



CAP Implementation in México

Mtro. Mario Álvaro Ruiz Velázquez

Asesor del Centro de Instrumentación y Registro Sísmico A. C. "CIRES"

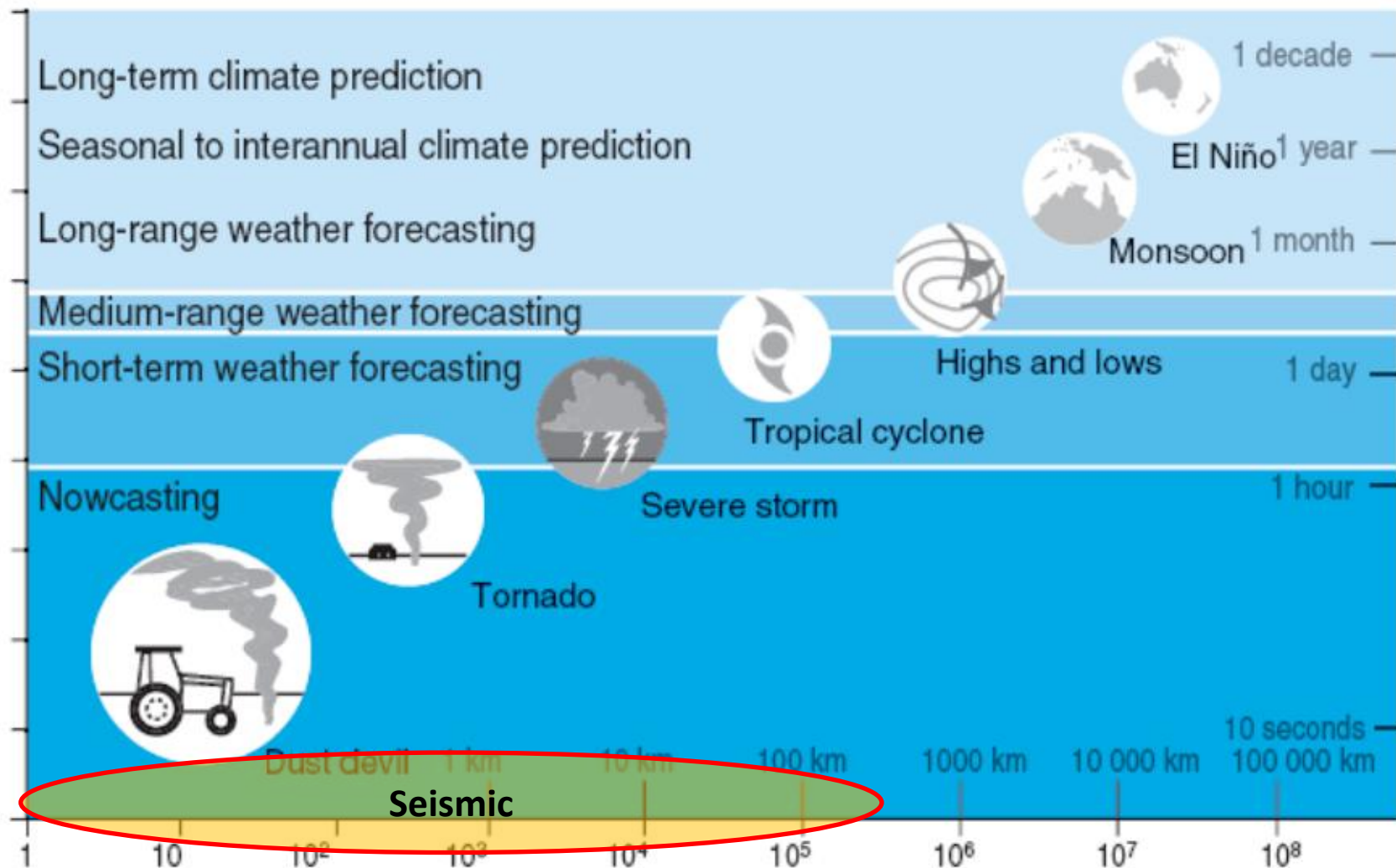
September 2015

Background



- ❖ Since 1991 is working Monitoring and Warning System to public directly, using technology designed by CIRES
- ❖ Today with 98 accelerometers, in 7 States, 8 Transmitters (NOAA frequencies), EQW is acceded by 25 million people, using open standards: Common Alerting Protocol (CAP) and Emergency Alert System/Specific Area Message Encoding (EAS/SAME)
- ❖ We use the CAP for Message Type for UPDATE, NOT Alert. ¿Why?

Background



Mexico's Earthquake Early Warning System

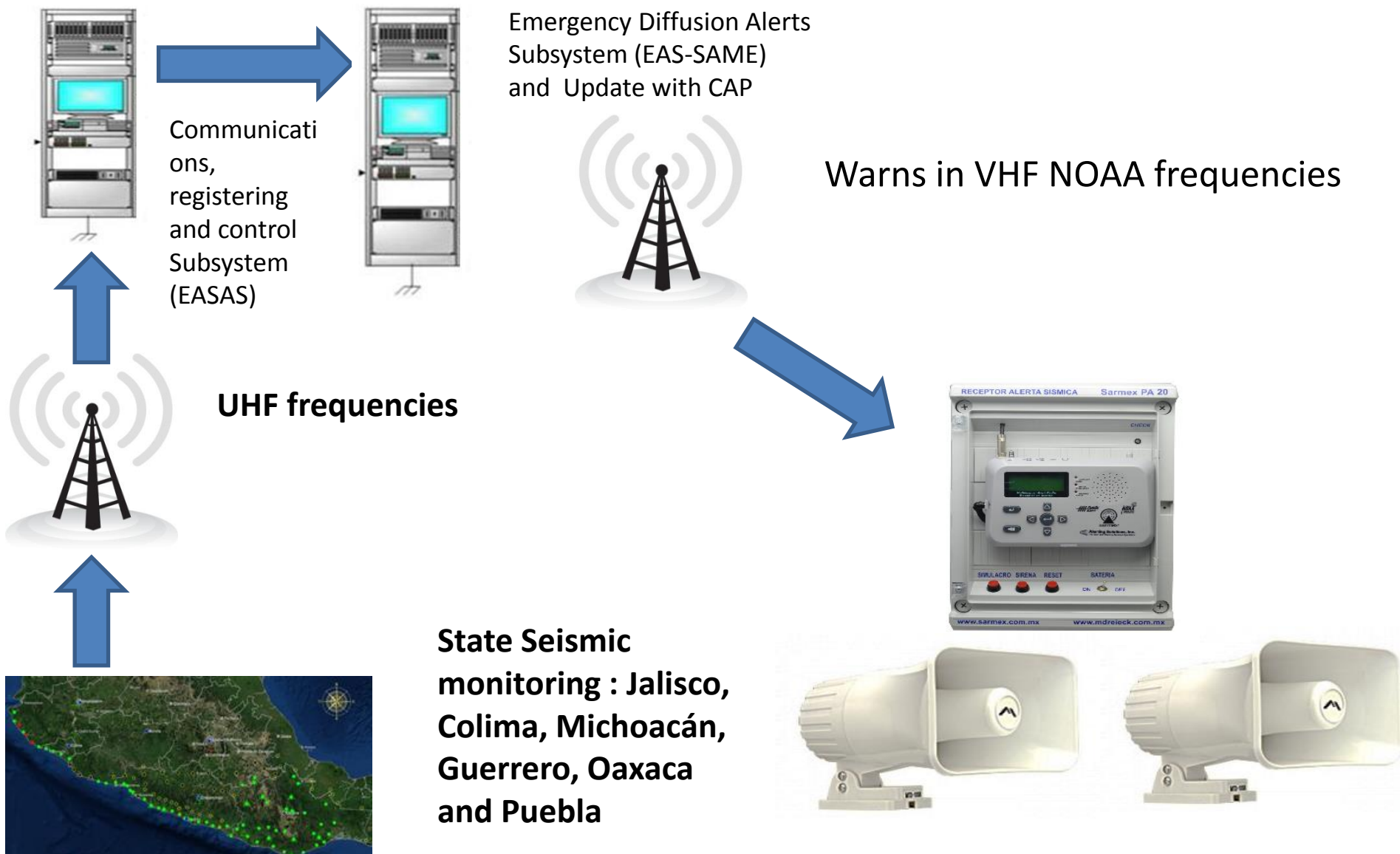


- ✓ *México City 2014*
- ✓ *1 minute warning*
- ✓ <http://www.youtube.com/watch?v=x5wE7-NgvX8>



- ✓ *Los Angeles CA 2014*
- ✓ *Any Warning*
- ✓ <http://www.youtube.com/watch?v=KiB7ny52-xw>

How does it works?



CAP is using Emergency Alert System /Specific Area Message Encoding (EAS/SAME)



5.2. IPAWS CAP v1.1 Profile EAS Specific Elements

The remaining tables represent the requirements and guidelines to create the EAS Profile <info> and other blocks of the IPAWS CAP v1.1 Profile which are intended to be EAS-specific. General guidelines for message creation of an EAS <info> block are defined below:



Federal Emergency Management Agency (FEMA)
Integrated Public Alert & Warning System (IPAWS)
Common Alerting Protocol (CAP) v1.1 Profile Requirements
Draft Version 2.4
December 10, 2008

Example

Before



During



After



Volcanic 

Flood 

UV 

Tsunami 

Huracan 

Background: Earthquakes



National Warning System with CAP and EAS/SAME:
Proposal in 2011, 2013 and 2015

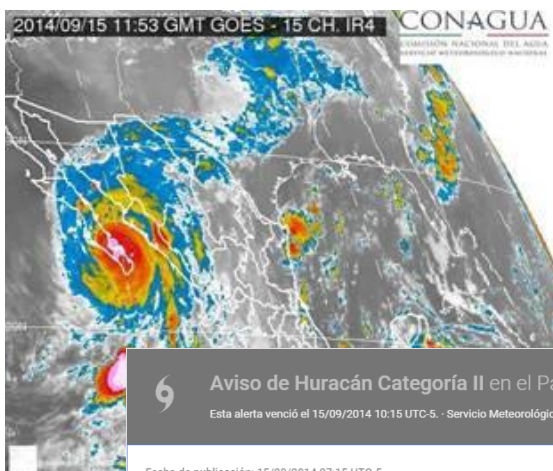
Puebla County is implementing CAP (All Hazard-
Multiple Media) and EAS/SAME

Guerrero State is working on proposal with CAP (All
Hazard-Multiple Media) and EAS/SAME



centro de instrumentación y registro sísmico, a. c.

Background: Hidrometeorological



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Aviso de Huracán Categoría II en el Pacífico

Esta alerta venció el 15/09/2014 10:15 UTC-5. · Servicio Meteorológico Nacional

Fecha de publicación: 15/09/2014 07:15 UTC-5

El huracán "Odile" continúa como un huracán categoría III en la escala de Saffir-Simpson, se desplaza hacia el nor-noroeste. Su circulación provocará potencial para lluvias torrenciales en Baja California Sur, Intensas en Sinaloa; muy fuertes en Baja California, Sonora, Nayarit, Jalisco, Durango y Colima, y fuertes en Chihuahua y Michoacán.

Los datos contenidos en el presente documento, forman parte de un producto piloto en fase experimental para avisar únicamente sobre ciclones tropicales. Dichos datos se determinaron con base en la información de modelos numéricos de fenómenos hidrometeorológicos con los que cuenta la Comisión Nacional del Agua, por lo que al ser los mismos variables, no es posible determinar con exactitud su ocurrencia y magnitud. Las medidas para la prevención y mitigación de sus efectos son emitidas por las autoridades de protección civil.

Acciones recomendadas:

A la población en general de los estados mencionados y a la navegación marítima en las inmediaciones del sistema, mantener precauciones y atender las recomendaciones emitidas por las autoridades del Sistema Nacional de Protección Civil.

In 2014, Presidency of the Mexican Republic and CONAGUA-SMN worked together in CAP implementation for tropical cyclone alerts (July)

It collaborates with Google Crisis Map, a new way to inform the public in a timely manner on these weather event

One of many success example on how the CAP help to alert the public is with the Huracane Odile that hit Baja California México in September 2014

In this year CONAGUA-SMN began the implementation of the CAP for the cold fronts alerts (May). CONAGUA-SMN is currently working in the development of more CAP's for weather alerts

CONAGUA
COMISIÓN NACIONAL DEL AGUA

Background: Volcano



Since 2014 in coordination with technological Presidency office of the Mexican Republic worked together in CAP implementation for Volcano alerts



CENAPRED
MÉXICO

Background



INSTITUTO FEDERAL DE
TELECOMUNICACIONES

June 2014. Urge the House of Representatives to IFT to establish an APP to alert seismic by cell phones.

July 2014. Meetings with the National Seismological Service (SSN), the Center for Instrumentation and Seismic Record, AC (CIRES).

September 2014. Request of the National Water Commission (CONAGUA) to assist and advise the pilot sent emergency announcements project hydrometeorological phenomena via cell phone.

October 2014.- Installation of working groups for the regulation and development of the Mexican Seismic Alert System (SASMEX) in mobile telephony.

October 2014 to April 2015.- Installation and monitoring of desks with mobile phone dealers for the draft notices by hydrometeorological phenomena.

November 2014.- Contact with sub-ministry of Telecommunications (Subtel) of Chile to share technical information and advice in implementing the warning system for emergencies.

Background



INSTITUTO FEDERAL DE
TELECOMUNICACIONES

January 2015.- Analysis of Cell Broadcast technology for the transmission of bulk messaging in emergency situations.

April 2015.- Inclusion Project in the National Digital Strategy President of the Republic.

April 2015.- Initiative to reform the Federal Telecommunications Act and Broadcasting (LFTyR) to give the power to regulate IFT messages in emergency situations. Favorable vote in Parliament (Senate vote needed).

May 2015.- Analysis of the use of SMS messaging for the transmission of messages in emergency situations.

May 2015.- Presentation of the draft in the regional workshop on emergency communications, CCP II of the Inter-American Telecommunications Commission (CITEL) Cusco, Peru.

June 2015.- Inclusion of the issue on the bilateral agenda June 8 with the Federal Communication Commission (FCC) of the US

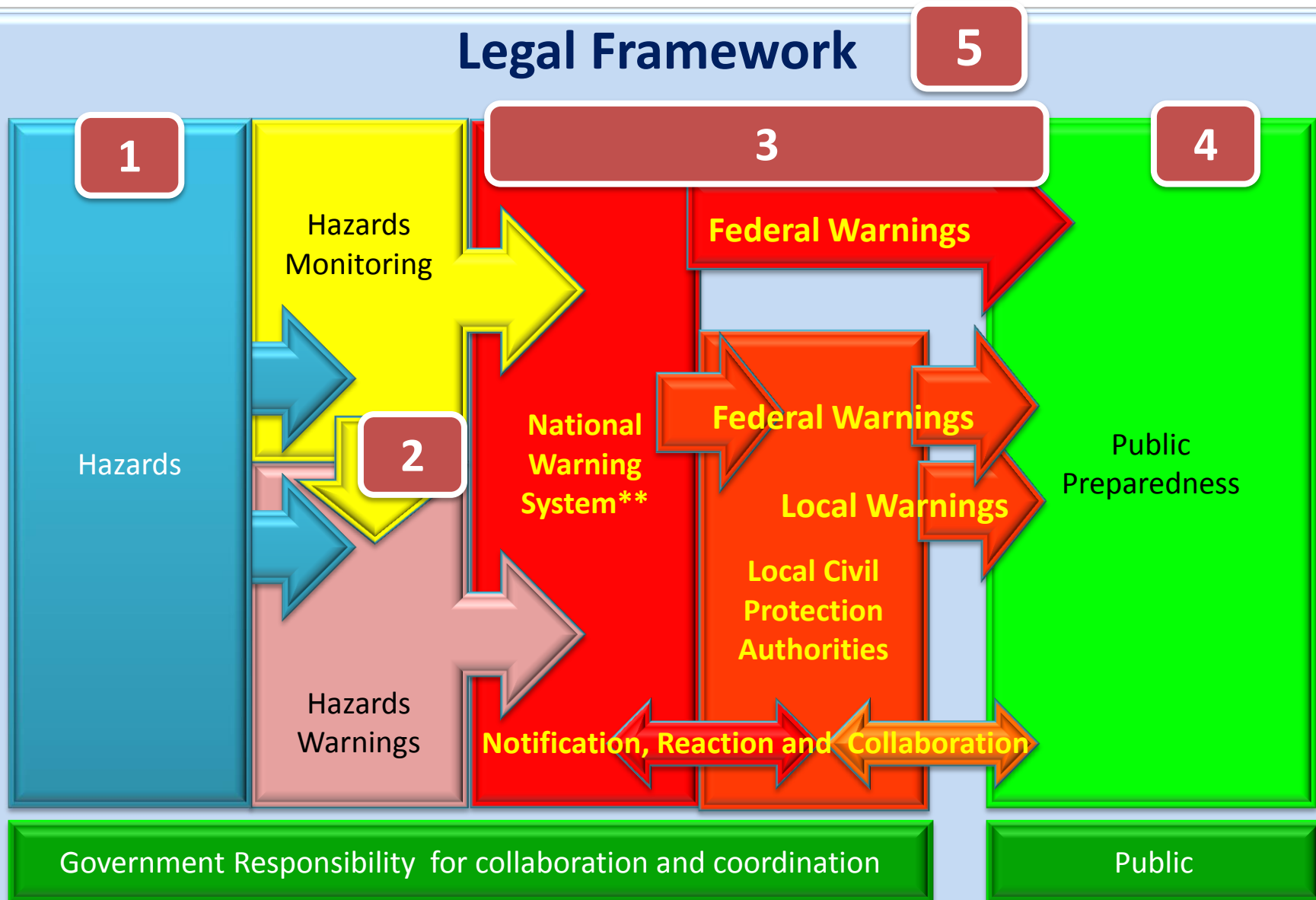
Actual Situation: Mexico use CAP



- ❖ *Creates CAP group for Mexico: IFT, CONAGUA-SMN, CIRES, others*
- ❖ *IFT will be leading to continue sponsoring the use of CAP in Mexico.*



Next Steps: National Warning System Model



Issuing technical regulations to be observed by telecommunications licensees, broadcasters and service providers to prioritize communications applications and services providing transmission and reception of relevant information, newsletters or mass messages, it occurred before or after an emergency or risk free for users

Next Steps

Legal Framework

Senate accepts IFT's power to regulate the messages in emergency situations

Regulate warning equipment for emergency

Develop CAP México Profile (CAP-Mx)

Next Steps



Analysis and CAP Mexico Strategical components development

Design, monitor and regulate the mechanism and define the technological parameters required to transmit massively through dealers telecommunications, broadcasting and application service providers, smart alert messages in emergency situations.

Regulate mode in which dealers telecommunications, broadcasting and application service providers shall or shall not transmit early warnings in emergency situations.

Strengthening the physical infrastructure of telecommunications to prioritize communications before, during and after an emergency event.

Methodology to disseminate Warnings and Notifications using CAP

Next Steps

Coding the
Common
Alerting
Protocol
(CAP) to
approve its
use by
different
agencies
issuing
warnings

Coordinate Federal using CAP Alert
Messages Between Authorities

Coordinate State and County Messages
using CAP Between Authorities

Coordinate Public Hazard Warning
using all CAP

Resume



- ❖ *Mexico's EQW is using CAP to Update Earthquakes; for Alert is using EAS/SAME VHF technology (fast response)*
- ❖ *CAP-EAS/SAME protocols may to be used for last mile to warn communities that doesn't have access to other telecommunications medias*
- ❖ *Mexico's Federal Telecommunications Institute is leading and working to create legal framework to use CAP in Mexico*
- ❖ *Mexico's Agencies are working together to implement CAP, not only at Federal Level, are included State and County, but mainly Public*



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