

The BHA Tsunami Early Warning Service

Fast, reliable and targeted information for Balis' Hotel Industry

BACKGROUND

The Bali Hotels Association [BHA] is an association of over 100 star rated hotels in Bali. The association takes security and safety issues serious and is active in a wide range of areas, from counter terrorism to crime prevention to natural disaster preparedness. In its endeavors to improve the security situation in Bali as one of Indonesia's major tourism icons BHA is supported by the Indonesian Ministry of Culture and Tourism [BUDPAR] through the deployment of a CIM [Centre for International Migration and Development] integrated expert. The expert drives numerous public private partnership security sector initiatives geared to benefit Indonesia as a safe and sustainable tourism destination.

THE CHALLENGE

Indonesia is a geological very active country. Earthquakes are a common reminder of the volcanic origin of a majority of its 17,000 islands. Indonesia is also prone to tsunamis. Badan Geologi dan Geofisika [BMKG] in Jakarta is charged to generate and disseminate adequate and timely tsunami early warnings for Indonesia. Tsunami warning sirens are deployed on some of Indonesia's major beach locations. However the dissemination of the tsunami information to the community at risk remains a challenge since official decision making processes are still suboptimal and timely and targeted warning dissemination still questionable.

To date, the major tsunami information source is the media,- TV and radio. However since most tsunamis are triggered by earthquakes the reliability of these technologies is questionable. Evacuation orders are only provided by local administrations. Most administrations are not ready for this task.

This situation poses a threat to Bali's tourism industry which is mainly concentrated on Bali's Southern shores. Most Indonesian tsunamis are generated close to coast. Between the initiating earthquake and the arrival of the wave often only very little time remains.

GOAL

Provision of timely and targeted tsunami early warnings as a basis for evacuation decisions of major Bali hotels.

SOLUTION & RESULTS

BHA purchased a RANET technology based 5 in 1 communications system from BMG in Jakarta. The system receives tsunami early warnings directly from the BMG system.

In its original configuration the system utilized the Worldspace/RANET satellite system. However since this system is experiencing financial difficulties it was reconfigured for GSM communications.

The system functions as follows: BMG Jakarta sends out earthquake and tsunami information to a computerized receiver which is installed at the 24/7 operators room at Kuta's Hard Rock Hotel. An audio alarm is triggered. The location of the earthquake automatically pops up on a computer screen, supported by a map and data about earthquake strength, geographic location, depth and tsunami potentials. The set up resembles the official BMG websites service www.bmg.go.id.

However the system is not providing targeted information for specific areas like Bali. That is a

challenge because false alarms need to be kept to a minimum as evacuation of major hotels is always costly and difficult.

That is why the Hard Rock operators are using a decision making SOP to forward Bali specific tsunami warnings only. The procedures and documents were provided by GTZ GITEWS and modified to address BHA's specific needs. The current procedures are similar to the ones being used by official local decision making bodies like e.g. PUSDALOPS/ Denpasar. The decision making and warning dissemination process of BHA is 100 % formalized to take the burden of decision making from the shoulders of the individual and to avoid judgment errors.

The earthquake and tsunami information is sent out via SMS, followed by supporting information via e-mail. In the near future UHF radio communication will serve as a back up. Average processing time from the reception of the BMKG warning at the Hard Rock to the dissemination of BHA tsunami warning SMS's is 5 minutes.

BHA is sending out 6 different standardized SMS's.

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.

Technical support is provided by BMKG Jakarta.

SUCCESS FACTORS

Consistency

Consistent and professional training of the BHA operators staff is essential. Constant reminders and test runs ensure that nothing delays the decision making and warning dissemination process. Reliability should never be taken for granted and needs to be enforced on a regular basis. Recognition and support through the Hard Rock hotel's top management encourages personal identification of the operators with their task and enhances their commitment.

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. The document can be downloaded free of charge

from the internet. Complimentary 'Tsunami Ready' Seminars are providing all participating hotels with tailored information and solutions.

Versatility

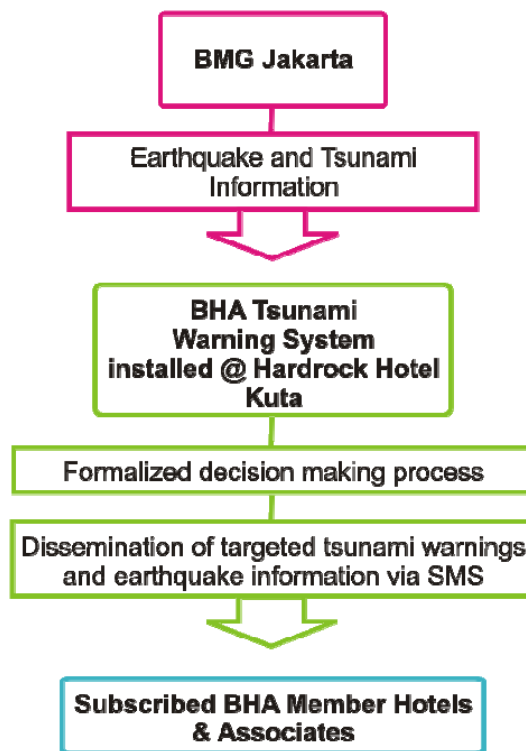
The BHA tsunami warning dissemination system is utilized for multiple purposes. After the 2009 Jakarta bombings it was used to set the alert level of all BHA member hotels to red just 20 min after the explosion of the first bomb. The systems versatility is an extra incentive for BHA to maintain it.

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.

Awareness for Limitations

Awareness that nothing is perfect is essential. The BHA tsunami warning service is designed to function complimentary to other information sources. Sensibility for the systems limitations and the necessity for individual self initiative and responsibility is a further key to successful disaster risk reduction.



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