

Community-Operated Early Warning Systems in Central America, Current Trends



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Topics:

1. *Framework.*
2. *Current status.*
3. *Trends: operational and institutional issues.*
4. *The way forward.*



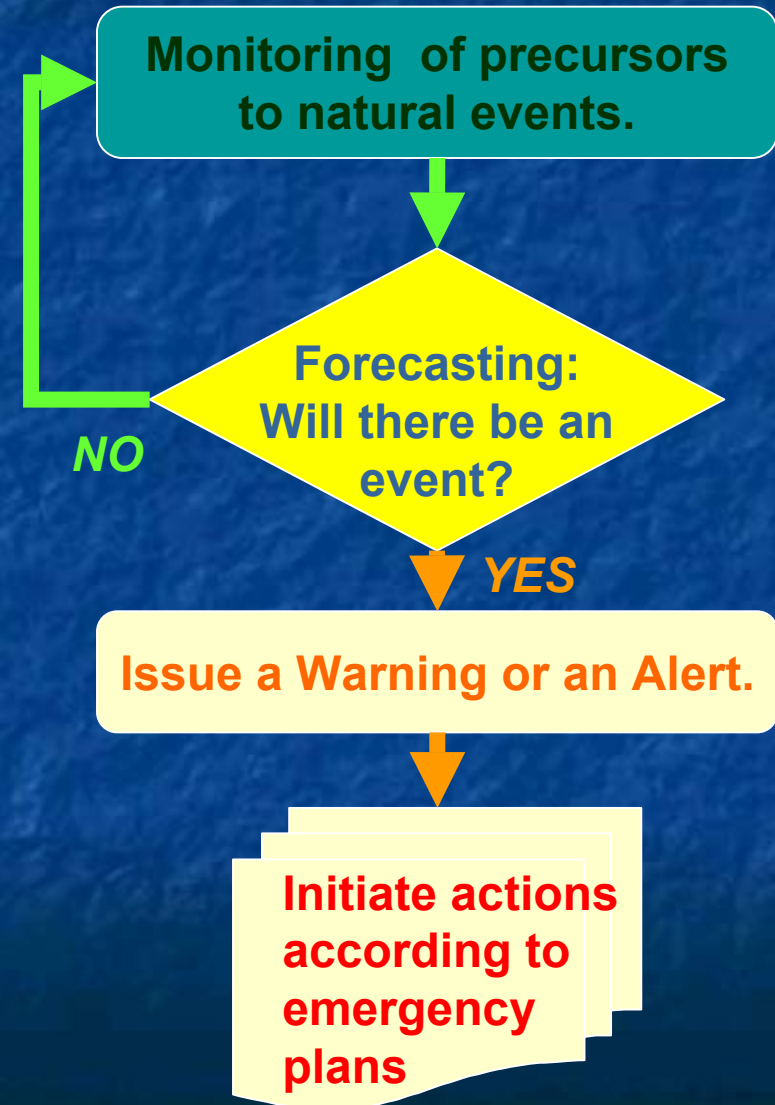
Conceptual framework C-EWS

Community Operated Early Warning Systems (EWS) operate on a very simple framework.

Precursors to events are monitored on a continuous basis by members of communities using simple instruments. Data is analyzed locally to generate a forecast.

If there is a forecast of a large event, a warning is issued by local authorities.

Local emergency committees will begin an anticipated response as proposed in local emergency plans.



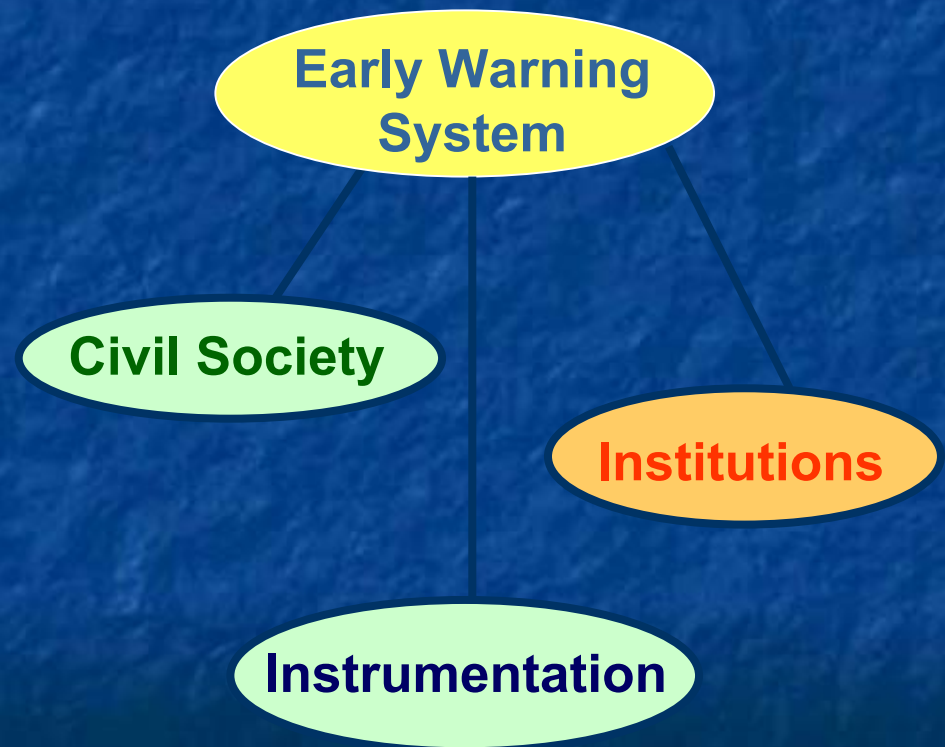
Community-operated Early Warning Systems (C-EWS) in Central America are based on three pillars:

Civil Society plays an active role in all phases of the EWS.

Using standard procedures, a central station can issue a forecast to the communities which will be affected. Local organizations then start an anticipated response to the event.

National level institutions devoted to disaster preparedness provide instrumentation, training and technical sustainability to the system. Tech. institutions provide tools and methods to operate the EWS.

Basic Structure



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Community-operated Early Warning Systems (C-EWS) in Central America are based on three pillars:

Civil Society plays a role in the design and implementation of the system. People organize Local Emergency Committees, elaborate emergency plans, test and improve the EWS through exercises and drills.

Procedures are similar for all systems targeting the same hazard.

National level institutions devoted to disaster preparedness provide the means for communications: radio networks. This allows communities to have a direct link to all levels (municipal, state, and national).



Institutions

Civil Society



Instrumentation

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Historical evolution of C-EWS in Central America 1996-2004

<i>Hazard</i>	<i>1996</i>	<i>1998</i>	<i>2001</i>	<i>2003</i>	<i>2004</i>
Floods	1	4	10	23	31
Volcanic Eruptions			2	2	4
Landslides				2	2

Lessons Learned from C-EWS:

- C-EWS have been successful in involving community members and local governments in rural communities, specially in the case of small river basins. However, tools and instruments have to be adapted to their limitations.
- EW is gradually encompassing the onset of emergency operations. Its being re-defined to go beyond the warning itself.
- Sustainability has to be built-in order for systems to operate successfully.

Recommendations:

- *Introduce Benchmarking and indicators to catalog EWSs.*
- *Systematize successful and unsuccessful experiences and distribute them.*
- Promote improvements to C-EWSs in areas such as hydrologic modeling.
- Promote an integrated approach, combining national and local strengths and capacities, to improve existing C-EWS.
- Involve risk management into C-EWS.