and disaster relief (HADR) operations in Asia-Pacific, and Singapore's foreign policy. She has worked on ASEAN's crisis response mechanisms, including AADMER, with a focus on strengthening protection for vulnerable communities and enhancing operational preparedness. She has also contributed to research on social cohesion and community resilience in Southeast Asia.