

From forecasts to action

Synergizing heat health resilience across
meteorology, health, and communities

Dr. Novil Wijesekara
Ministry of Health, Sri Lanka

The reality

- Forecasts on extreme heat are improving
- Health impacts are not reducing at the same pace
- Heat risks are rising
- Vulnerable groups remain exposed
- Action often comes too late and at limited scale

The reality

- Forecasts are improving
- Impacts are not reducing at the same pace
- Heat risks are rising
- Vulnerable groups remain exposed
- Action often comes too late

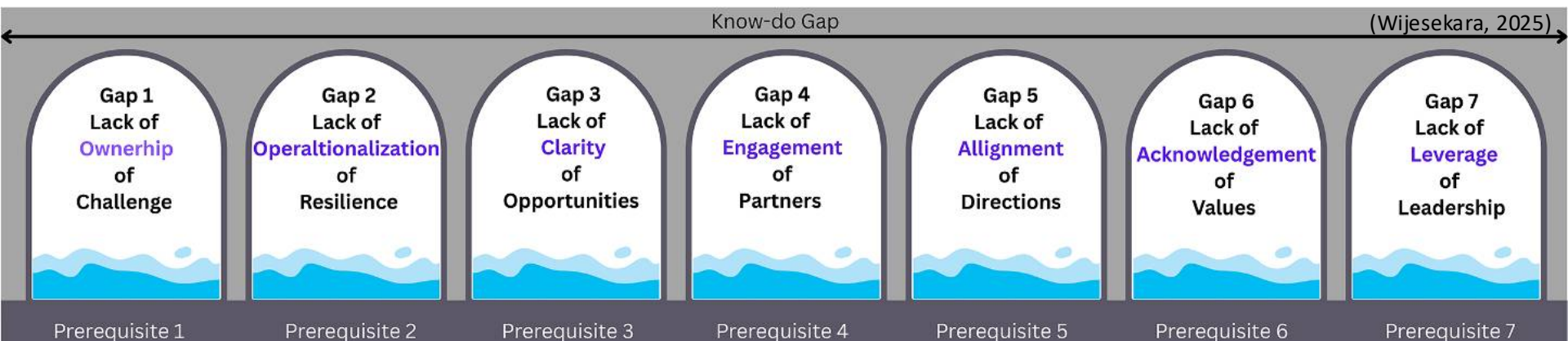
Why does this gap exist?

Health Impacts of Heat as a Challenge

From Lack of Ownership to Shared Ownership

- Heat risk not clearly owned across sectors (health, labour, urban)
- Outdoor workers and vulnerable groups not fully recognized
- Heat underestimated as a public health threat

If no one owns the problem, no one acts!

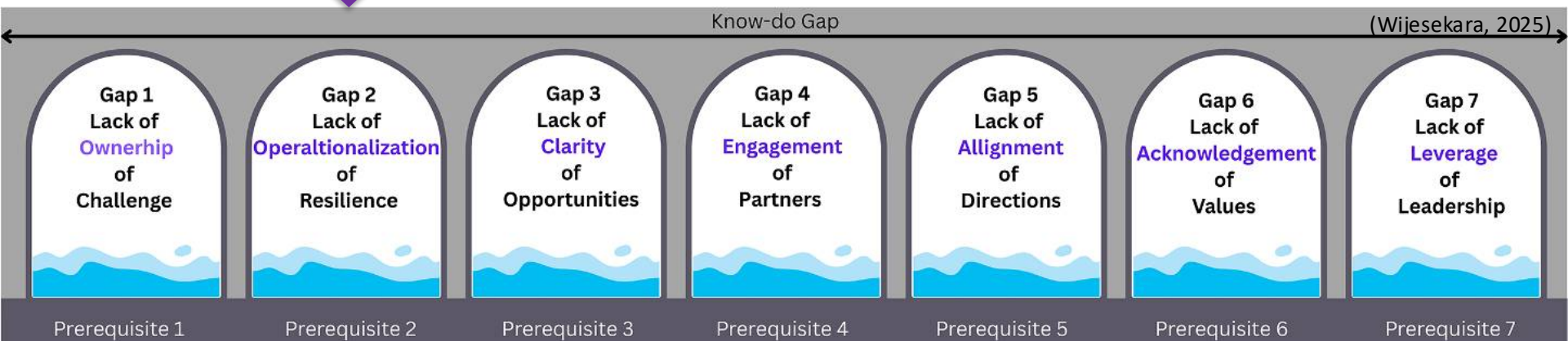


Health Impacts of Heat as a Challenge

From Lack of Operationalization to Shared Understanding

- Stability → maintain health services during heat stress
- Adaptability → adjust work, clinical, and community practices
- Transformability → restoring normalcy following heat events in institutions
- Mobility → integrate heat resilience towards better policies and plans

We speak of resilience, but don't operationalize it!

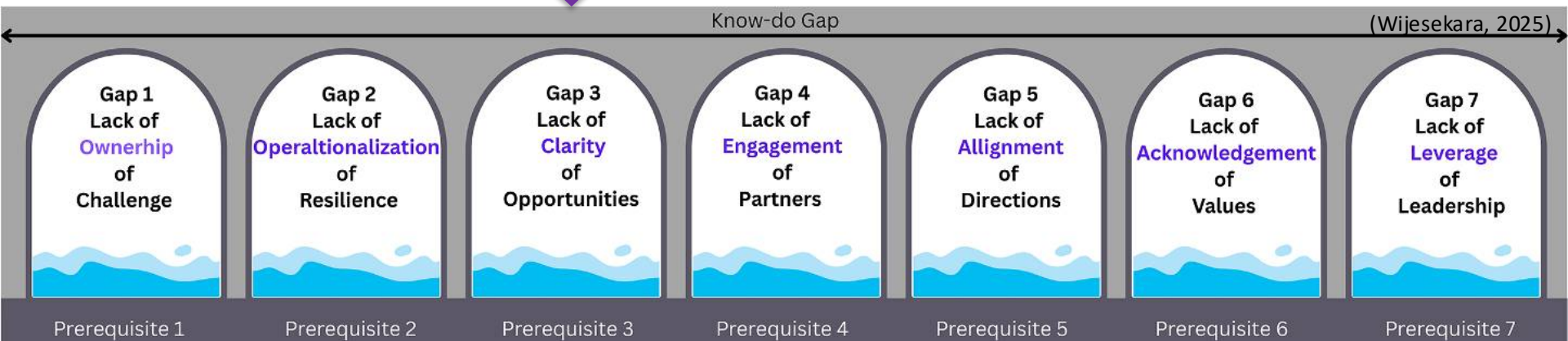


Health Impacts of Heat as a Challenge

From Ambiguity to Shared Clear Opportunities

- Before: Anticipate, Mitigate, Prepare, and Test
- After: Withstand, Cope, Restore and, Thrive

Opportunities exist, but are not seen or used



Health Impacts of Heat as a Challenge

From Lack of Engagement to Shared Partnerships

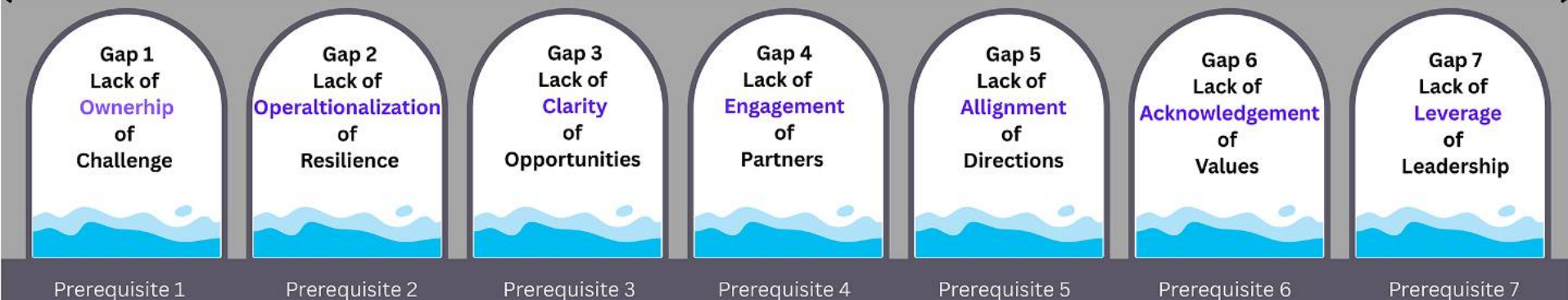
- Reference level: Community
- Proximal level: Families and households
- Distal level: Sectors such as Meteorology, Health, Education

Action fails where engagement is weak



Know-do Gap

(Wijesekara, 2025)

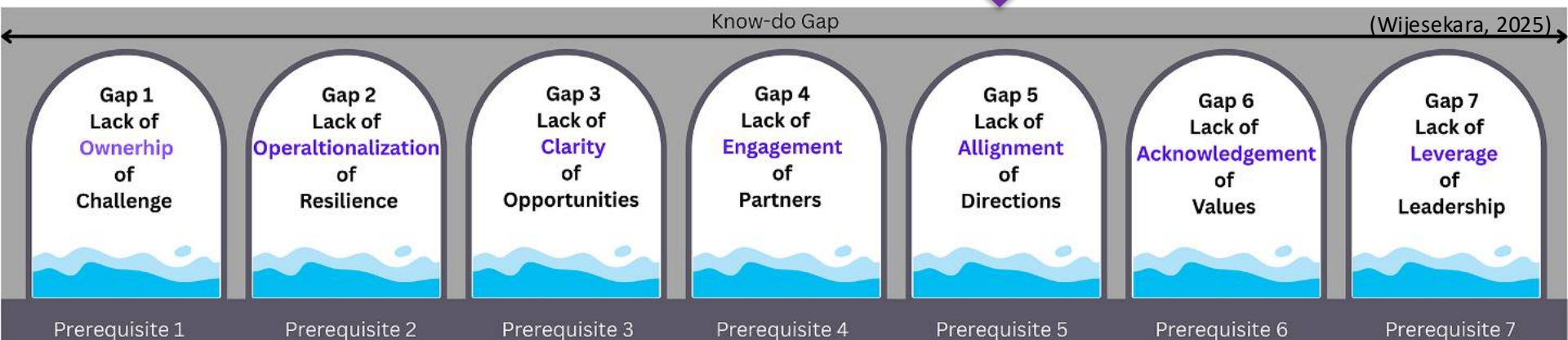


Health Impacts of Heat as a Challenge

From Misalignment to Shared Alignment of Directions

- Shared information → understanding forecasts
- Shared purpose → aligned planning
- Shared resources → enabling response
- Shared action → coordinated implementation

Even good actions fail when not aligned

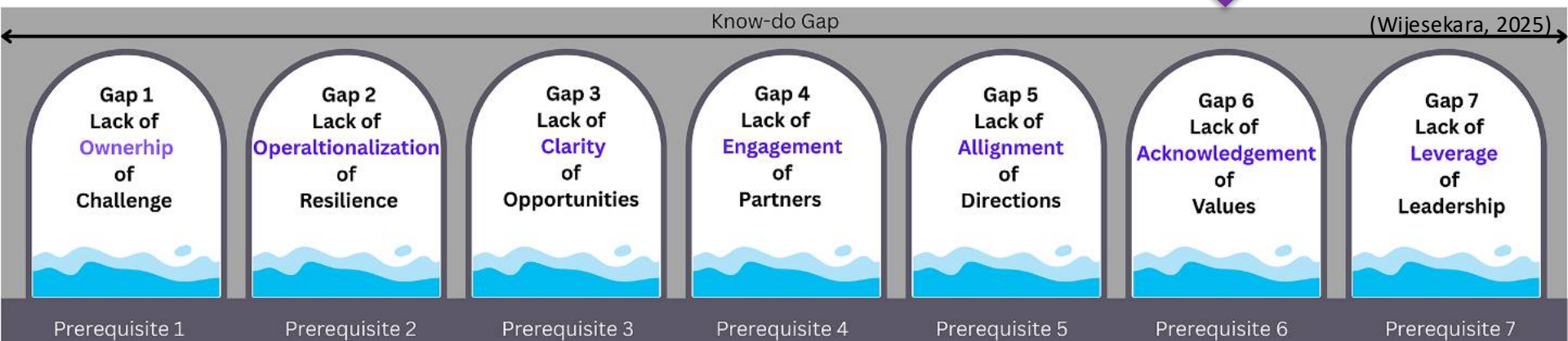


Health Impacts of Heat as a Challenge

From Ignorance to Acknowledgment of Values

- Trust, Diversity, Equity, and Inclusivity
- Innovation, Accountability, Productivity and Sustainability

Values determine who is protected and how

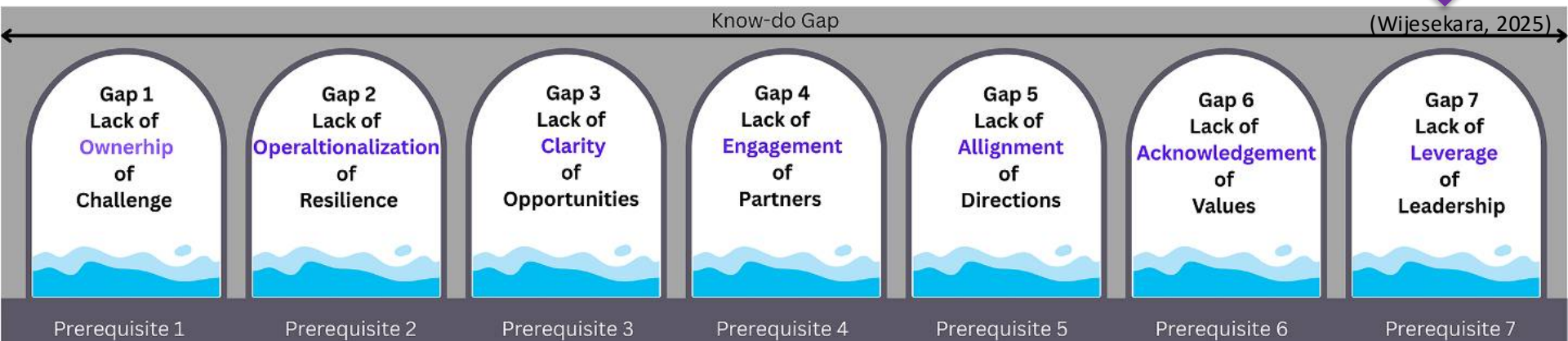


Health Impacts of Heat as a Challenge

From Apathy to Leverage

- Responsibility is unclear
- Leadership remains centralized
- Limited cross-sector coordination

Leadership is the bridge between knowledge and action



Synergistic Resilience Approach

Synergistic Resilience is the dynamic, interconnected, and value-based collaborative approach that integrates leadership across multiple systems, sectors, and levels—including individuals, communities, and both human and natural systems—to promote resilience by effectively and efficiently reducing the risk of challenges and managing them when they occur, achieving more collectively than individual systems functioning alone.



Wijesekara N. 1 + 1 = 3: How Practitioners Can Synergize Resilience Across Health and Beyond. *Disaster Medicine and Public Health Preparedness*. 2025;19:e260. [doi:10.1017/dmp.2025.10185](https://doi.org/10.1017/dmp.2025.10185)

Way forward: From forecasts to coordinated heat health action

- Translate heat forecasts into clear decision triggers at the community and health system levels
- Strengthen health sector capacity to interpret and act at all levels
- Institutionalize producer (meteorology)–user (health/community) co-production
- Embed equity, values, and leadership into action