

Agenda item 4 (a) iv

Emerging and transformational adaptation technologies

Advancing community-based early warning systems

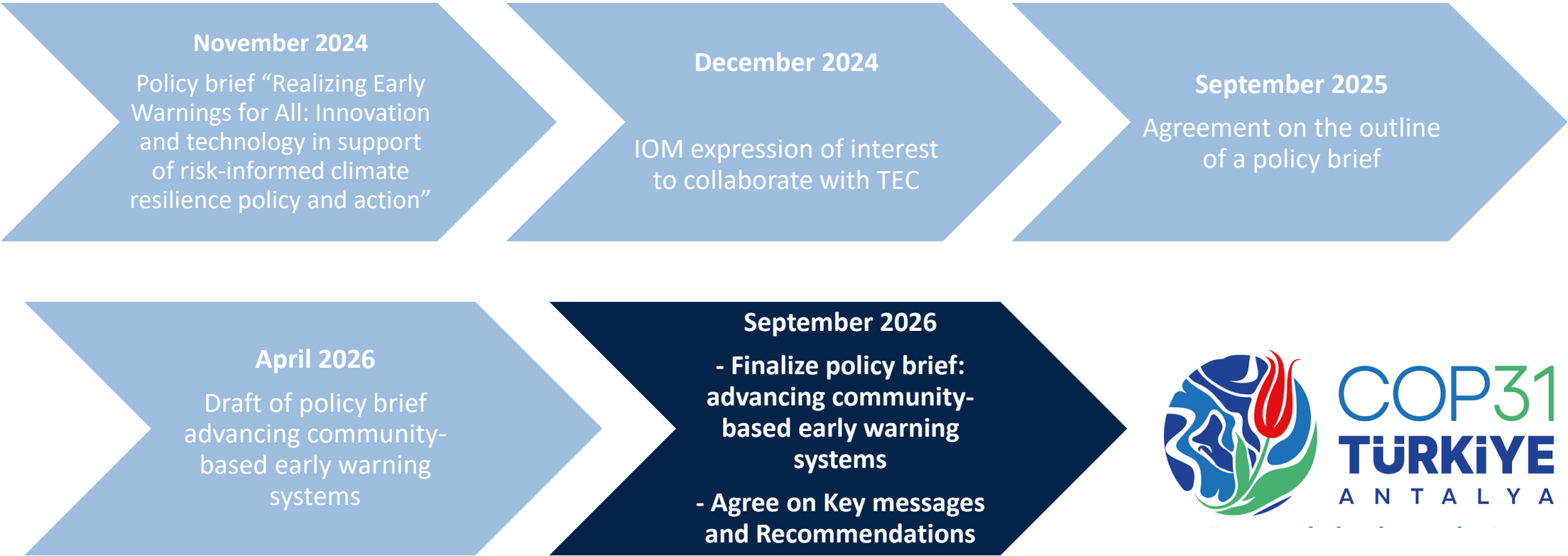
TEC 33 & Joint session of the TEC - CTCN Advisory Board
15 – 17 and 18 September 2026 | Bonn, Germany



United Nations Climate Change
Technology Executive Committee

Edalmi Pinelo
TEC member

Timelines



TEC 32

Add a glossary and definitions for acronyms, with agreed UNFCCC terminology and language applied throughout

Use more balanced and less prescriptive language in formulating recommendations to Parties

Include examples of traditional and Indigenous approaches to hazard forecasting, where relevant



Consultation process

To strengthen the draft policy brief, engagement with the key partners whose expertise shaped its direction:



EW4All Pillar 1

Implementing partners of Disaster risk knowledge,
led by UNDRR



GEO Working Group

Disaster Risk Reduction and Adaptation Working
Group



Revised draft policy brief

Advancing community-based early warning systems



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Nicholas Bishop
IOM

Latest policy brief draft: what change?

EARLIER VERSION

Working structure already in place

- People-centred EWS framing
- Community-driven, low-tech and hybrid solutions
- Accessibility for mobile and displaced populations
- Financing, capacity and technology for last-mile delivery

Main gap: fewer explicit bridges to TEC priorities and a lighter evidence base.



UPDATED

LATEST DRAFT

Substantive changes now reflected based on expert consultation process with 100s of experts, TEC32 and AG meeting (August) feedback session.

1. Formatting changes- glossary added; case studies converted into tabular format with referencing; executive summary with key messages
2. Scope sharpened: operational companion to TEC–GEO; emphasis on EW4All Pillars 3 and 4.
2. Evidence expanded: 6 detailed updated case studies + 20+ additional examples across regions.
3. TEC alignment strengthened: hardware–software–orgware, appropriate technology, CAP/interoperability where useful.
4. Methodology clarified: IOM country offices + partner networks + literature review; no primary interviews.
5. Recommendations sharpened: governance, hybrid tech, mobility, financing, risk targeting and evaluation.



Next steps- dissemination strategy

Dissemination through existing technical and institutional networks

- Share through TEC/UNFCCC, GEO DRR and Adaptation WG, EW4All Pillar Working Groups, and IOM global, regional and country-office channels
- Targeted circulation to government and technical counterparts, including contributors to the case studies
- Use of selected institutional communications channels, including websites and social media

COP31 visibility

- Explore a light-touch launch or featured discussion at either the IOM Pavilion during COP31 or via UNFCCC convened opportunities at COP31
- Position the brief as a practical contribution to people-centred early warning, climate services and preparedness for mobile and displaced populations



Key messages and recommendations



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Key messages

Effective coverage

Warnings that reach, are understood, trusted and acted upon by everyone at risk.

People-centred systems

Technology combined with local knowledge, governance, capacity and preparedness.

Low-tech and hybrid

Reach that holds at the last mile when power or connectivity fails.

Mobility and displacement

Designed into warning systems from the outset, not added later.

Trusted intermediaries

Local actors carry dissemination, feedback and evacuation support.

Beyond technology

Last-mile delivery needs financing, institutional capacity and clear mandates.

Risk-informed targeting

Investment directed to the most exposed and underserved areas.

Flexible financing

Predictable funds let local actors sustain preparedness and early action.



Recommendations

Policymakers and national authorities

Governance, mandates and inclusive system design

1. Embed people-centred governance throughout early warning systems
2. Combine national capabilities with context-appropriate low-tech and hybrid solutions
3. Integrate mobility and displacement into warning-system design
4. Strengthen the institutional role and capacity of trusted local intermediaries

Finance institutions, climate funds and development partners

Predictable resources and targeted investment

1. Finance operational continuity, not only initial investment
2. Improve local access to flexible and anticipatory financing
3. Use forward-looking risk and mobility analysis to target investment

Implementing partners, local actors and technology partners

Operational delivery, innovation and continuous learning

1. Promote locally appropriate innovation and technological capacity
2. Strengthen interoperability and partnerships while protecting universal access
3. Monitor whether warnings lead to action



Thank you



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