

The ultimate goal of people-centred early warning systems is to “empower individuals and communities threatened by hazards to act in sufficient time and in an appropriate manner to reduce the possibility of personal injury and loss of life”
UNISDR

giz

Capacity Building in Local Communities



Bundesministerium
für Bildung
und Forschung



Michael Siebert (GIZ, Eschborn)

Alexander Kesper (CIM, Bali)

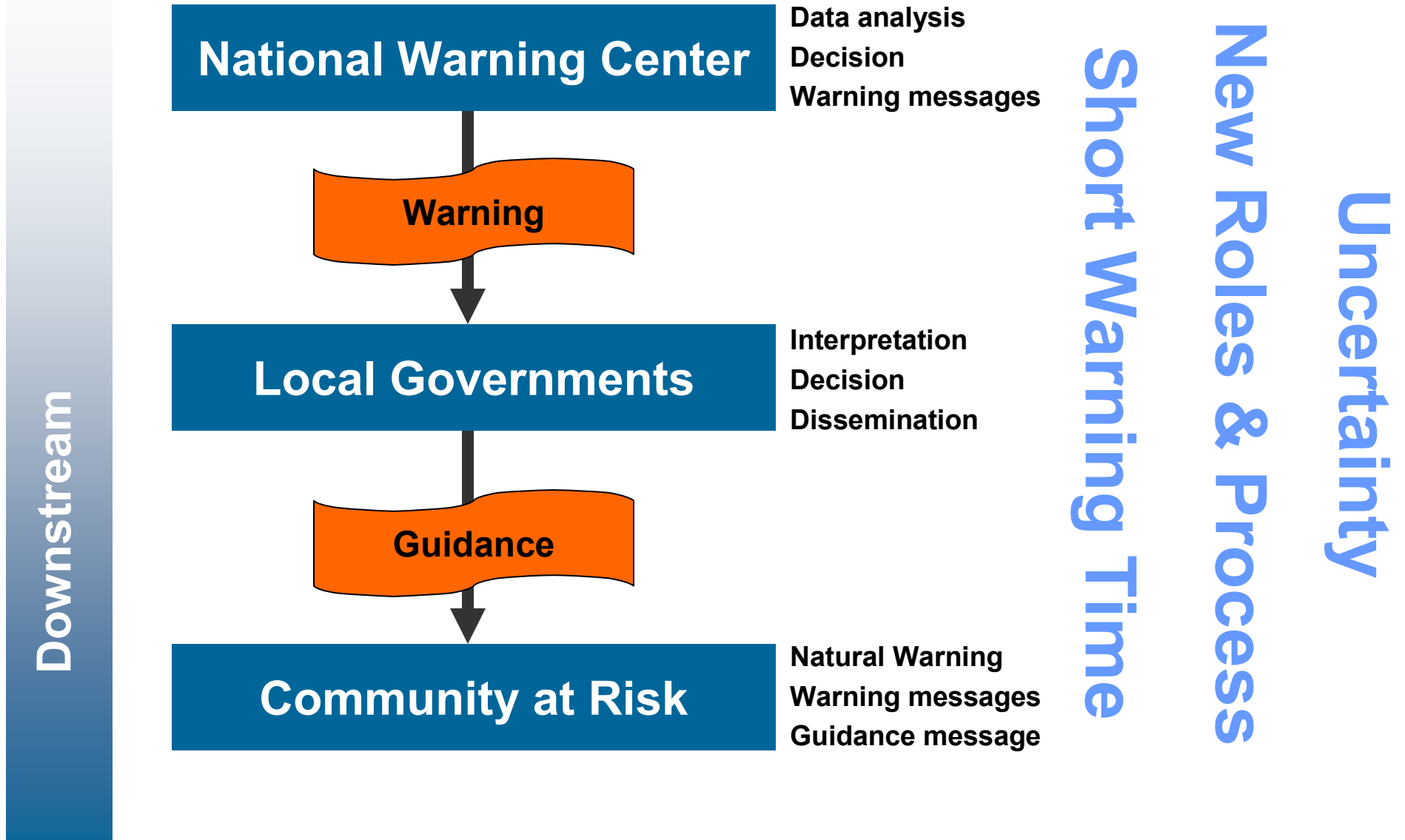
Harald Spahn (GIZ-IS, Jakarta)

May 2011

1. THE PROJECT

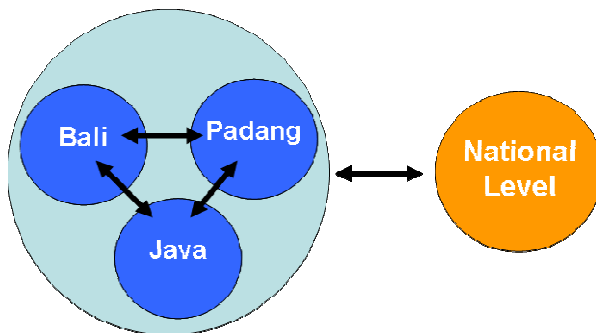
InaTEWS

Big challenges for the communities



“Capacity Building in Local Communities”

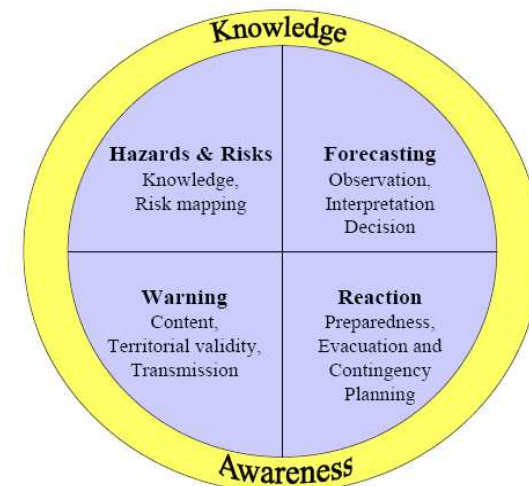
- As part of the **Capacity Building WP** of GITEWS
- Jun 2006 – Dec 2010
- **Objective:** “Warning and disaster preparedness mechanisms are developed on the basis of up to 3 pilot areas”
- **Co-Funding** from AusAID
- **3 Pilot Areas:** Padang, South Java, Bali

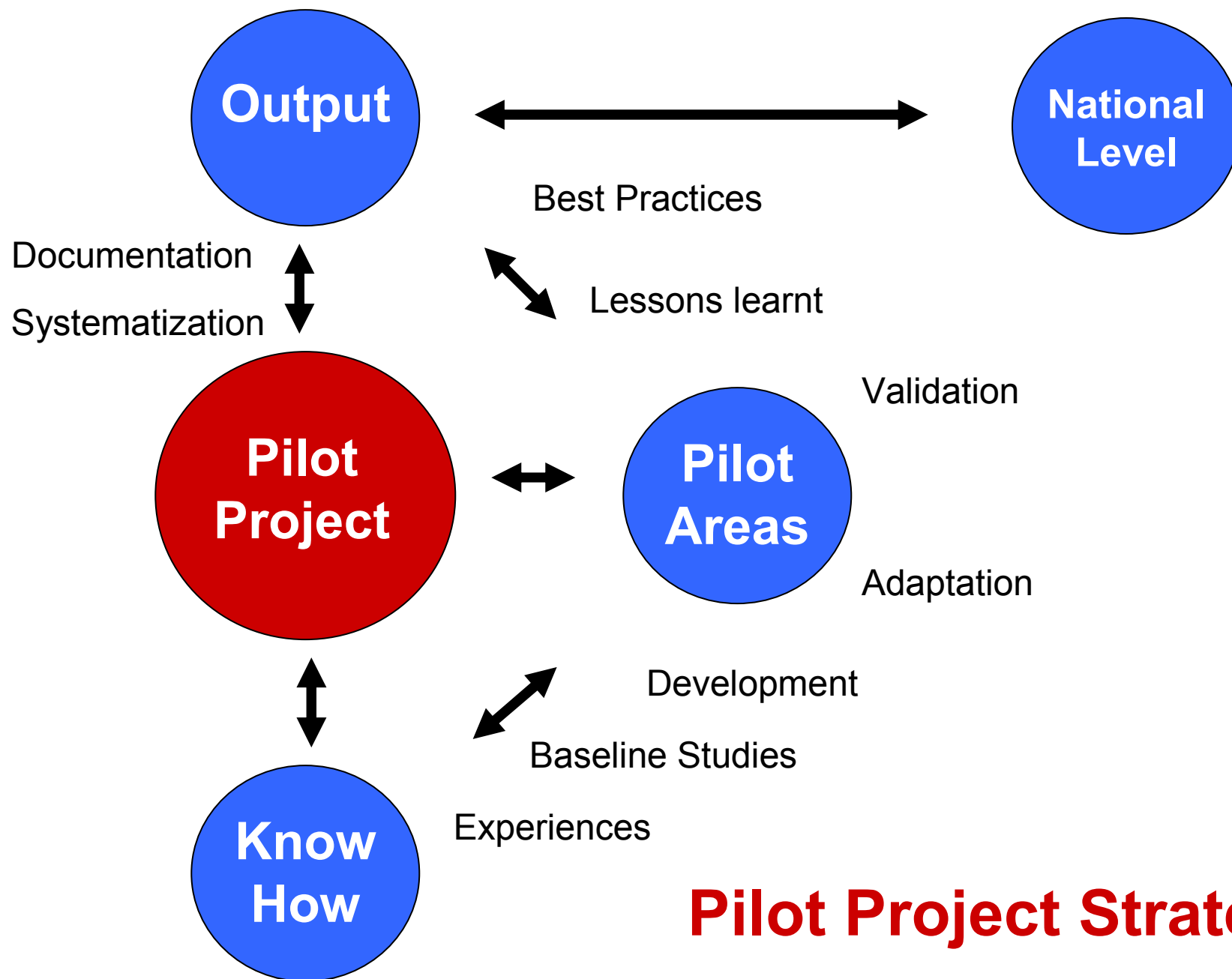


Implemented by GTZ-IS Team and it's partners:

- National partners: RISTEK, LIPI
- Local partners in 3 Pilot Areas (Padang City / Bantul, Cilacap & Kebumen Districts / Badung District and Province of Bali)

Based on **UNISDR** concept of EW





Pilot Project Strategy

GITEWS

Pilot Areas

PADANG
City (2006)

GTZ Project Office

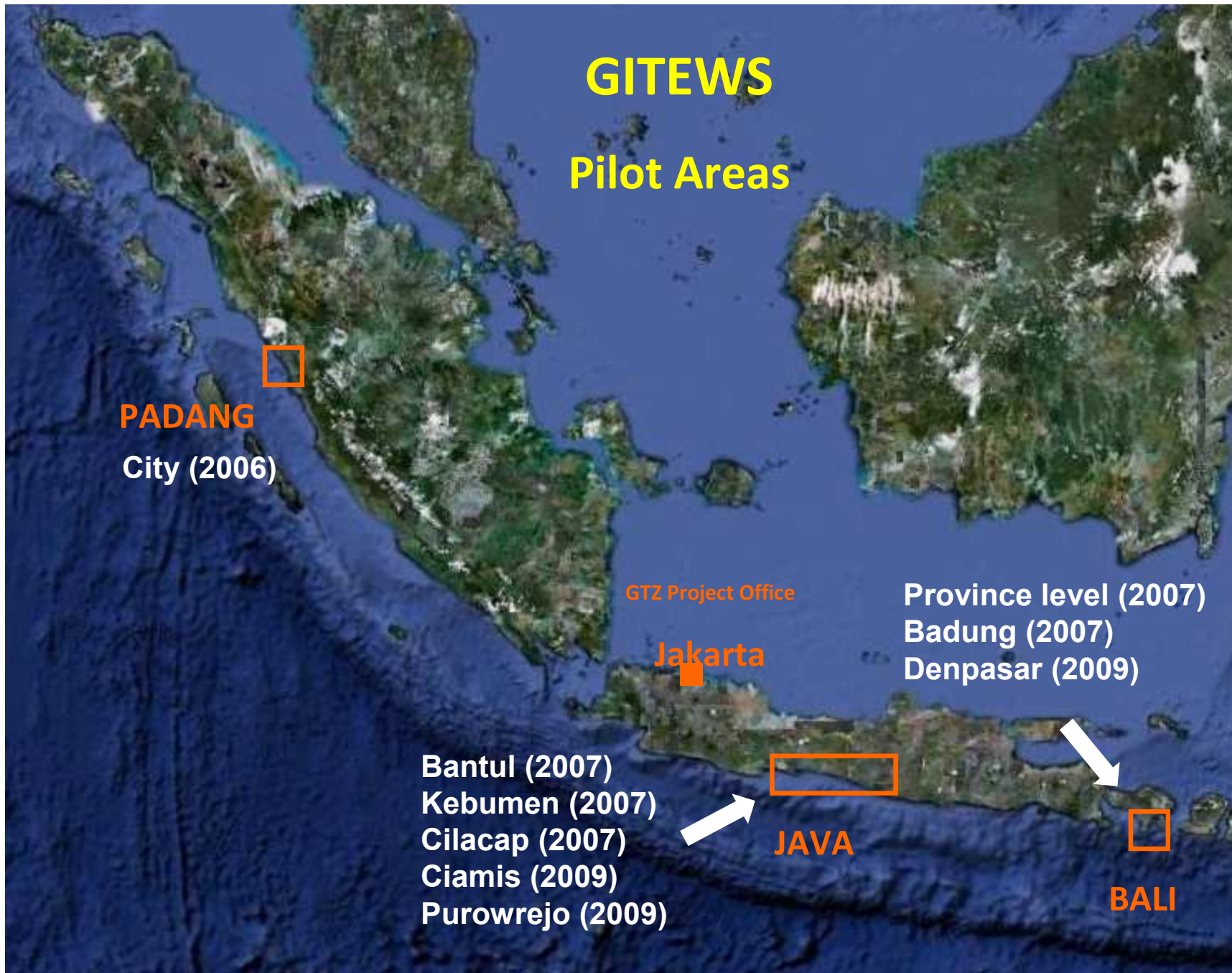
Jakarta

Province level (2007)
Badung (2007)
Denpasar (2009)

Bantul (2007)
Kebumen (2007)
Cilacap (2007)
Ciamis (2009)
Purowrejo (2009)

JAVA

BALI

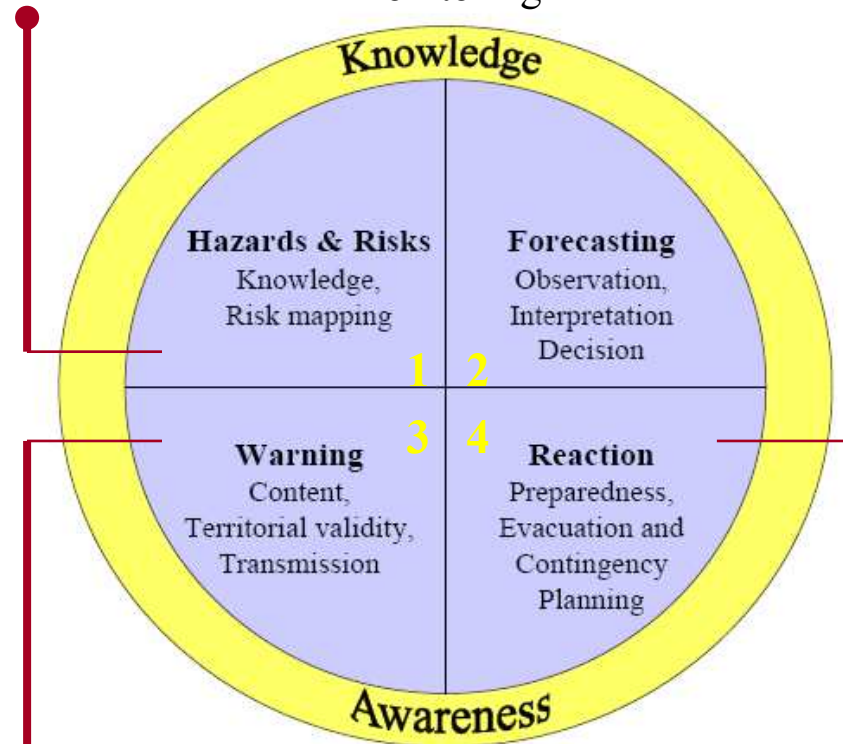


2. TOPICS AND RESULTS

The Topics

Checklist

Assessment, planning,
monitoring



Hazard Mapping

Method developed in PA Java

Science meets

Politics

Padang & Bali

Warning Chain

Link national - local

Decision Making

“Local 24 / 7”

SOPs

Warning Dissemination

Dissemination

Technology

Local networks, FM-RDS

Trainings

Workshops, DAPS,
Community facilitators

Awareness Materials

Comics, Poster, Videos,
Booklets, Leaflets

Evacuation

Planning

Based on Risk Analysis

Contingency

Planning

Part of multi hazard
approach

Tsunami Simulation

Exercises

Local exercises, support
of end to end drills

Pilot Area Padang

Risk
Knowledge

Warning
Dissemination

Response
Capacity

Knowledge &
Awareness

Institutional
Arrangements

- Tsunami Hazard Map: Padang Consensus
- Padang Emergency Operation Center
- SOP for decision making
- Training and equipment for EOC
- Mosque loudspeaker, RABAB
- PADANG SOP: combining reaction to natural warning signs and InaTEWS
- Ongoing: evacuation planning for Padang City
- Support of KOGAMI
- Ongoing: training of community awareness facilitators
- Draft local legal regulations
- Support of BPBD
- Support integration of disaster risk aspects into spatial planning



Linking local and national level

The “Exchange Program”

- **Inter-district cooperation:** learning by cross visits between Pilot Areas - how to develop and implement mechanism & procedures for Tsunami Early Warning on community level
- **Networking:** *Forum Tsunami* in Java, tourism areas in Bali and Pangandaran
- **Local to National:** visits from representatives from Pilot Areas to NTWC and BNPB – sharing local experiences, clarifying the warning chain and roles & responsibilities



Knowledge & Awareness

Building awareness and expertise among key actors of the warning system

- Exchange program
- Training for Disaster Awareness in Primary School (DAPS)
- Training of PUSDALOPS staff
- Documentary: community awareness campaigns

Increasing public knowledge and awareness of the tsunami risk and InaTEWS

- Training of local facilitators and support of community awareness campaigns
- Production of outreach materials
- Reprint of educative materials
- Support of disaster preparedness exhibitions



TSUNAMIKit

Compilation of Project Outputs and Experiences

- Background information
 - Checklist
 - Tools / Manuals / Guidelines
 - Fact Sheets
 - Further Resources
-
- **Bilingual / hard copy and digital / web-based**

www.gitews.org/tsunami-kit

online by November 2010



Manuals & Guidelines

- **National guideline for the Indonesian tsunami early warning service** (developed jointly with BMKG and reviewed by local and national stakeholders – ongoing process)
- Guidebooks for **tsunami hazard mapping** and **tsunami evacuation planning** at (sub)district level
- Manuals for **community outreach & school preparedness**
- Guidebook on **local tsunami warning dissemination technologies**

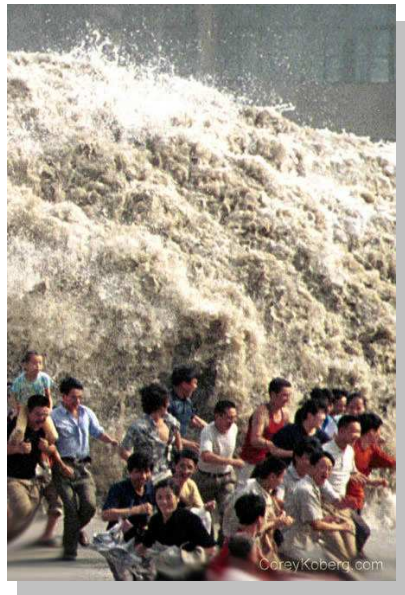


Tsunami Preparedness of Bali's Hotel Industry



Goal

- Provision of timely and targeted tsunami early warnings as an aid for evacuation decisions of major Bali hotels.



BHA – BMG Tsunami Early Warning Service

Information Source

- BMG GSM RANET Technology
- GTZ - GITEWS Decision Making Matrix and Operators Training

Cost

- Ca. 1600 USD

BHA Service

- Provision of targeted Tsunami Warning SMS and evacuation recommendation for the hotel industry
- No liabilities/Disclaimer
- Each hotel can register one hp number



Back Up Integrated Police Radio Community [IPRC]

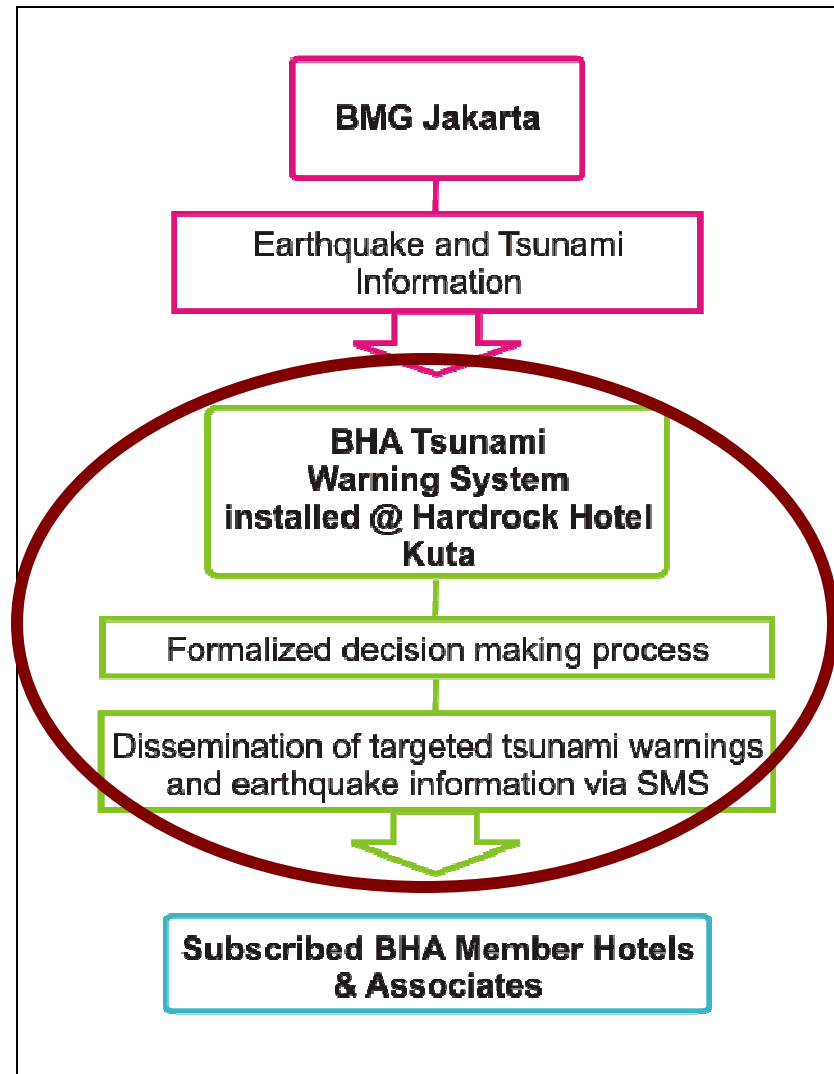
- UHF technology
- Provides reliable 24/7 emergency communications to all members
- Covers South Bali from Bukit to Ubud to Tabanan
- Hardware financed by private sector [BHA]
- Day to day operations by POLSEK Kuta/IPRC
- 24/7 direct access to police services
- Model for Jakarta and other parts of Indonesia



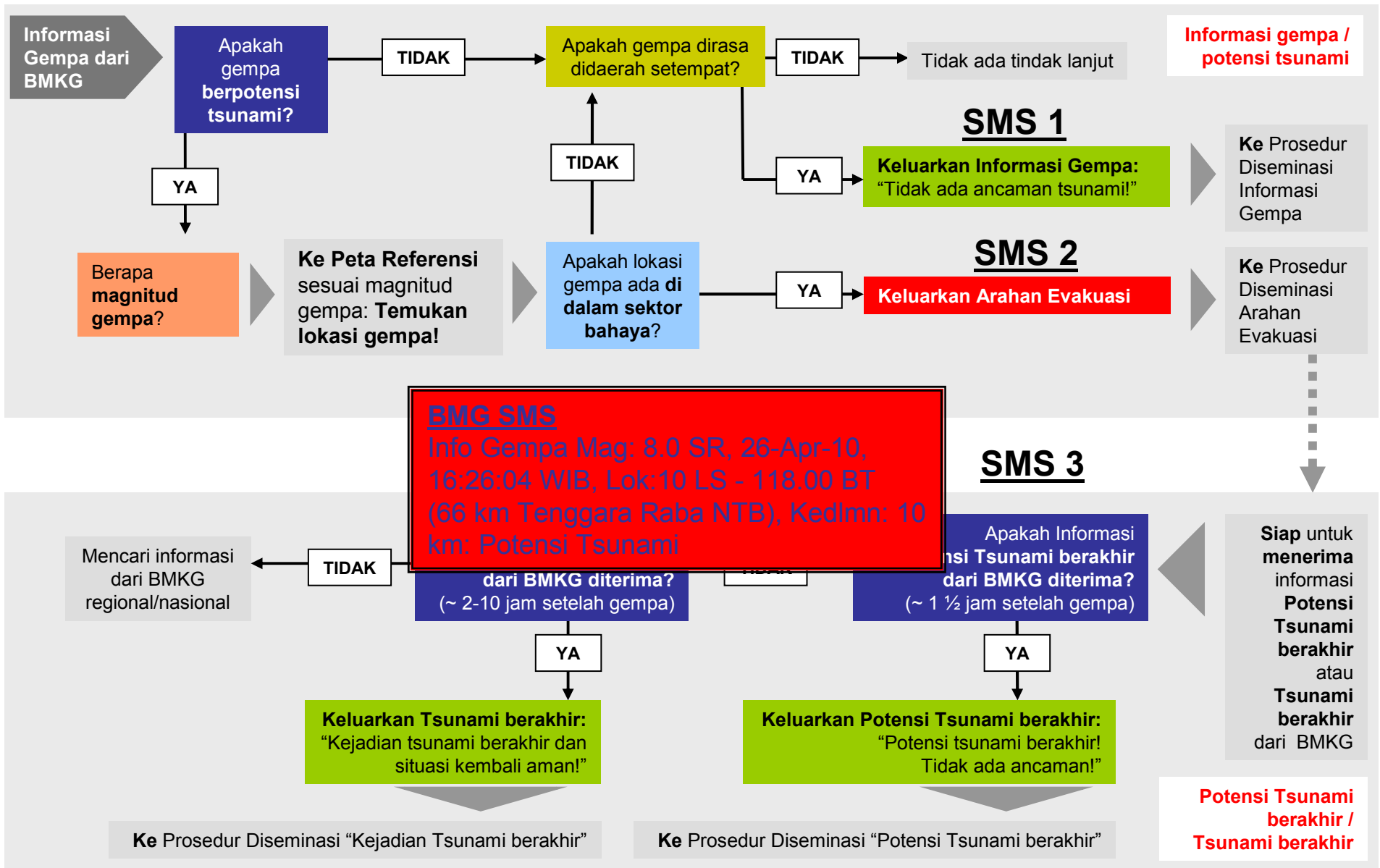
In General...

- Hotels are encouraged to set-up an individual emergency phone which is being kept at a place with 24/7 attendance and decision making power.
- System subscribers registers two numbers on a disclaimer form, freeing BHA from any liabilities arising from human or technical error.
- To date BHA tsunami warnings reach 76 hotels, contributing to the safety of approximately 20.000 hotel employees plus guests.

Information Flow



Prosedur Standard Pengambilan Keputusan: Informasi gempa / Pembatalan / All Clear



Peta Referensi Mag 7,6 - 8,0 SR

Apakah magnitud gempa antara 7,6 dan 8,0 SR?

YA

TIDAK

Ke Peta Referensi yang sesuai dengan magnitud gempa

BHA Tsunami Warning
Time: 16:26 WIB
Magnitude: 8
Evacuation is strongly recommended.
BHA will inform you once the danger is over.

Keputusan

BMG SMS

Info Gempa Mag: 8.0 SR, 26-Apr-10,
16:26:04 WIB, Lok:10 LS - 118.00 BT
(66 km Tenggara Raba NTB), Kedlmn: 10
km: Potensi Tsunami

Sektor Bahaya

110°

111°

112°

113°

114°

115°

116°

117°

118°

119°

07°

08°

09°

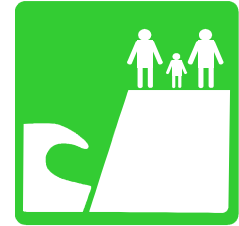
10°

11°





Action



- BHA ensures that its tsunami warnings are not just received but also **translated into action**.
- The '**Tsunami Ready Toolbox**' a joint development of BHA, BUDPAR and CIM is the basis for the tsunami readiness of BHA hotels.
- **Downloads** free of charge
- Complimentary 'Tsunami Ready' **Seminars**

Tsunami Ready Toolbox



- The 'Tsunami Ready Toolbox' is geared to assist hotels to prepare for tsunamis.
- An initiative of Bali Hotels Association and the Ministry of Culture and Tourism
- Consists of check lists, background information, templates, and best practice examples.
- As a “living document ” it is updated on a regular basis.
- A comprehensive check list at the beginning of the toolbox allows the user to conduct a self assessment of his/her own state of preparedness
- Supported by BUDPAR, a 'Tsunami Ready' course, created on the basis of the toolbox is offered free of charge to hotels and hotel associations throughout the country from Banda Aceh to Papua
- The 'Tsunami Ready' Initiative of BUDPAR and BHA has been selected as a good practice example for 'Public Private Partnership in Disaster Risk Reduction' by the United Nations branch ' International Strategy for Disaster Reduction (ISDR).

Institutionalization: Who takes care of the “Last Mile”?

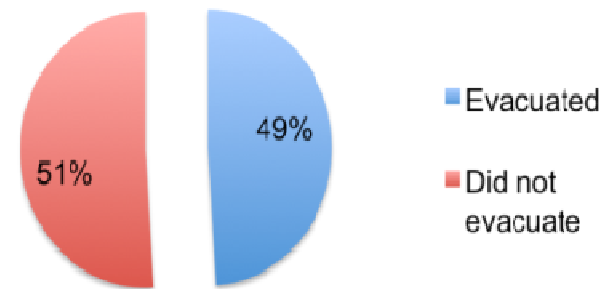
Major challenges for InaTEWS’ effectiveness:

- fully integrate the system into a comprehensive disaster risk management in Indonesia
- further development of institutional capacities for early warning and risk management at both national and local levels (in all tsunami prone regions of Indonesia)
- raising people’s awareness about their tsunami risk and effective ways to respond to it.

Padang Case Study (EQ Sep 2009):

The information from BMKG reached the authorities in Padang within 5 minutes of the earthquake

People in Risk Areas: almost no access to official information in the first 30 minutes



Marketing

- The tsunami warning system provides BHA member hotels with a **comparative advantage** over other hotels.
- Tsunami readiness was identified as a marketing tool, adding **extra value**, motivation and **sustainability** to the initiative.

Terima Kasih



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