G20 BRASIL 2024

BUILDING A JUST WORLD
AND A SUSTAINABLE PLANET

G20 White Paper - Leveraging Existing Platforms for Knowledge Sharing on Early Warning Systems

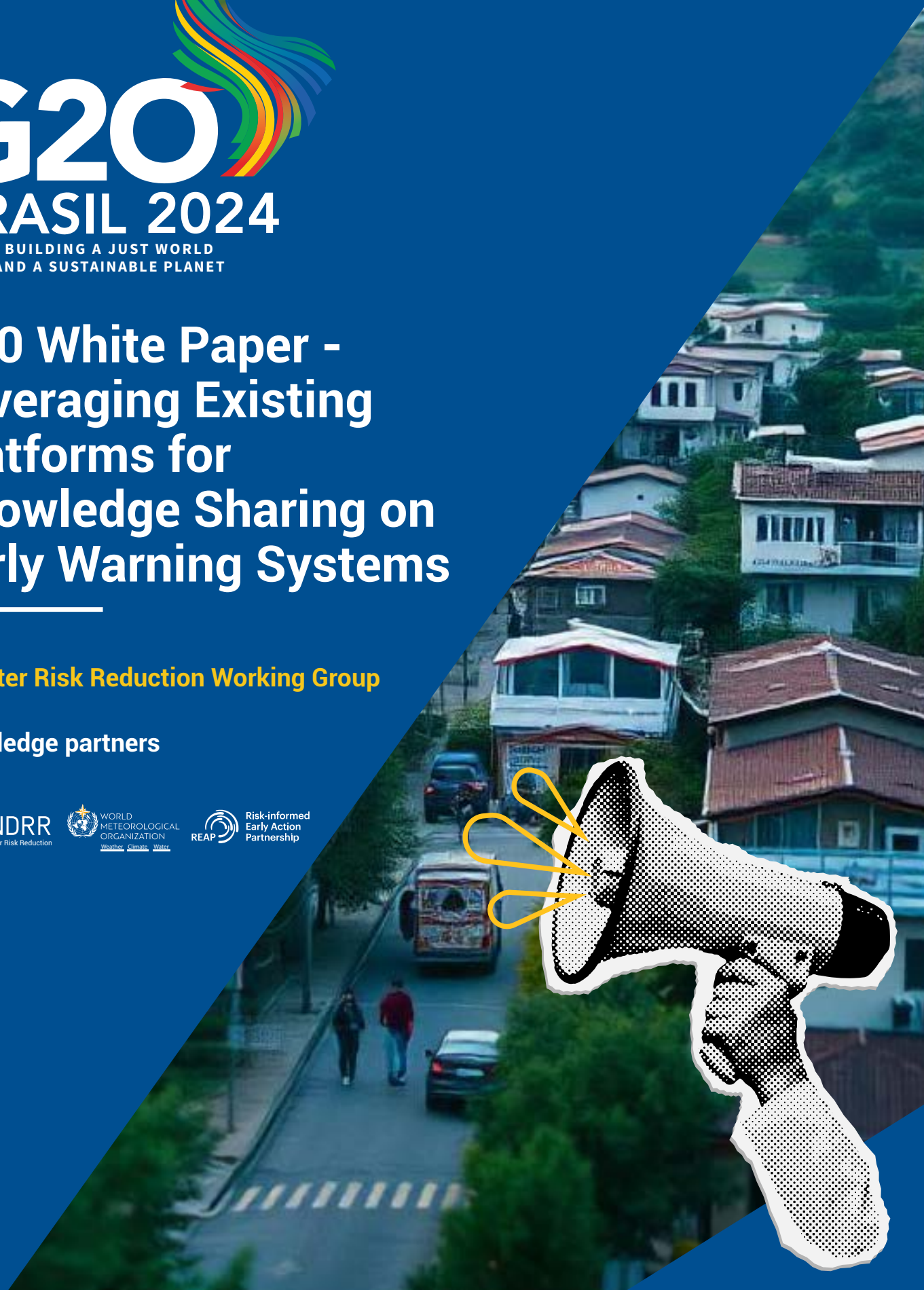
Disaster Risk Reduction Working Group

Knowledge partners

UNDRR
UN Office for Disaster Risk Reduction

WORLD METEOROLOGICAL ORGANIZATION
Weather. Climate. Water.

REAP Risk-informed Early Action Partnership

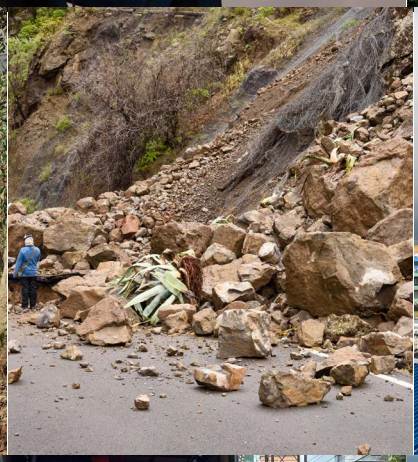
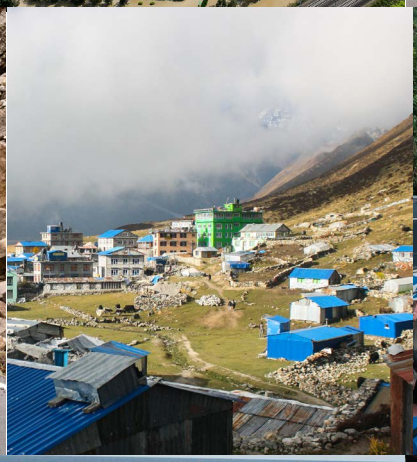






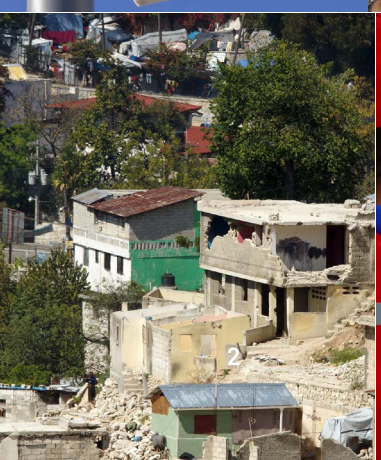


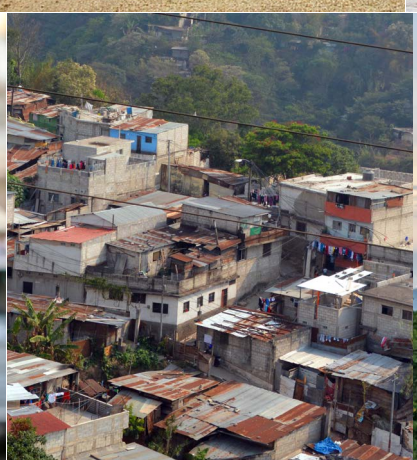





TSUNAMI HAZARD ZONE
IN CASE OF EARTHQUAKE GO TO HIGH GROUND OR INLAND



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To download the full report, visit: https://www.undrr.org or the G20 Working Group on Disaster Risk Reduction webpage: https://g20drrwg.preventionweb.net.

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This white paper responds to a specific request by the G20 Disaster Risk Reduction Working Group (DRRWG) to explore the potential of digital platforms for knowledge sharing across the four pillars of early warning systems. Rather than advocating for the creation of a new platform, this paper demonstrates that the existing digital infrastructure—namely PreventionWeb and the Early Warnings for All website—already provides comprehensive tools for global knowledge exchange and capacity building.

Early warning systems (EWS) are crucial in mitigating the impacts of disasters by providing timely information and enabling effective preparedness and response. Effective knowledge sharing across the four pillars of early warning systems—risk knowledge, monitoring and warning services, dissemination and communication, and response capabilities—is essential for enhancing resilience and reducing disaster risks.

In this white paper, we propose that existing platforms, such as the PreventionWeb and the Early Warnings for All website, are sufficient for comprehensive knowledge sharing on early warning systems, making the creation of a new platform unnecessary and resource-intensive.

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Key Platforms Overview: *PreventionWeb and Early Warnings for All*

Early Warnings for All Website

The Early Warnings for All website, maintained by the World Meteorological Organization (WMO), represents the overall work and impact of the initiative. It hosts information on the initiative's origin, advisory panel, programmatic framework, implementation toolkit, and supporting resources. The annual **Global Status of Multi-Hazard Early Warning Systems** report is also available on the website. Additionally, the site provides links to each of the pillar leads' websites, offering access to further technical content.

Early Warnings for All Dashboard

The dashboard is a subsite of the EW4All official website and displays real-time progress related to the initiative. It serves as a centralized data portal, where data for the four Early Warnings for All Key Pillars, as well as disaster risk reduction (DRR) strategies and cross-cutting enablers, can be monitored and visualized. The dashboard presents selected global, national, and implementation indicators to track progress on the initiative and the capacity of early warning systems, both globally and nationally.

PreventionWeb

Developed and maintained by the United Nations Office for Disaster Risk Reduction (UNDRR), *PreventionWeb* serves as a comprehensive platform for sharing information, good practices, and resources related to disaster risk reduction (DRR). It includes a dedicated section on early warning systems, covering various aspects such as risk assessment, monitoring technologies, capacity building, and case studies. The platform curates updates and resources on the Early Warnings for All initiative. PreventionWeb has an API and a content syndication feature, allowing integration of its content on third-party websites.

Website: preventionweb.net

Reasons for Utilizing Existing Platforms and Not Creating a New Platform:

1. **Comprehensive Content:** Existing platforms already offer a wealth of information across all four pillars of early warning systems. This includes risk assessments, weather and climate data, technological advancements, good practices, training materials, and policy guidelines.
2. **Global Reach and Accessibility:** These platforms enjoy a well-established and dedicated global audience, including policymakers, practitioners, researchers, and communities. They are accessible in multiple languages and address diverse needs and contexts.
3. **Expertise and Collaboration:** Existing platforms benefit from collaboration with leading experts, international organizations, and national meteorological and disaster management agencies, ensuring the reliability and relevance of shared information.
4. **Cost-Effectiveness:** Leveraging existing platforms eliminates the costs associated with developing and maintaining a new digital platform. This approach optimizes resources, allowing for focused investments in content development and user engagement.

Conclusion: Maximizing Existing Platforms for Enhanced Knowledge Sharing

Considering the resources and reach provided by PreventionWeb and the Early Warnings for All website, it becomes evident that these platforms offer unparalleled value for knowledge sharing across the four pillars of early warning systems. Their global audience, expert contributions, interactive tools, and cost-effective infrastructure make them ideal venues for fostering dialogue, disseminating best practices, and bolstering disaster resilience. In this context, we advocate for maximizing the utilization and development of these existing platforms to promote a more efficient and synergistic approach to disaster risk management and early warning, rather than creating a new digital platform.

Additional Platforms of Relevance for Early Warning Systems

United Nations Office for Disaster Reduction (UNDRR): UNDRR's website offers resources, reports, and initiatives related to disaster risk reduction, resilience-building, and early warning systems. Website: undrr.org

World Meteorological Organization (WMO): The WMO website provides valuable resources, guidelines, and data related to meteorological and hydrological services, including those essential for early warning systems. Website: https://wmo.int/activities/early-warnings-all/wmo-and-early-warnings-all-initiative

International Federation of Red Cross and Red Crescent Societies (IFRC): The IFRC provides information, tools, and guidance on disaster preparedness, response, and early warning systems, focusing on humanitarian assistance. Website: ifrc.org

International Telecommunication Union (ITU): ITU promotes Information and Communication Technology (ICT) solutions and telecommunications infrastructure that support early warning systems and disaster risk reduction efforts globally. Website: itu.int

REAP (Risk-informed Early Action Partnership): REAP convenes and connects diverse stakeholders to make sense of the early warning and early action landscape, producing knowledge products that bridge silos to enable systemic change. Its aim is to make early action ahead of disasters the norm through alignment and mobilisation of partners toward four ambitious targets. Website: https://www.early-action-reap.org/

CREWS (Climate Risk and Early Warning Systems): CREWS provides technical assistance to enhance the accuracy, coverage, and timeliness of early warnings for climate-related hazards such as floods, droughts, and storms. Website: crews-initiative.org

Anticipatory Action Hub: This platform brings together expertise, knowledge, and resources related to anticipatory action, early warning systems, and disaster risk reduction. Website: anticipation-hub.org

Global Disaster Alert and Coordination System (GDACS): GDACS provides real-time alerts and information on major disasters worldwide, including early warnings for earthquakes, tsunamis, tropical cyclones, and floods. Website: gdacs.org

European Commission – European Emergency Response and Coordination Center (ERCC): The ERCC portal provides geospatial maps that offer situational awareness during disaster events, supporting rapid decision-making and more effective coordination. Additionally, it produces concise analytical briefs that give an overview of an event, including the scientific background, geographical context, known or potential impacts, and any offers of assistance. The ERCC also provides updates on deployed and forthcoming assistance efforts. Website: https://erccportal.jrc.ec.europa.eu/#/echo-flash-items/latest.

European Commission - Copernicus Emergency Management Service (EMS): Copernicus EMS offers rapid mapping and early warning services for emergency response to disasters in Europe and globally. Website: emergency.copernicus.eu

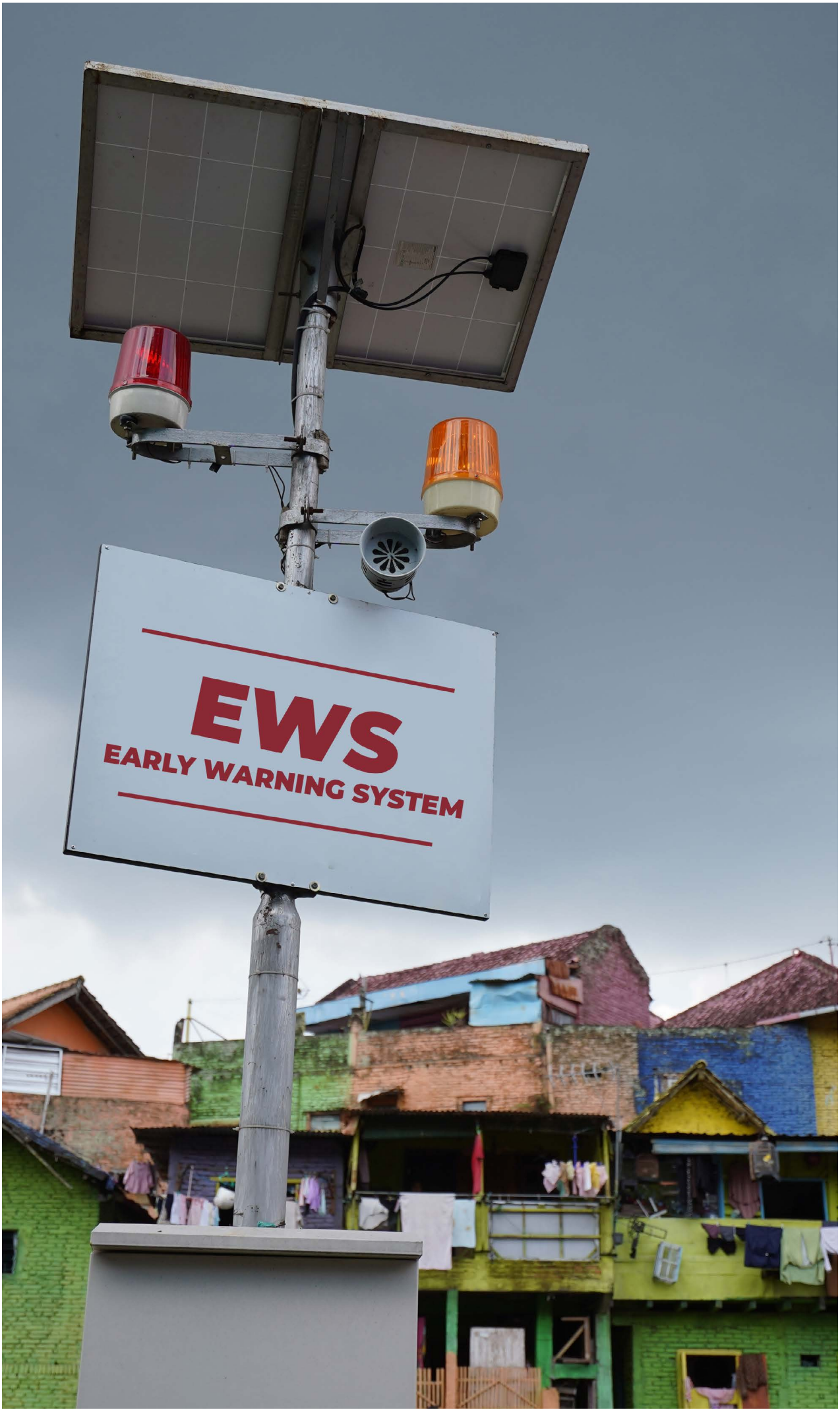
Pacific Disaster Center (PDC): PDC provides data, tools, and services for disaster risk reduction, including early warning systems, for the Asia-Pacific region and beyond. Website: pdc.org

Coalition for Disaster Resilient Infrastructure (CDRI): CDRI offers tools and resources for assessing infrastructure gaps specific to early warning systems. Website: https://www.cdri.world/

US Geological Survey (USGS): The USGS offers information and alerts for geological hazards such as earthquakes, volcanoes, landslides, and tsunamis, contributing to early warning efforts. Website: usgs.gov

National Oceanic and Atmospheric Administration (NOAA): NOAA provides weather forecasts, warnings, and data for the United States, contributing to early warning systems for severe weather events. Website: noaa.gov

Asian Disaster Reduction Center (ADRC): ADRC shares information, case studies, and resources on disaster risk reduction and early warning systems, focusing on the Asia-Pacific region. Website: adrc.asia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