

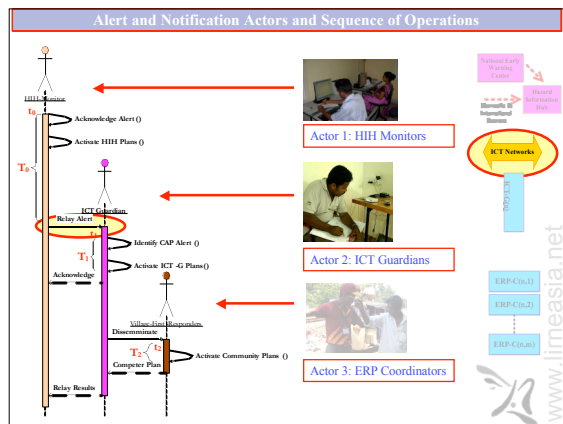
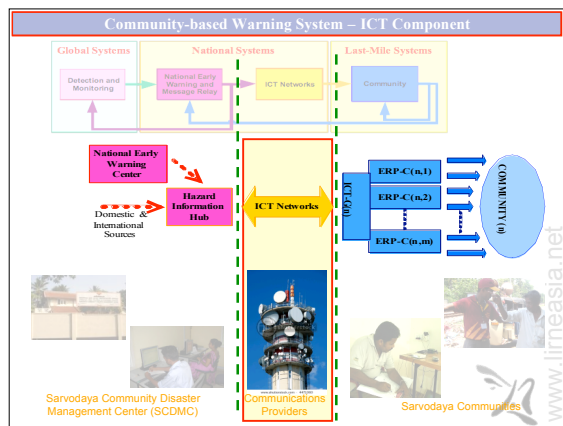
## Transmission of Warnings to local levels: *Sri Lanka Experience*

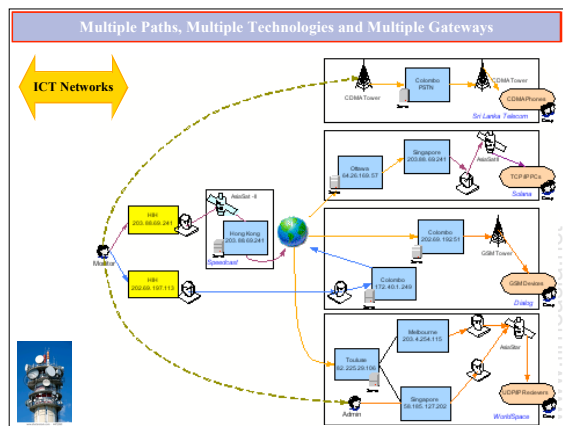
Sharing knowledge on Disaster Warnings  
Community based Last-Mile Warning System  
Jakarta Indonesia  
March 05, 2008

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March 05, 2008  
Jakarta, Indonesia  
[waidyanatha@lirne.net](mailto:waidyanatha@lirne.net)  
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[www.lirneasia.net](http://www.lirneasia.net)






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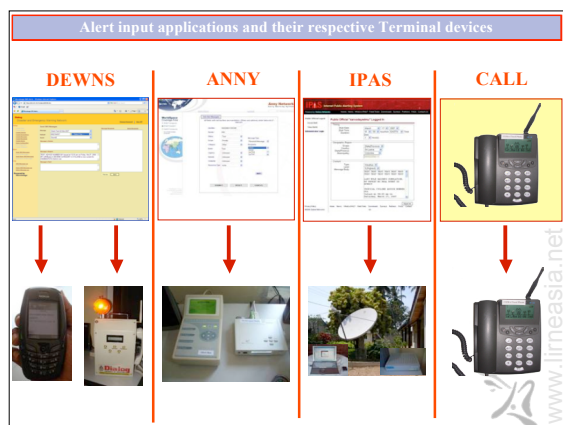
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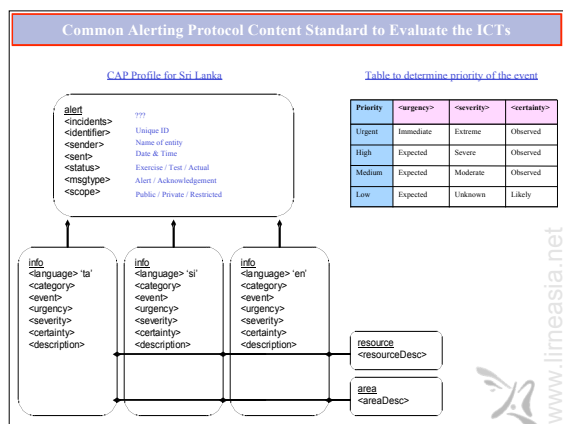
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**TEST TEST TEST TEST TEST TEST TEST TEST TEST TEST TEST TEST**  
Last-Mile HazInfo Simulation. No Repeat No Real Event is Effect

A SEVERE CATEGORY 4 CYCLONE is now current for AMPARA and MATARA District coastal areas. At **06:00 am** local time SEVERE TROPICAL CYCLONE MONTY was estimated to be **80 kilometres north of AMPARA** and moving southwest at **10 kilometres per hour**. Severe Tropical Cyclone Monty is expected to cross the coast in the vicinity of Ampara and Matara Districts during Monday. Gales with gusts to 180 kilometres per hour are likely in coastal communities in Ampara and Matara District during the day.

Widespread heavy rain and further flooding are likely in southern parts of the Ampara and Matara Districts over the next few days.

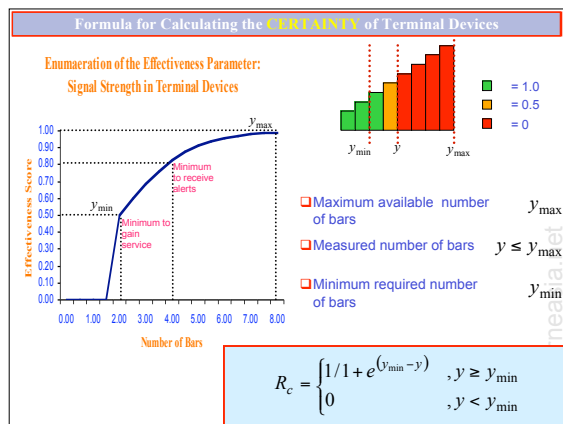
**TEST TEST TEST TEST TEST TEST TEST TEST TEST TEST TEST TEST**  
Last-Mile HazInfo Simulation. No Repeat No Real Event is Effect.

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<?xml version="1.0" encoding="UTF-8" ?>
<identifier>HIH-2006-12-11T143500</identifier>
<sender>hii@sarodaya.ik</sender>
<sent>2006-12-11T10:20:25.000000+06:00</sent>
<status>Exercise</status>
<msgType>Alert</msgType>
<source>hazardline.net</source>
<scope>Restricted</scope>
</info>

<language>en-US</language>
<category>Meta</category>
<event>A Severe Category 4 Cyclone</event>
<responseType>Prepare</responseType>
<urgency>Expected</urgency>
<severity>Severe</severity>
<certainty>Observed</certainty>
<description>At 06:00 am local time SEVERE TROPICAL CYCLONE MONTY was estimated to be 80 kilometers northeast of Ampara District and moving southwest at 10 kilometers per hour. Severe Tropical Cyclone Monty is expected to cross the coast in the vicinity of Ampara and Matara Districts during Monday. Gale winds gusts to 180 kilometers per hour are likely in coastal communities in Ampara and Matara District during the day.

This is to alert the residents of Ampara and Matara District about the potential of a very dangerous storm tide as the cyclone centre approaches the coast. Tides are likely to rise significantly above the normal high tide mark with very dangerous flooding, damaging waves and strong currents. Widespread heavy rain and further flooding are likely in southern parts of the Ampara and Matara Districts over the next few days.</description>
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■ **Reliability**  $R = R_c \times R_e$




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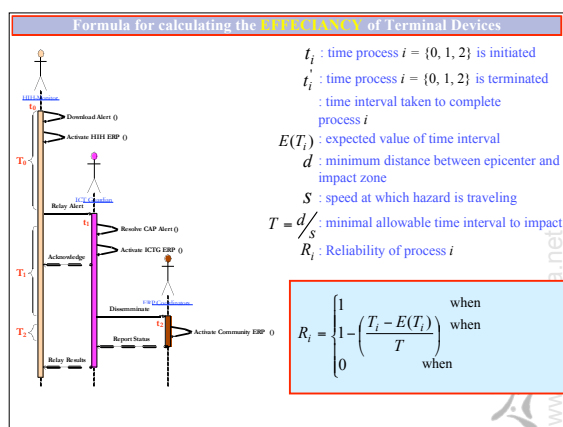
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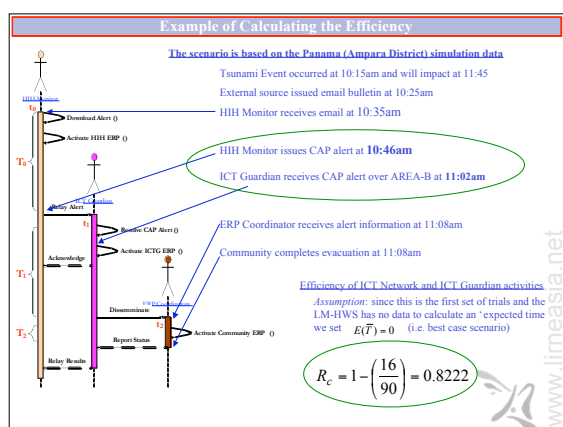
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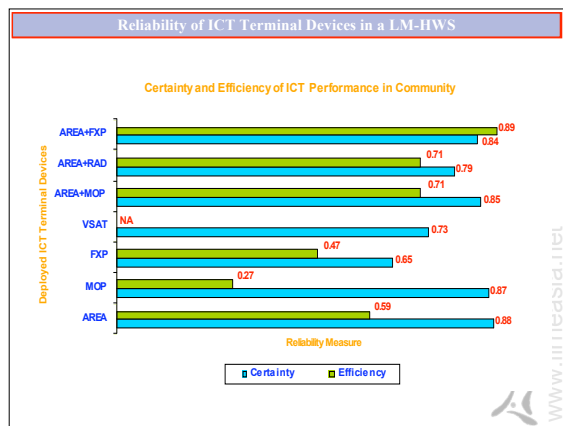
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- Other factors that drives **CERTAINTY** of Terminal Devices to ZERO
- Examples of mishaps during live-exercises in rural communities
- User accidentally deletes the tri-language J2ME applet in mobile phone
  - Mobile phone is powered down or battery has zero energy
  - User removes the 2 AA batteries and powers down the AREA
  - Antenna in AREA is not aligned for maximum signal strength
  - CDMA phone bill was not paid and service is discontinued
  - User covers VSAT modem ventilation shafts with news paper and over heats modem
  - VSAT Network Internet proxy blocks IPAS packets returning to PC
  - RAD not registered under correct District in DEWNS Internet based alerting application
- www.limeasia.net

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- Factors that drives **EFFICIENCY** of Terminal Devices to ZERO
- Examples of mishaps during live-exercises in rural communities
- ICT Guardian Not Near Terminal Device to receive alert
  - System login automatically reset
  - Message takes too long to enter and session times out
  - Stormy weather makes Microwave antenna sway
  - Pirates have stolen undersea cable, provider has to route through low bandwidth redundancy paths
- www.limeasia.net

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Parameters to determine the <b>EFFECTIVENESS</b> of ICT Terminal Devices		
Clique	Abbreviation	Parameter
<b>CAP Complete</b>	Ethnicity	Language Diversity
	All-media All-hazards	Full CAP Messaging
	Multimedia	Audio and Text Medium
<b>Two-Way</b>	bi-directionality	Upstream Downstream Communication
<b>Adoptability</b>	Utilization	Integration in to communit daily life or development
	affordability	Total Cost of Ownership
<b>Minaturization</b>	Weight	Weight of wireless ICT terminal
	Longevity	DC Power Consumption
	Volume	Dimensions of Terminal Device
<b>Alerting</b>	accountability	Acknowledgement message receipt
	wakeup	Active alerting function

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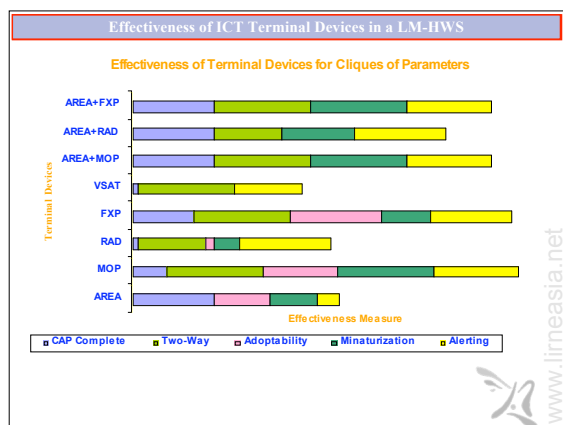
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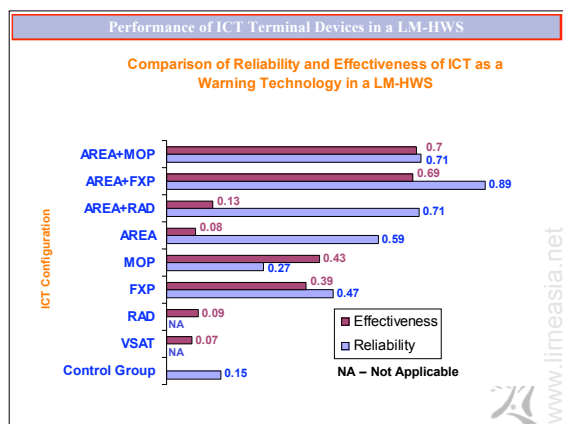
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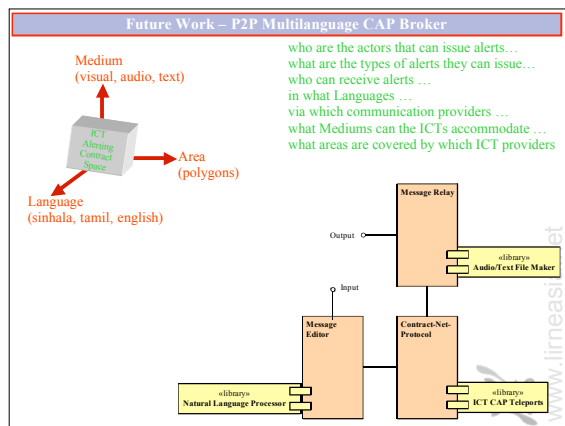
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**Best Practises drawn from the Research**

- ❑ Communication must be in the local language using a 'all-hazards' 'all-media' approach with the use of the **Common Alerting Protocol**; (i.e. full CAP messaging to avoid ambiguity)
- ❑ Deploy multiple terminal devices with the aim of achieving "**complementary redundancy**" in reliability and effectiveness

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