Supported by:

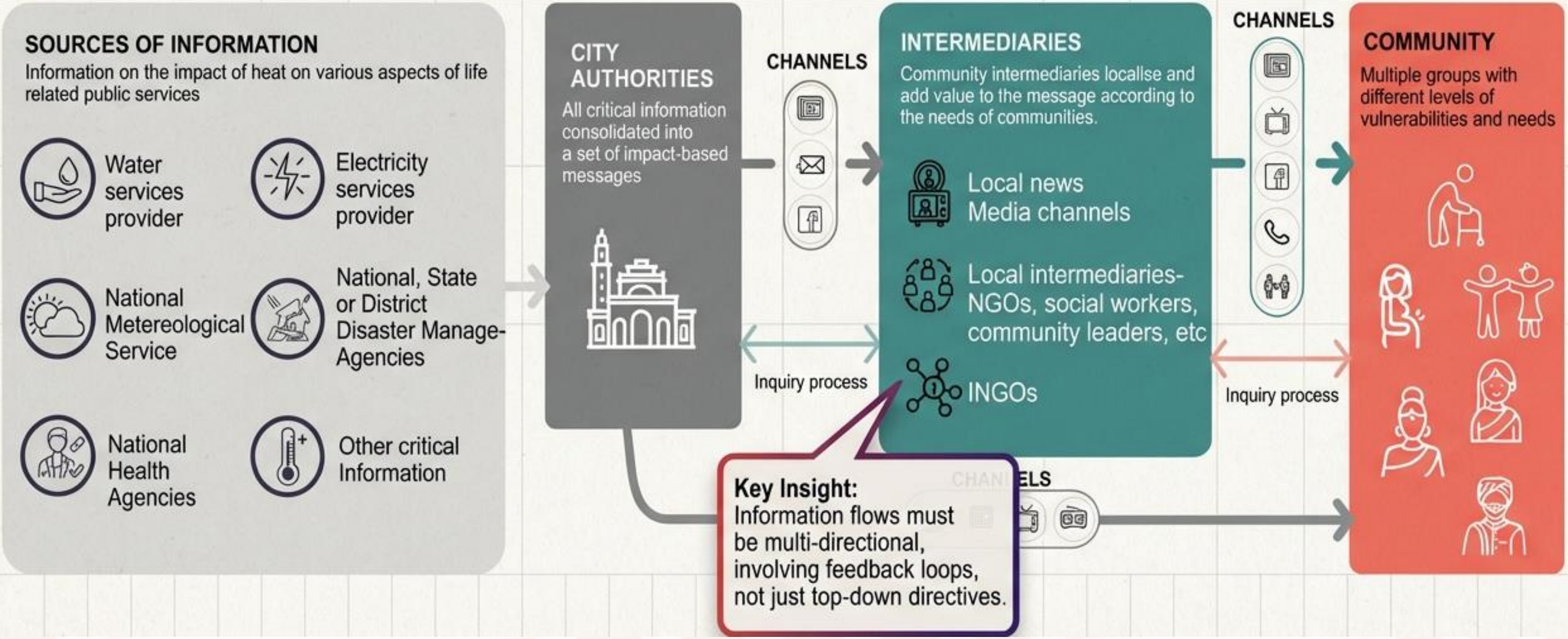
REGIONAL WORKSHOP ON IMPACT-BASED FORECASTING

Training-of-Trainers and National Demonstration Planning for Temperature-Related Hazards

Heat Risks Communication

THE HEAT COMMUNICATION ECOSYSTEM

Bridging the gap between meteorological data and human survival through Co-production.



THE FOUR PILLARS OF SURVIVAL: ARUA

To save lives, information must successfully survive a four-stage journey. Failure at any stage breaks the chain.

ACCESS

Can the most vulnerable physically receive the message?

RELEVANCE

Does the message matter to their specific context?

UNDERSTANDING

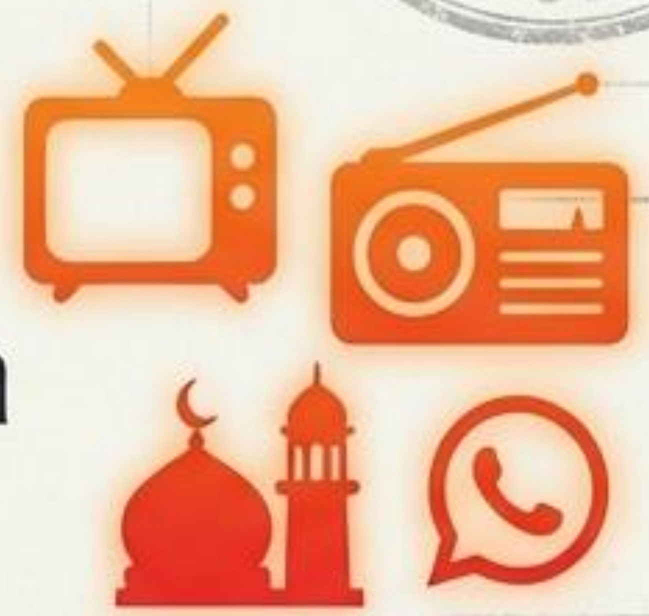
Do they comprehend the language and visuals?

ACTION

Can they, and will they, take steps to protect themselves?

PILLAR 1: ACCESS – BEYOND OFFICIAL CHANNELS

Ensuring critical information reaches vulnerable communities through their preferred and trusted networks.



High Tech vs. High Trust

High Tech
(Barriers: Data Cost, Device Access)

- Apps (Avg user in India has 51 apps but uses only 24)
- Websites

High Trust
(Preferred Channels)

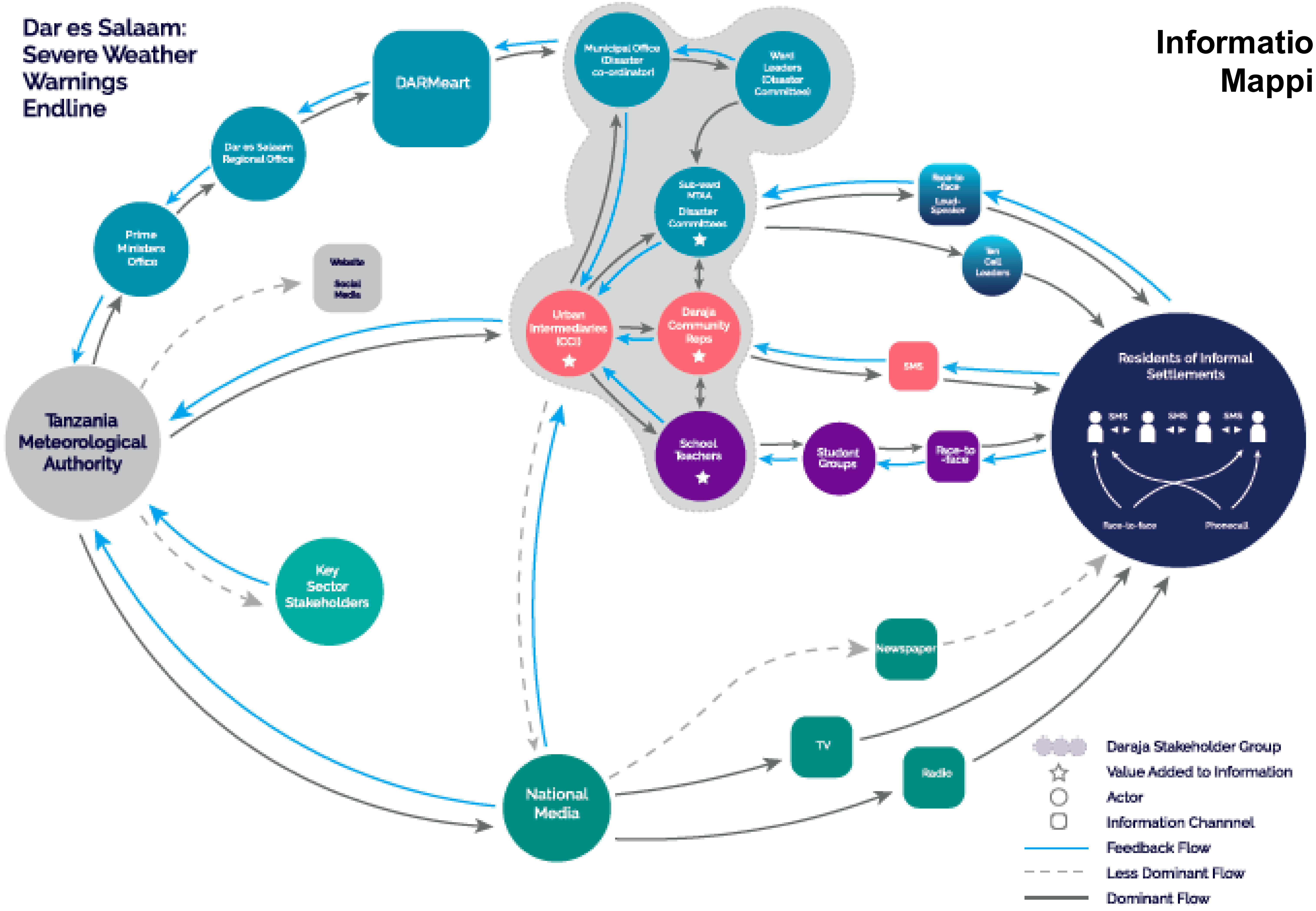
- Local Radio (Peak listening during commute)
- Religious Centers
- Community Boards

Case Study: BBC Media Action in Bangladesh

- **Program:** “Amrai Pari” (Together We Can Do It)
- **Strategy:** Reality TV showcasing community solutions.
- **Why it worked:** leveraged the fact that 90% of the population has TV access.

Dar es Salaam: Severe Weather Warnings Endline

Information Ecosystem Mapping (IEM)



PILLAR 1: ACCESS – THE HUMAN LINK

Solving the 'Last Mile' Problem through Intermediaries

The Challenge: Technology often fails the most vulnerable due to cost, literacy, and complexity.

The Solution: Intermediaries
NGOs, social workers, and community leaders translate data into trust.

Case Study: Weather Mtaani (Kibera)
- Community leaders summarize weekly forecasts.
- Dissemination via SMS trees and physical meetings.
- Murals (right) act as static, always-on community billboards.

Actions Points:

- **Identify the most vulnerable population and potential caregiver groups**. Engage with them to determine the information needs, such as preferred format, channel, etc. of each type of vulnerable group.

- **Engage with targeted communities to identify the most effective channels** for communicating information to them rapidly and in a way they can understand easily.

- Assess the channels through which these population groups currently **access heat information or general weather-related information and identify what has worked well** and what has not worked well.

- Select and leverage **communication channels that have already proved successful** in reaching the communities to be targeted and identify any barriers to using them effectively.

- **Identify and enlist appropriate intermediary actors** who can communicate heat information within communities in an effective and timely manner.

- Select a **combination of channels and intermediaries that will serve all the vulnerable communities** effectively - but limit the number of overall channels to what is manageable by the city authority.

PILLAR 2: RELEVANCE – CONTEXT IS KING

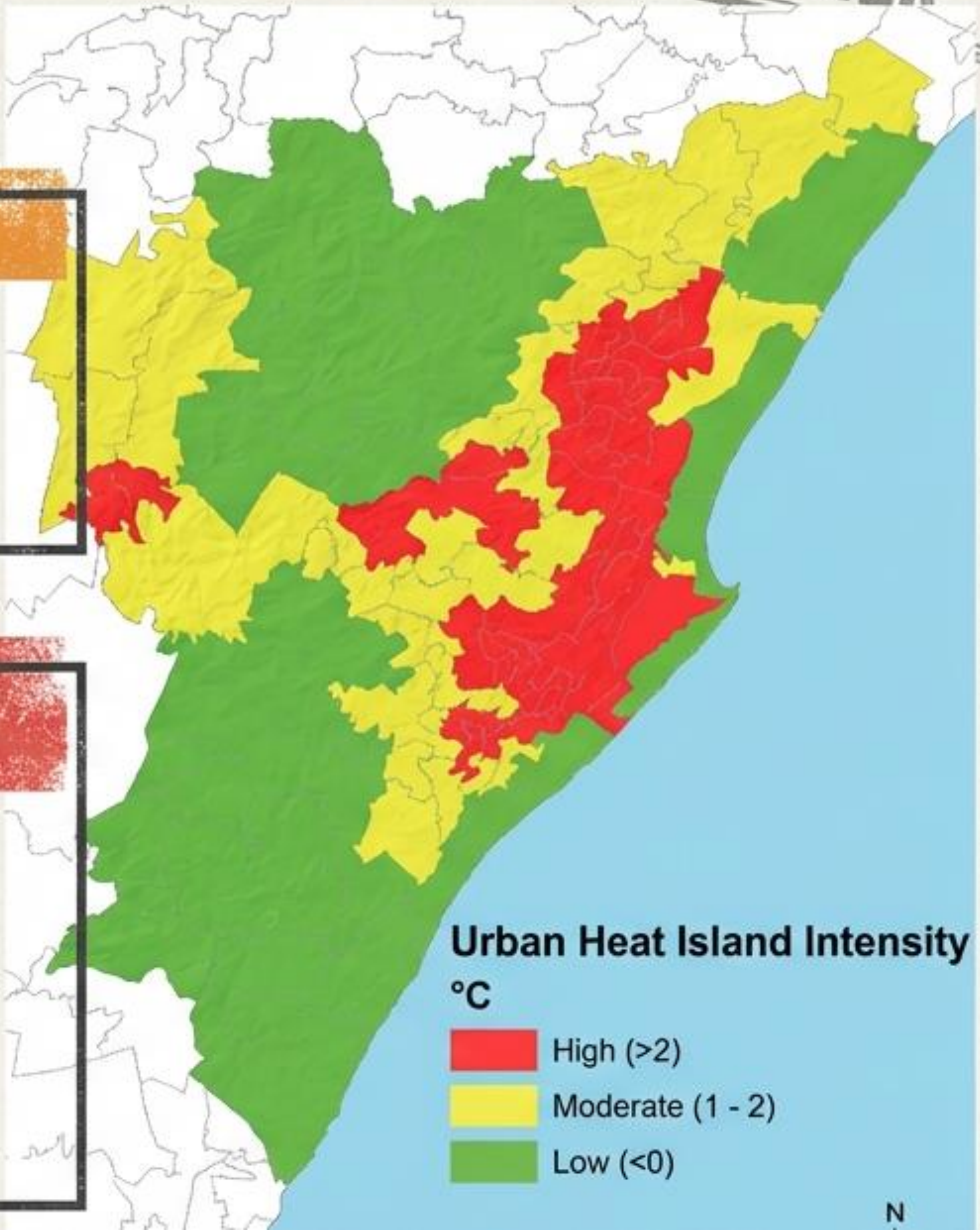
EMERGENC DOSSIER

From Meteorology to Impact-Based Forecasting

The Data Point: A city-wide forecast of 40°C feels different in a green suburb versus a dense informal settlement.

Impact-Based Forecasting:
Don't just report the weather. Report the impact.

- Metal sheet roofs trap heat.
- Lack of ventilation increases danger.
- Dense housing creates micro-heat islands.



Actions Points:

- Engage with the National Meteorological Service of your country, or your preferred weather information provider **to develop localised heat forecasts**. It is beneficial to include local communities and other relevant stakeholders in this process to ensure that the forecasting service is user-centric and inclusive.

- **Use heat and vulnerability maps and other information sources such as health data to identify the contexts** (spatial, financial, social, technological) of the most vulnerable populations. This can be done through collaborating with community intermediaries.

- **Develop advice messages that are specific to each context**. This enables the public to take relevant practical measures that are within their means.

PILLAR 3: UNDERSTANDING – DECODING THE SCIENCE

EMERGEN DOSSIER

Eliminating Jargon for Survival

Translation Table

Technical Jargon (The Meteorology)	Community Message (The Survival Guide)
High humidity levels expected.	Sweat won't dry. You will overheat faster.
Maintain hydration.	Drink water even before you feel thirsty.
Avoid peak solar exposure.	Stay in the shade between 12 PM and 3 PM.

Tool: The **Terminology Reference Guide** – A standardized glossary for intermediaries to ensure consistent messaging across languages.

Actions Points:

- Translate/develop heat forecasts and other relevant information into local language(s) of the population.
- Simplify the terminology that is used in heat information. Use simple and familiar words. If some technical jargon cannot be replaced, provide an explanation.
- Use a variety of channels and formats to communicate heat information to make it inclusive and accessible to all sectors of the city's population.
- Ensure that messaging is consistent with the cultural practices, lifestyle, and behaviours of local communities.
- Provide impact descriptions along with heat forecasts to help the public understand how the heat may affect them, enabling people to take appropriate action. All impact descriptions should be relevant to the local context.
- Co-develop impact descriptions with all stakeholders, including community members or representatives, to provide well-balanced impact descriptions that cover impacts across various sectors.
- Set up an inquiry mechanism around heat alerts, such as a multi-stakeholder press briefing and online inquiry form submissions, to give the media and community intermediaries the opportunity to seek clarifications and gain a deeper understanding of the impacts of the upcoming extreme heat event.

PILLAR 3: UNDERSTANDING – THE POWER OF VISUALS

EMERGENCY DOSSIER

For low-literacy populations, the image IS the message.

- Recognized local settings (housing types, street scenes).
- Actionable steps (Cool baths, loose clothing).
- Cultural accuracy (Attire and characters reflect the audience).

PILLAR 4: INFORMATION TO ACTION

The Tiered Warning System

EMERGENCY DOSSIER

PHASE 1: SEASONAL VIGILANCE	PHASE 2: OUTLOOK	PHASE 3: WATCH / WARNING
Time: Pre-Season	**Time:** 3-5 Days Out	**Time:** 24 Hours / Imminent
Actions: Retrofit homes, build awareness, repair cooling centers.	**Actions:** Prepare cooling centers, check on vulnerable neighbors.	**Actions:** Alter work hours, hydrate, stay indoors, activate emergency medical services.

THE ANATOMY OF AN ALERT (CAP)

EMERGENCY DOSSIER

The Common Alerting Protocol Standard

SHORT MESSAGE

The 4 Critical Components:

Forecast (What?),
Area (Where?),
Impact (So What?),
Action (Now What?)

Detailed Warning

1. **Forecast:** 42°C with high humidity.
2. **Area:** Central Business District & East Zone Slums.
3. **Impact:** Power cuts likely; high health risk for elderly.
4. **Action:** Stay indoors, visit cooling centers at [Location].

LONG MESSAGE

INNOVATIVE ENGAGEMENT: MAKING IT STICK

EMERGENCY DOSSIER

Edutainment helps recall during crisis.

Case Study:
The Delhi Flash Mob (2017)

- **Actor:** Indian Red Cross Society.
- **Action:** 15 volunteers performed in markets and traffic.
- **Message:** 'Rest, Rest, Rest' between 12 PM and 3 PM.
- **Result:** Messages were repeated verbatim by onlookers.

Takeaway: Use street theater, songs, and cultural events to bypass "warning fatigue".

Actions Points:

- Prepare a list of actions that the public can take to reduce the adverse impacts of extreme heat. Consolidate the key details of heat mitigation interventions including: a description of the intervention, who is providing the intervention, who it is targeted at, how it can be accessed by the targeted groups, when the intervention should begin and end, contact details, etc. Prepare IEC materials with this information to share with the public.

- Create a timeline of communication activities aligned with HAP activities and threshold triggers. For effective heat communication, i.e. the public is able to take actions in a timely manner and is successfully able to avoid or reduce heat impacts, the seasonal awareness outreach should begin before the start of the season and continue until the season’s end.

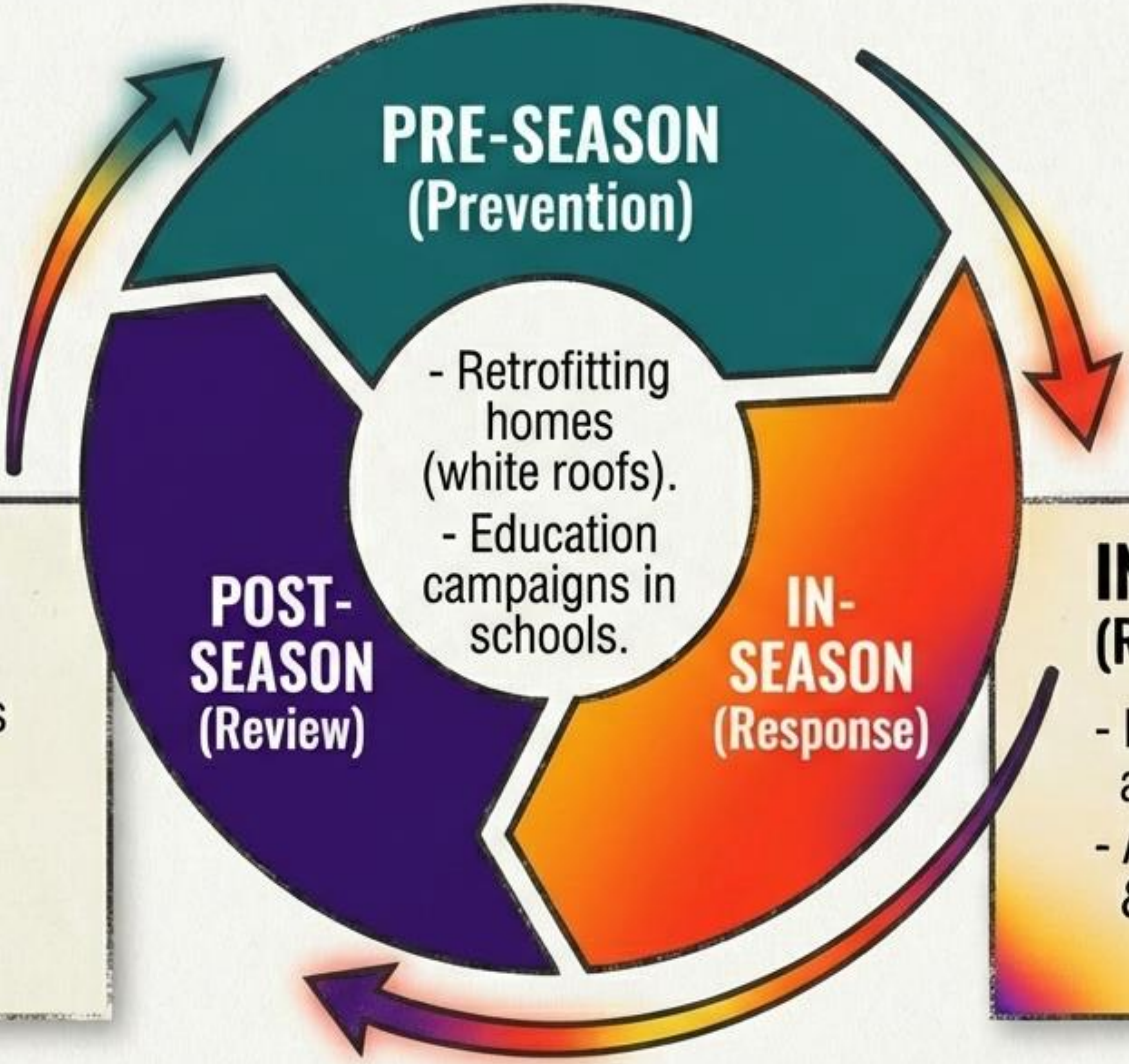
- Co-produce awareness messages and alert messages with key stakeholders such as public health agencies, key media, community organisations, etc. The content of alert message should focus on the following key types of information:
    - **a.** Weather forecast
    - **b.** Areas which will be most affected
    - **c.** Potential impacts
    - **d.** Advice on actions to take
    - **e.** Who to contact for further help and information

- Create long and short versions of an alert message to be used according to the limitations of various communication channels. Keep the message consistent across all channels.

- Gather feedback from the public on the effectiveness of heat communication. The feedback survey can be implemented in collaboration with community intermediaries using digital platforms. The resulting information should be used to improve the communication plan for the next extreme heat event or the next hot season.

THE SEASONAL CYCLE OF COMMUNICATION

EMERGENCY DOSSIER



POST-SEASON
(Review)

- Feedback Loops: Surveys & Focus Groups.
- Assessing if messages were understood.
- Refining the plan.

IN-SEASON
(Response)

- Issuing Outlooks, Watches, and Warnings.
- Activating cooling centers & water distribution.

THE POLICYMAKER'S CHECKLIST

EMERGENCY DOSSIER

IMMEDIATE ACTIONS:

- ☐ **IDENTIFY** vulnerable groups and their preferred channels.
- ☐ **MAP** heat islands and high-risk zones.
- ☐ **CO-PRODUCE** message templates with community intermediaries.
- ☐ **TRANSLATE** technical terms into local languages.
- ☐ **ESTABLISH** an inquiry mechanism for media clarification.
- ☐ **PLAN** seasonal services (cooling centers) and link them to alerts.