



# **First-ever community-level anticipatory action simulation in Sri Lanka**

**25<sup>th</sup> to 27<sup>th</sup> July 2023**

Nuwara Eliya, Sri Lanka

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INITIATIVE ON  
Climate Resilience

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## Suggested Citation

Alahacoon, N.; Amarnath, G.; Gnanatheepan, W. 2023. *First-ever community-level Anticipatory Action Simulation in Sri Lanka*. Report of the Anticipatory Action Simulation, Nuwara Eliya, Sri Lanka, 25-27 July 2023. Colombo, Sri Lanka: International Water Management Institute (IWMI). CGIAR Initiative on Climate Resilience. 18p.

**Cover photo:** Pradeep Liyanage, Community members holding the vouchers. Nuwaraeliya, Sri Lanka

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## Acknowledgments

This work was carried out with support from the CGIAR Initiative on Climate Resilience, ClimBeR. We would like to thank all funders who supported this research through their contributions to the [CGIAR Trust Fund](#).

We would also like to thank the implementing partner, World Vision Lanka and other partner agencies; Disaster Management Centre (DMC), National Building Research Organization (NBRO), Irrigation Department (ID), District Secretariat of Nuwara Eliya and Divisional Secretariats of Talawakele, Norwood and Ambagamuwa.

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Learn more about ClimBeR here: <https://www.cgiar.org/initiative/climate-resilience/>

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## LIST OF ACRONYMS

AA	Anticipatory Action
AWARE	Early Warning, Early Action and Early Finance
ClimBeR	CGIAR Initiative on Climate Resilience
DMC	Disaster Management Center
NBRO	National Building Research Organization
ID	Irrigation Department
DSD	Divisional Secretariat Division

## SUMMARY

Sri Lanka experiences distinct monsoon seasons, the Southwest and Northeast monsoons, contributing to the risk of flooding and landslides in different regions. The Nuwara Eliya district, facing elevated threats of landslides and floods, underscores the importance of proactive measures such as Anticipatory Action (AA). AA empowers communities by enabling precautionary measures, and a collaborative three-day simulation, involving World Vision Lanka, the International Water Management Institute (IWMI), and government partners, sought to enhance community resilience comprehensively. The simulation focused on holistic empowerment, resilience-building, coordination strengthening, and increased awareness.

The AA simulation, spanning preparedness, readiness, and activation triggers, involved early warnings that activated AA protocols. Community engagement included awareness campaigns, evacuation planning, and resource pre-positioning. As rainfall intensified, readiness triggers prompted canal cleaning, slope stabilization, and household preparations. The active phase featured an evacuation alert efficiently communicated by Mr. Early Warning. Community members, supported by various stakeholders, were evacuated to safety centers, with special attention to vulnerable groups and diverse services ensuring their well-being. Feedback highlighted positive responses to early warnings and potential practice impact. However, confidence levels varied regarding facing future disasters, and community satisfaction with services indicated room for improvement. Accessibility and support services for vulnerable groups emphasized the need for enhanced inclusivity in disaster preparedness. The simulation, a collaborative effort of key agencies, showcased a comprehensive approach, providing valuable insights for future initiatives.

## BACKGROUND

Sri Lanka Situated in the Indian Ocean and separated from the Indian subcontinent by the Gulf of Mannar and the Palk Strait, the island nation of Sri Lanka, encompassing a land area of 65,610 km<sup>2</sup>, boasts diverse ecological zones, including tropical forests, highlands, lowland plains, and varied coastal belts. Despite its relatively small size, Sri Lanka experiences distinct monsoon seasons, each contributing to the potential for flooding resulting from intense rainfall. The Southwest monsoon, prevalent from May to September, primarily impacts the southern and Sabaragamuwa provinces, whereas the Northeast monsoon, occurring from December to February, disproportionately affects the eastern, northern, and northcentral provinces. The country faces a spectrum of hazards, with seasonal and localized flooding and landslides ranking as the most common, particularly in regions like Nuwara Eliya, Kandy, Rathnapura, Badulla, and Matara. Additionally, Sri Lanka contends with cyclones, storm surges, droughts, and high winds, further underscoring the importance of comprehensive disaster preparedness and management initiatives (Ministry of Disaster Management, 2019; Galle, Matara, Colombo, Gampaha, Kalutara, Hambantota)<sup>1</sup>.

In contrast to various other districts, the Nuwara Eliya district confronts a heightened risk of landslides and floods, regrettably receiving comparatively less attention. This underscores the need for increased focus and proactive measures, such as Anticipatory Action (AA), specifically tailored to enhance the resilience of the local population in Nuwara Eliya against the hazards of landslides. Anticipatory action, as a strategic approach, empowers communities by enabling them to take precautionary measures before the onset of a potential disaster, thereby diminishing its impact and minimizing associated losses. The effectiveness of anticipatory action lies in its capacity to identify and address risks in advance, offering a proactive and preventative response to mitigate the severity of adverse events.

Engaging in a comprehensive initiative aimed at enhancing community resilience to floods and landslides, an Anticipatory Action (AA) simulation process has been undertaken to empower individuals with the skills to overcome these challenges effectively. This simulation, a collaborative effort between World Vision Lanka, the International Water Management Institute (IWMI) the Disaster Management Center, the Nuwara Eliya District Secretariat, and various other government partners, marked a significant milestone with the successful execution of the inaugural community-level simulation of anticipated actions in Sri Lanka. The simulation took place over three days, from July 25 to 27, 2023, and was made possible through the partnership between World Vision Lanka and the International Water Management Institute (IWMI). This strategic collaboration aimed to translate the simulation into tangible, on-the-ground practices, fostering a proactive and prepared community response to potential disasters.<sup>1</sup>

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<sup>1</sup> [Situation Summery 1800hrs 20122019edited3 1576862826.pdf \(dmc.gov.lk\)](#)

## **Objectives of Anticipatory Action Simulation**

The primary objective of the Anticipatory Action Simulation is to empower the community through a comprehensive preparedness strategy. Beyond testing response mechanisms, the simulation aims to intricately examine and refine these mechanisms, identifying strengths and areas for improvement. The overarching goal is to cultivate community resilience, focusing on immediate response capabilities and sustained adaptability in the face of potential disasters.

Moreover, the simulation catalyzes strengthening coordination among diverse stakeholders, including governmental bodies and organizations involved in disaster management. Providing a simulated environment, facilitates collaboration, emphasizing the importance of coordinated efforts during real-life emergencies. Simultaneously, it plays a crucial role in bolstering community awareness, acting as an educational tool to disseminate knowledge about hazards, anticipatory actions, and the broader spectrum of disaster risk reduction approaches.

In essence, the Anticipatory Action Simulation is more than a practical exercise; it functions as a holistic approach to community empowerment, resilience-building, enhanced coordination, and heightened awareness. Its comprehensive nature aims to drill a robust disaster risk reduction mindset within the community, aligning with the broader goal of fostering a proactive and adaptive approach to potential disasters.

## **SIMULATION PROCESS**

The Anticipatory Action (AA) simulation program spanned three days within the Nuwara Eliya district, covering Chrysler's farm, Chalmers & Lochiel and Harrington states. Each day featured a range of activities meticulously organized based on the activation of the anticipatory action protocol, aligned with the Anticipatory Action Trigger Level. This Trigger Level represents a predefined threshold or a specific set of conditions. Upon being met or forecasted, it catalyzes initiating the implementation of anticipatory actions. The Anticipatory Action process follows a systematic approach, encompassing preparedness, readiness, and activation triggers. This comprehensive strategy aims to facilitate a timely and effective response to potential flood and landslide disasters, emphasizing the importance of proactive measures in disaster management.

### **Day 1 (25th July 2023) - Monitoring Trigger**

Once the monitoring alert on the potential highly intense rain is received community members are engaged in the preparedness meetings to activate the anticipatory action protocol by enabling the below activities.



- Strengthening the Community Awareness of upcoming hazards: Conduct awareness campaigns to the community about the risks and impacts of floods and landslides. This includes disseminating information on evacuation procedures, safe shelter locations, and emergency contact numbers.
- Evacuation Planning for the community: Developing and communicating evacuation plans well in advance, including identifying evacuation routes, safe shelters, and assembly points.
- Resources Pre-positioning: Stockpiling essential resources and emergency supplies in strategic locations to facilitate a rapid response. This may include items such as food, water, medical supplies, and temporary shelter materials.

## **Day Two (26th July 2023) – Activation Trigger**

As the intensity of rainfall increases, triggering intensified concerns, the readiness trigger is activated, prompting the dissemination of warning messages to the community. These crucial alerts are communicated through a coordinated effort involving the Disaster Management Centre (DMC), the District Secretary, the Divisional Secretary, and Gramaniladari. In response, the Anticipatory Action Protocols designated for the readiness phase are activated. The community becomes actively involved in a series of appropriate activities, ensuring that the entire readiness process is accurately executed well in advance. This comprehensive approach aims to proactively prepare the community for potential hazards, fostering a state of heightened awareness and responsiveness.



***The duty Officer provides the alert trigger to the higher officials in DMC.***



***The Director General DMC sent the alert to district secretary.***





***Receiving the alert message by district secretary of Nuwara Eliya District.***



***Receiving readiness alert by divisional secretary from district Secretary***



***Disseminating readiness alert to Gramaniladari by divisional Secretary***



***Providing community awareness***



***Discussion on evacuation Planning***

## **Action for Activation trigger**

In the community, a series of proactive measures are initiated by community members to enhance preparedness and resilience.

- These measures encompass a range of activities, including canal cleaning Works. Community members actively participate in cleaning and maintaining canals to ensure optimal drainage and reduce the risk of flooding.
- Simultaneously, efforts are directed toward stabilizing slopes, employing techniques to mitigate the potential impact of landslides in vulnerable areas.
- Furthermore, recognizing the importance of individual and household preparedness, each household takes proactive steps to ready themselves for any potential evacuation alert. This involves securing essential belongings, preparing emergency kits, and familiarizing family members with evacuation procedures.
- In preparation for potential emergencies, community members actively engage in cleaning and maintaining evacuation centers, ensuring that these facilities remain accessible and safe for use during crises. This involves thorough cleaning of the evacuation centre premises, including common areas, sleeping quarters, and sanitation facilities.
- World Vision and the International Water Management Institute issued commodity vouchers to households actively involved in canal cleaning and slope stabilization activities, as well as to households with differently abled individuals and elders. These vouchers enable recipients to purchase essential goods in advance, ensuring their access to necessary supplies before any potential evacuation. This proactive approach enhances the preparedness of vulnerable households, recognizing their contributions to community resilience efforts and addressing the unique needs of those with special considerations.
- Leveraging the vouchers provided by IWMI and WV, community members visited designated locations to procure essential dry goods and other necessary items required in the event of an emergency. This initiative empowered individuals to make informed and timely purchases, contributing to their overall preparedness and ensuring they have crucial supplies readily available when needed.





***Cannel cleaning***



***Slope stabilization***



***Distribution of vouchers to buy essential items.***



***Purchasing essential items using the vouchers provided.***

### Day 3 (27th July 2023) – Evacuation Trigger

Considering persistent heavy rainfall, authorities issued an evacuation alert by activating the Anticipatory Action protocols for active triggers. The major action to be taken by advising community members to relocate from their homes to safer locations. Mr. Early Warning, responsible for communicating early warnings at the village level, disseminated the message from the authorities to the community members using a megaphone.



*Evacuation alert received to the community from DMC*

#### Action for Evacuation Trigger

- Mr Early Warning disseminated the evacuation alert using the megaphone.
- Upon receiving the alert from Mr Early Warning, community members promptly evacuated their residences and proceeded to the assigned safety centre, ensuring an immediate and organized response to the potential hazards posed by the adverse weather conditions.
- Stakeholders accorded special consideration to community members requiring additional assistance during evacuation.
- Upon reaching the safety centre, the registration desk documented the names and details of community members.
- A dedicated area for children's activities was designated within the safety center.
- The camp management team, comprising members of the Disaster Management Committee and community representatives, engaged in cooking using items acquired through commodity vouchers.



- The Red Cross Society organized a special medical care area, offering focused attention to community members requiring special care.
- The Sri Lanka Police and the Village Safety and Security Committee collaborated to ensure the village's safety from potential thefts and robberies during the community members' absence.
- Additionally, the District Secretary of Nuwara Eliya visited the safety centre to assess the community's well-being and the facilities provided at the centre.



***Siren to disseminate the evacuation message.***



***Mr. Early Warning disseminate the evacuation message using mega phone.***



***Community evacuation following the Anticipatory Action Protocol based on the evacuation alert from DMC.***



***Registration at the evacuation center***



***Special care for the differently abled in the community***



**Preparing food for the community at the evacuation center**

## **CLOSING OF SIMULATION**

The conclusion of the simulation culminated in a community lunch, marking the conclusion of activities once the evacuation alert, issued by the authorities, was lifted. This collective gathering served as a symbolic and practical endpoint to the simulated events, providing an opportunity for community members to come together, share a meal, and collectively reflect on the exercise.



***Inspection of the community well-being at the evacuation center by the district and divisional secretary.***

## **PARTICIPANTS**

The table provides an overview of participant demographics in the Anticipatory Action Simulation across three locations: Chrysler's farm, Chalmers & Lochiel, and Harrington.

	<b>Chrysler's farm</b>	<b>Chalmers &amp; Lochiel</b>	<b>Harrington</b>
<b># of Males</b>	178	264	113
<b># of Females</b>	177	264	97
<b># of Children</b>	15	22	15
<b>Sum</b>	370	550	225





***Partner organizations of the AA simulation***

## **FEEDBACK**

The general feedback questionnaire delves into key aspects of participants' experiences in the Anticipatory Action Simulation. It explores their understanding of disaster preparation, the effectiveness of early warning messages, the perceived positive impact of the simulation on their practices, the resulting confidence to face future disasters, satisfaction with provided services, and their overall opinion on the simulation exercise. The feedback questionnaire focuses on Gender Equality, Disability and Social Inclusion related explores the availability of easy access for Persons with Disabilities (PWD), children, elders, and women, the provision of special services for these groups during emergencies, the perceived opportunities for voicing concerns or opinions, and the level of peer support for mobility during emergencies.

### **General feedback**

The community feedback from the Anticipatory Action Simulation reflects a strong consensus on several aspects. While a significant majority (80%) feel adequately prepared or knowledgeable about reacting before a disaster, there is a notable concern (20%) in this regard. The reception of early warning messages appears highly positive, with 85% agreeing that they received enough warnings. The community overwhelmingly believes (90%) that the simulation activity will positively impact their practices, indicating a strong endorsement of its effectiveness. However,

confidence levels in facing another disaster event are varied, with 40% agreeing, 40% not sure, and 20% disagreeing. Satisfaction with the services received, including safety facilities and ration packs, shows room for improvement, with 50% expressing dissatisfaction. Despite this, the general opinion on the simulation exercise is largely positive, with 85% agreeing that it was a beneficial experience. These insights underscore the importance of addressing specific concerns, refining services, and ensuring a more uniform level of confidence in disaster preparedness among community members.

	Strongly Disagree	Disagree	Not-sure	Agree	Strongly Agree
Know how to prepare or react before a disaster			20%	80%	
Were you able to receive enough Early warning messages?				15%	85%
Do you believe this simulation activity will improve positively your practices?				90%	10%
With this experience of simulation, do you have the confidence to face another disaster event?			20%	40%	40%
What level of satisfaction did you have with the service you got from us? Safety facility, vendor, dry ration pack, etc.		10%	50%	40%	
What is your general opinion on this simulation exercise?				85%	15%

### Gender Equality, Disability and Social Inclusion related feedback

The community feedback on accessibility and support services during the Anticipatory Action Simulation reveals distinct patterns. While there is unanimous disagreement (95%) on the availability of easy access for Persons with Disabilities (PWD), children, elders, and women, there is a more balanced view (70% disagreement, 30% agreement) regarding the provision of special needs services for these groups during emergencies. The community's perception of their opportunity to raise their voice is mixed, with 40% disagreeing, 50% agreeing, and 10% uncertain. Similarly, the responses on the availability of peer support for mobility during emergencies indicate a need for improvement, with 20% agreeing, 50% disagreeing, and 30% being unsure. These insights highlight crucial areas where enhancements and adjustments in services can

contribute to a more inclusive and supportive environment during disaster preparedness and response activities.

	Strongly Disagree	Disagree	Not-sure	Agree	Strongly Agree
Availability of easy access for PWD children, Elders, and Women.				95%	5%
Availability of special need services to PWD children, Elders, and Women during an emergency?				70%	30%
Do we have sufficient opportunity (Platform) to raise our voice?			40%	50%	10%
Do we have sufficient peer support for mobility during emergencies?			20%	50%	30%