Marga und Walter Boll-Stiftung

VOLKSWAGEN AKTIENGESELLSCHAFT

german humanitarian assistance
DEUTSCHE HUMANITÄRE HILFE

IMHEN

German Red Cross

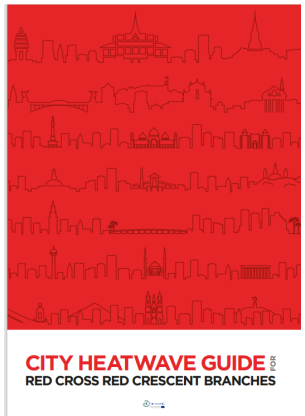
A Low cost, Anticipatory and Sciences-Based Approach to Reduce Heat Health Impacts on Outdoor Workers in Vietnam

Forecast based Financing

Red Cross Red Crescent Perspective on Heatwaves

Francesco Rocca – IFRC President defines heatwave as a “silent emergency”,

“that is unacceptable about this silent emergency is that simple, low-cost actions …… can save lives during episodes of extreme heat”



Heatwave guide for Red Cross and Red Crescent Branches

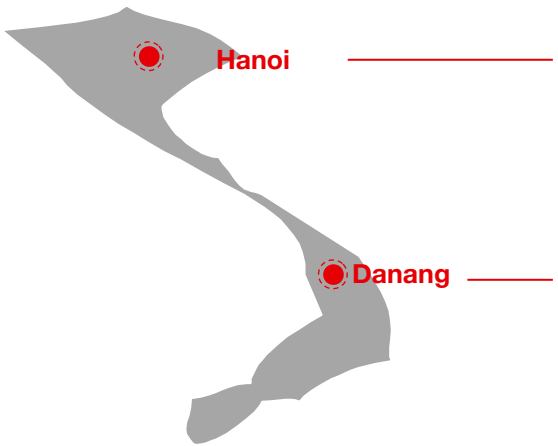
Vietnam Case study – A low cost, anticipatory and sciences-based approach

German Red Cross

OUTLINES

Rational
Our Standing point & Approach
Tests
Results
Learnings
Conclusion and Reflection

Rational – Literature Review & Stakeholder Analysis



IMPACTS & AWARENSS:

- Heatwave events are associated with 20% increase in hospitalization for all causes and 45.9% for respiratory diseases

- Less than 1% of outdoor workers have sufficient knowledge on heat stress

POLICY & GAPS:

- Vietnam Disaster Management Authorities list *heat wave as a disaster*

- Vietnamese Ministry of Health regulations to protect workers from extreme heat: *rarely enforced in the informal economy*

- Key stakeholders: interest in working on the issue of heat and health but *no major program*

German Red Cross

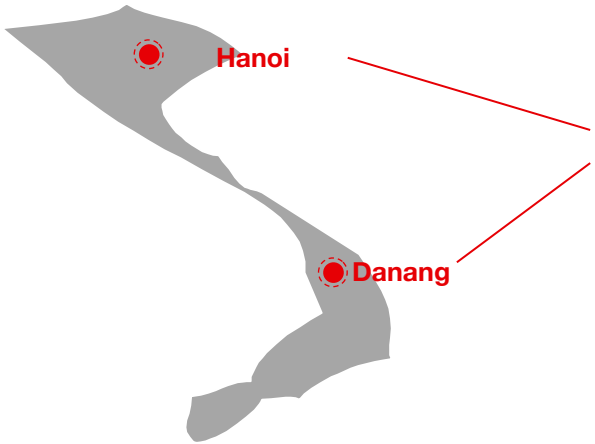
Rational – Knowledge Attitude and Practice Surveys

1,621ou

German Red Cross

Rational – Knowledge Attitude and Practice Surveys

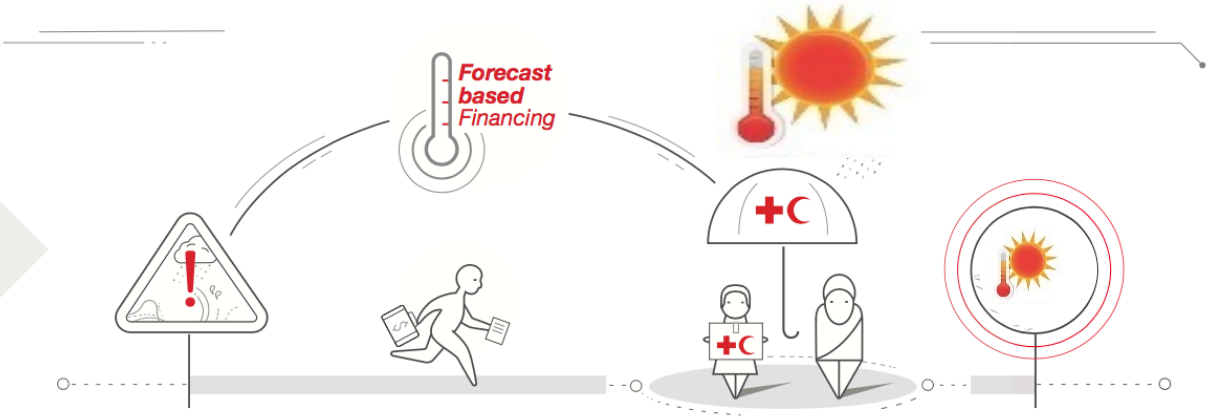
RESULTS: outdoor workers are very exposed to heatwave risks (long working hours, no access to air conditioning during day and night, inappropriate insulation of their housing)



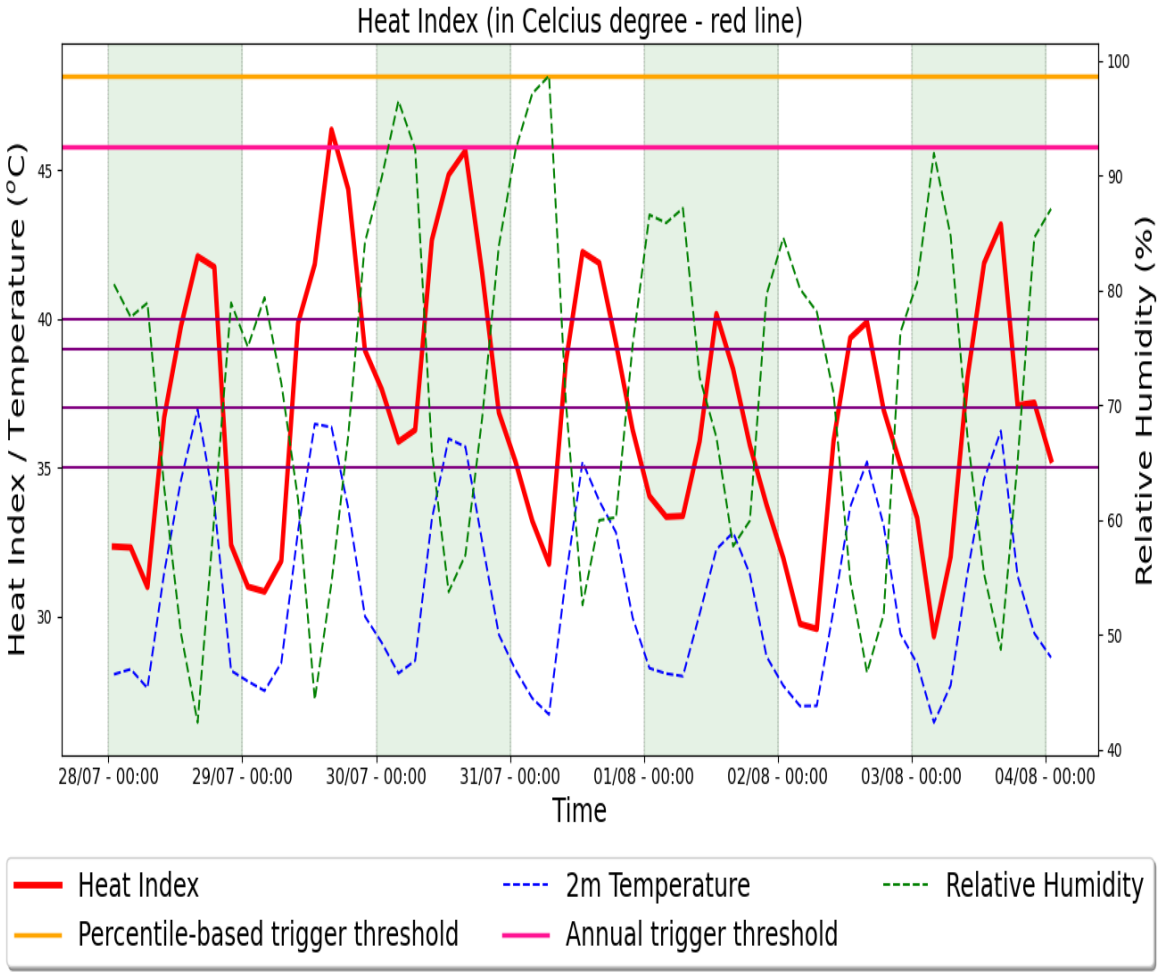
- 66% of the target population experienced from 4 to 7 symptoms of heat exhaustion during a heatwave
- Average number of symptoms = 5.3
- 21.5% of the target population go to doctor during heatwave and their healthcare expenses amount to 2 days of their daily income

Our Approach:

Our Standing Point:
- Efficient, low cost and rapid actions
- Anticipation rather than post disaster response



Forecast-Based-Financing (FBF) approach automatically releases funding when an extreme heat wave is forecasted allowing the activation of Early Actions (EA).



German Red Cross

TRIGGER 1 is reached (6 days lead-time) = the red line reaches the orange line for at least 2 consecutive days

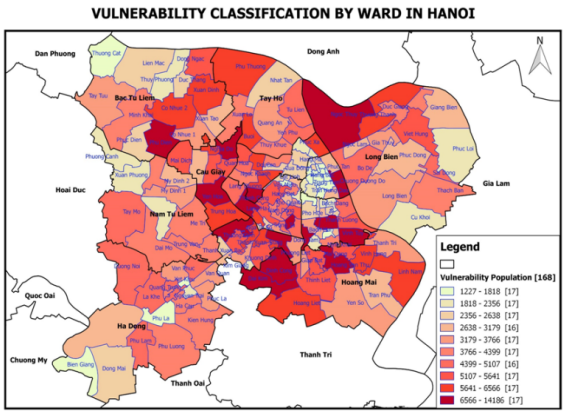
EARLY WARNING:
Warning email automatically sent to VNRC Focal person

TRIGGER 2 is reached (3 days lead-time) = the red line still reaches the orange line for at least 2 consecutive days

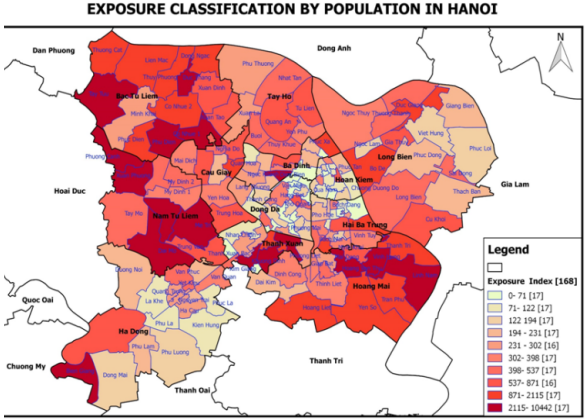
TRIGGER TO ACT:
Warning email automatically sent to VNRC Focal person
Funds released
Early Actions Implementation

Targeting Beneficiaries – Impact Forecast Mapping

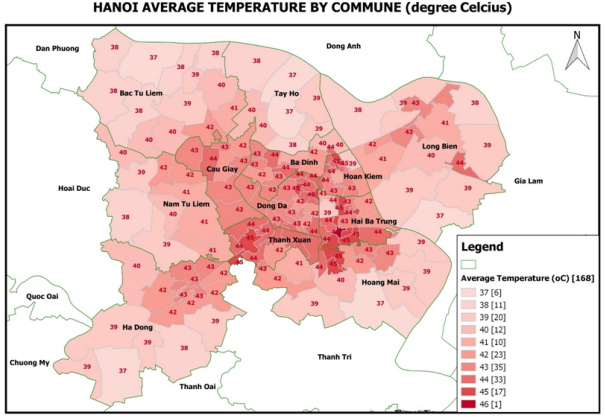
Vulnerability



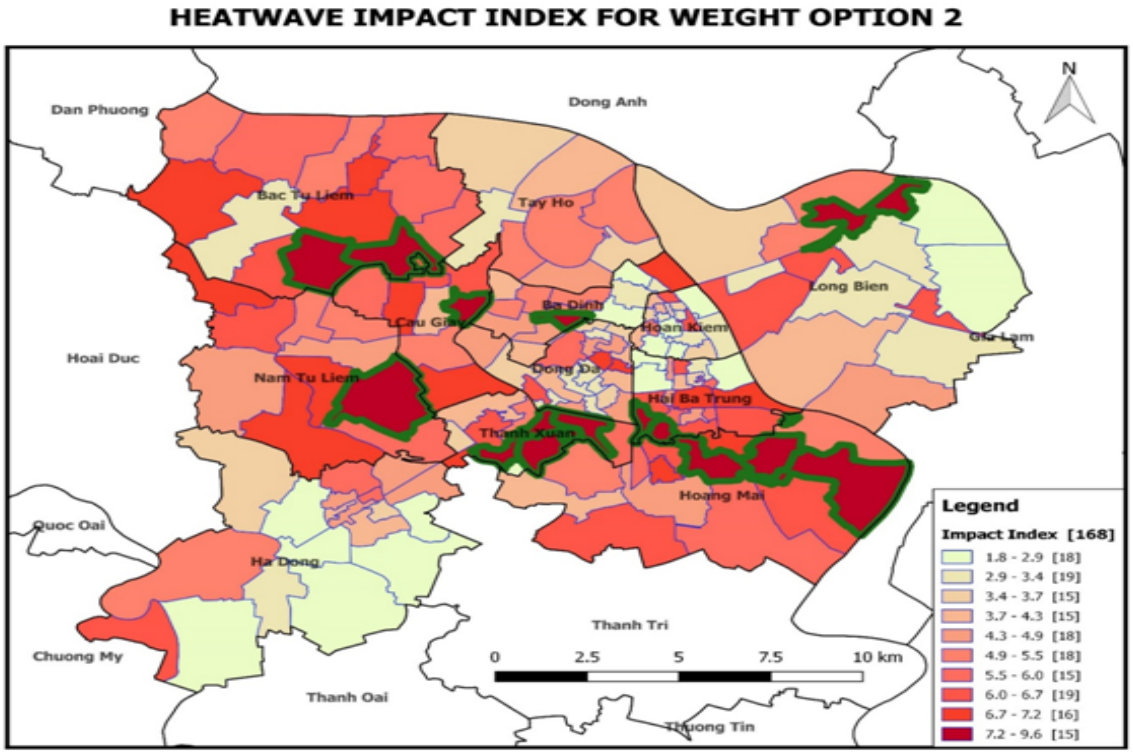
Exposure



Hazard



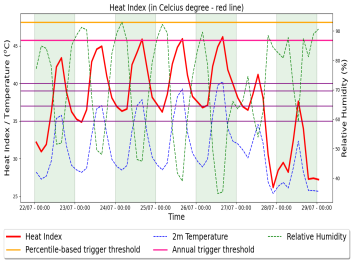
Targeting Beneficiaries – Impact Forecast Mapping



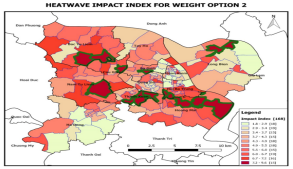
Hanoi´s intervention map

In green the 10% most at risk wards (compilation of Exposure, Vulnerability and hazard layers)

Early Actions Selection



Identification of trigger with 6 and 3 days lead-time



Impacts Forecast Mapping

Impacts assessment (KAP Survey) : Health Impacts

Theory of Change

PROBLEM:

The slum dwellers and outdoor workers never have a chance to find relief from heat during day and night, due to their livelihood (in the streets) and the place they live in (slum)

SOLUTION:

WELL - ADAPTED EARLY ACTIONS

- **EA 1**: Operating community cooling centres during day
- **EA 2**: Retrofitting of habitations in slums

German Red Cross

Early Actions Tests

RETROFITTING:

- Not feasible to retrofit habitations in informal settlements within a 6 days lead time
- Main challenge = access to slum and authorization for building temporary roof
- Socially accepted by the inhabitants but not by the authorities & owners

COOLING CENTRES:

- Two tests: 18th to the 21st of July and 11th to the 14th of August 2019, Hanoi
- Heat Indexes peaking at 47.5 ○C and 48○C = 95th percentile reached
- 4 centres and 3 buses
- The tests looked at the Feasibility, Relevance, Effectiveness, Social acceptability and Value for money/efficiency

Short movie on Early Action Test

German Red Cross

Early Actions Tests - Results

COOLING CENTRES:

- *Feasibility:* 100% of activities implemented within timeframe.

- *Relevance:* 80% of the visitors were outdoor workers experiencing symptoms of heat exhaustion.

- *Effectiveness:*

  Outcome 1: Outdoor workers had good rest against a long day of exposure to heat:

  ✓ 10°C cooler in centres than the outside

  ✓ 1787 visits: between 70.5% and 95% of visitors feel better after their visit

  Outcome 2: Outdoor workers understand the importance of resting during the heatwave event:

  ✓ 73% visited the centres for the right purpose

  ✓ 67% stayed at least 10 minutes

  ✓ More than 40% of the beneficiaries returned to the centres

- *Social acceptability:*

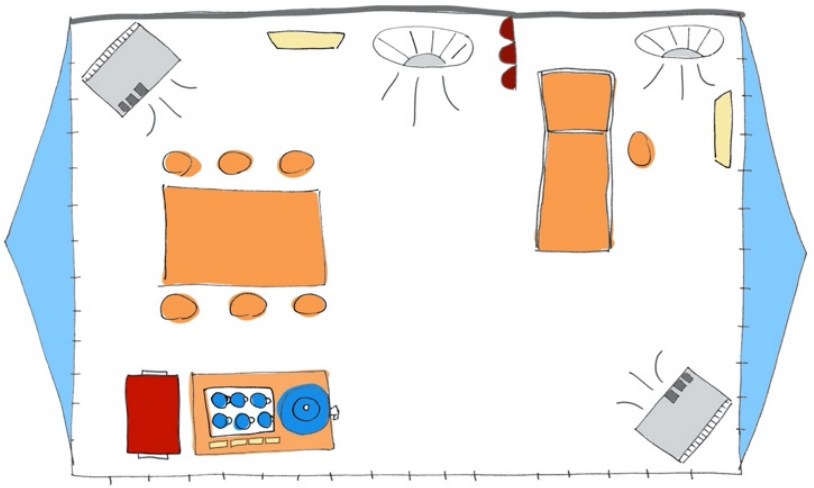
  ✓ Media coverage & Broad social acceptability

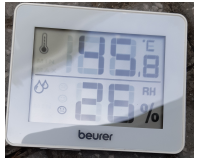
  ✓ Well accepted by the authorities

- *Value for money/efficiency:* The cost per visit was small (around 7 euro per visit).

German Red Cross

Learnings





OUTSIDE Temperature

INSIDE Temperature

German Red Cross

Standing Operating Procedure for Cooling Centres

1 Invite the beneficiary to seat

2 Invite the beneficiary to open/ loosen clothes, fold up the sleeves, remove hat

3 Offer water, tea
Give cold towel to the beneficiary, demonstrate how to use the towel (face, neck, armpit…)

4 Assess the beneficiary Health status using assessment card

5 Distribute the IEC fan, explain the symptoms of heat-related illness, how to deal with and prevent them

6 Give the water container (filled with cool water) to the beneficiary

7 Guide the beneficiary to the volunteer surveyor: sign the beneficiary list, complete the questionnaire, invite to follow Facebook page

German Red Cross

Beneficiary

Has symptom(s)?

Has emergency sign(s)?

No

No

Perform tasks 5, 6, 7

Symptoms:

Feeling dizzy or giddy
Feeling faint, ‘seeing stars’
Feeling weak
Cramps in lower limbs
Numbness

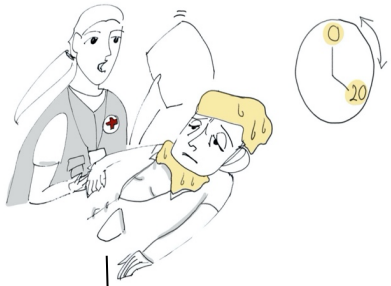
Emergency Signs:

Loss of movements control,
Coma,
Confusion,
Convulsion,
Vomiting and stomach pain,
Chest pain,
Difficulty to breath,
Hyperventilation

Beneficiary

Has symptom(s)?

Yes

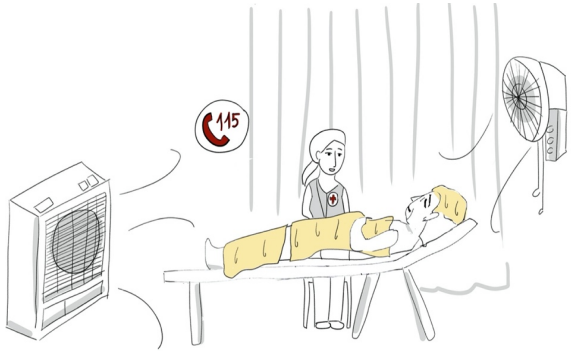


Symptom(s) still present after 20 mins?

No

Perform tasks 5, 6, 7

Yes

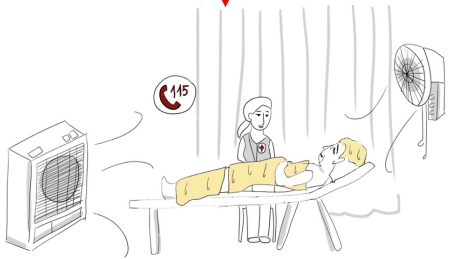


German Red Cross

Beneficiary

Has emergency sign(s)?

Yes



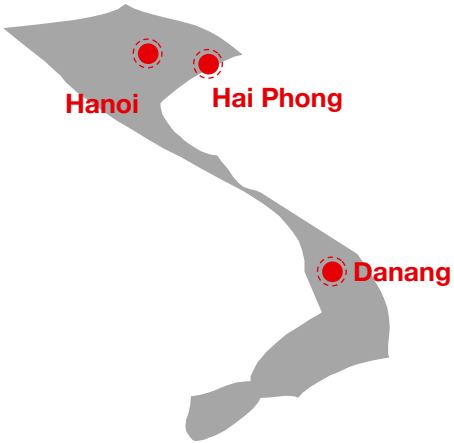
Has breathing cessation, cardiac arrest?

Yes

Perform CPR

German Red Cross

Scaling Up



- *Feasibility Study in 12 cities of Vietnam*
- *3 cities selected: Hanoi, Hai Phong, Danang*
- *29 centres, 15 buses, visit of 4 slums*
- *Up to 25,000 beneficiaries*

German Red Cross

Conclusion / Reflection:

Key outcomes

- ➢ *Sciences / forecasting capacity enhancement in Vietnam: Heat Index Vs Tmax*
- ➢ *Efficient Collaboration sciences / humanitarian sector:*
  - *VNRC, GRC and IMHEN for trigger development (1 publication in Climate Services Journal)*
  - *GRC and National University of Singapore for Standing Operating Procedure development*

- ➢ *Replication / Approach Integration into local VNRC branch*
- ➢ *Acceptability / Visibility: media coverage & increased visibility on H&H issues*

Reflection
Red Cross Movement
- End-users of scientific knowledge on Heat and health and Forecast: put knowledge into practice
AND
- Key contributor to the global learning on H&H
  - *Ability to reach the most vulnerable*
  - *Knowledge of local context*
  - *Collect disaggregated data*

Marga und Walter Boll-Stiftung

VOLKSWAGEN AKTIENGESELLSCHAFT

german humanitarian assistance
DEUTSCHE HUMANITÄRE HILFE

German Red Cross

THANK YOU

www.forecast-based-financing.org
“FbF ready” Newsletter