

# Communication for risk reduction

Third National Symposium on Disaster Risk Reduction  
& Climate Change Adaptation

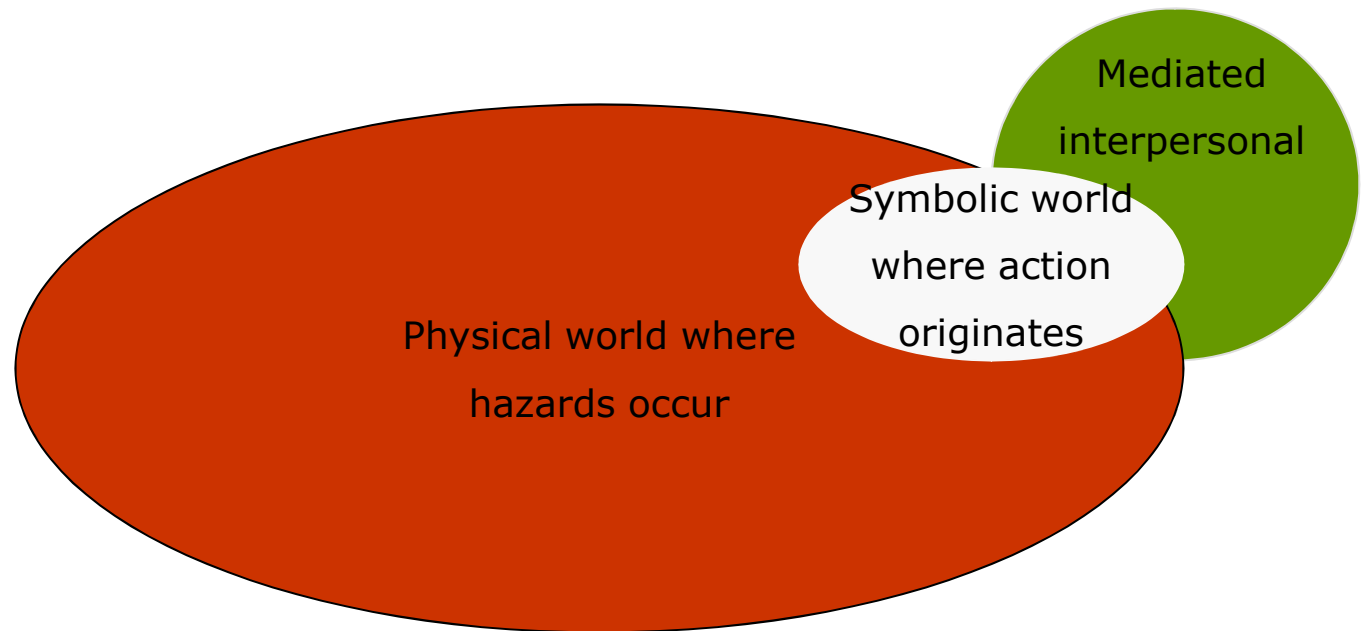
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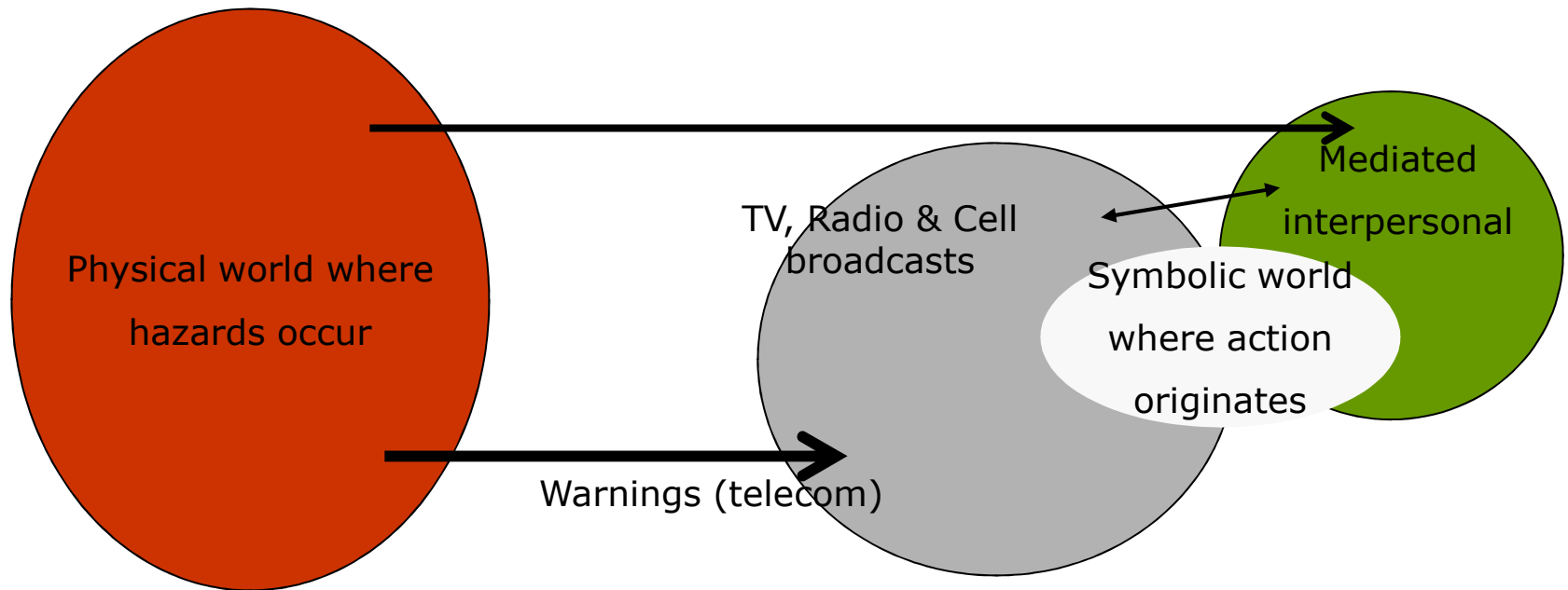
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# Physical and symbolic worlds, absent linking technologies



# The physical, the symbolic & their linking through ICTs, simplified

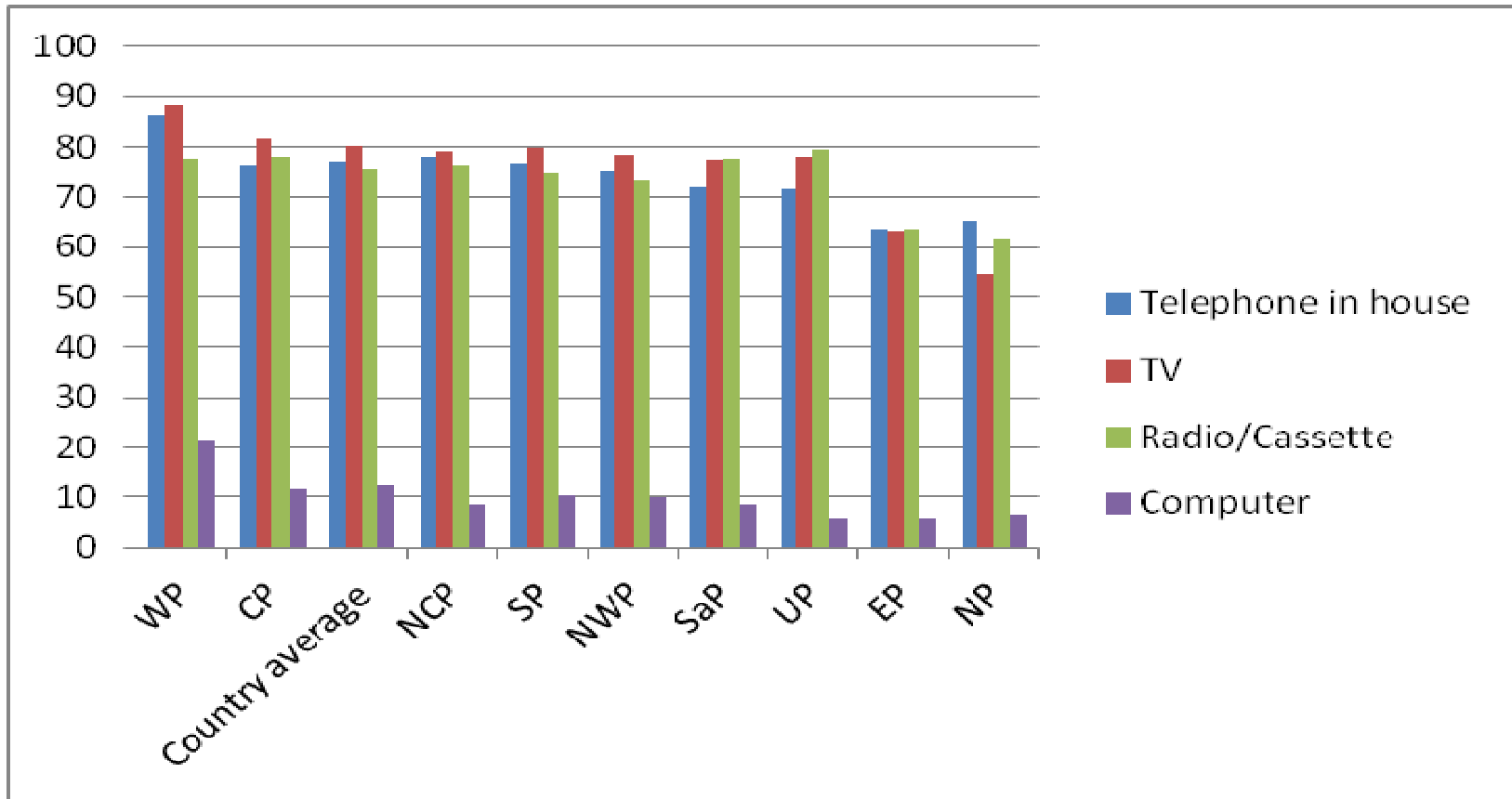


**More time to run; more lives saved**

# Telecom and e-media are important, but are only part of the solution

- Ability to move information at the speed of light can increase time to act to reduce risks of disasters
- Many organizational problems must be solved & technologies applied
  - At level of community
  - At level of first responders
  - At national early warning center
  - Among the carriers of alerts and warnings
- Effective warning must be complemented by preparedness plans, evacuation capabilities, etc.
- If we are to save livelihoods and property, in addition to lives, a lot more has to be done on risk reduction

# Cell broadcasting over GSM & CDMA phones is the first-best solution for public warning, but TV & radio have a place too



# Early Warning Center → Media & Telcos

- Protocols for fast decision making re issuance of warnings/alerts [Internal to government]
  - Smooth coordination among Met Dept, GSMB, DMC, President's Office needed
- Procedure for issuing large number of warnings/alerts quickly and reliably using multiple media, including acknowledgements and redundancy [Decision is government's; but best to use Common Alerting Protocol based single-input, multi-output, multi-language software solution]

# Solution

- Filling in of standard template that includes automatic translation based on look up dictionaries
- Single button transmission in multiple media and multiple languages
- SMS component already developed as a Sahana module
  - Need to develop internal protocols
  - CAP broker software
  - Equipment at media newsrooms and telco operations rooms
  - Procedures for verification that does not involve a one-on-one phone call

# Scale of the problem

- Imagine sequentially dialing and giving the message to
  - Television channels (7+?)
  - Radio channels (10+?)
  - Telecom operators (8)
- If each call takes 3 minutes, need 75 minutes for the whole set
  - 2004 Indian Ocean tsunami reached Komari/Arugam Bay coastline within 90 mts of earthquake
  - Detection-monitoring stage (international + national) requires 15-30 mts minimum to issue a warning, so all we have is 60-75 mts
  - Faster we get the message out, more time for people to respond