Common Alerting Protocol in FEWER

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FISHERIES EARLY WARNING & EMERGENCY RESPONSE - FEWER

A mobile app to **reduce fishers' risks** from climate change through **early warning** and **emergency response** on mobile phone, PC and VHF radio
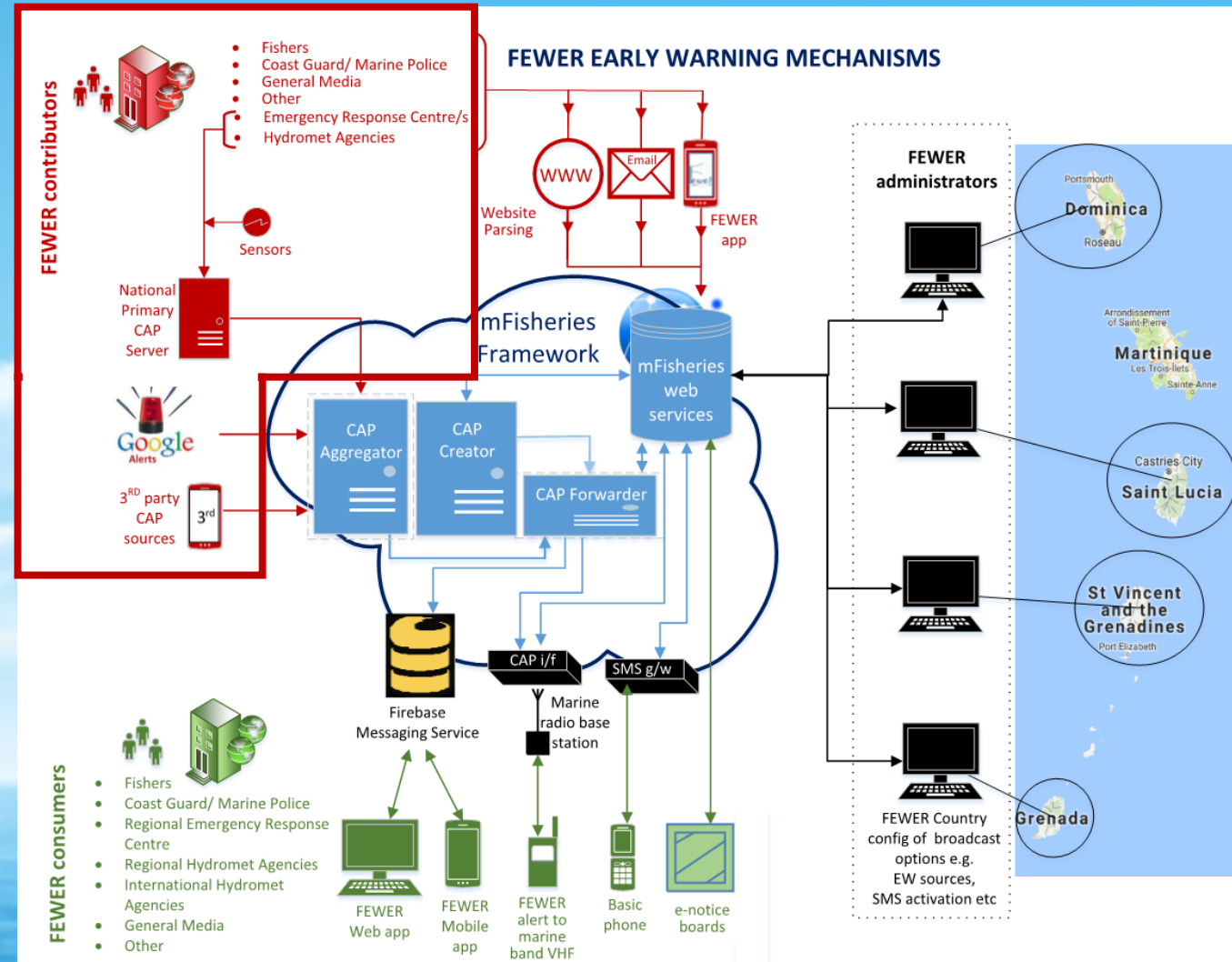
FEWER Alerts Module
Public & community alerts

Alert Groups

Public Advisories-St Vincent and the Grenadines — VIEW

FEWER Fishers' Training Group-St Vincent and the Grenadines — JOIN

St Vincent and the Grenadines — CHANGE COUNTRY

FEWER is a fisheries specific EWS
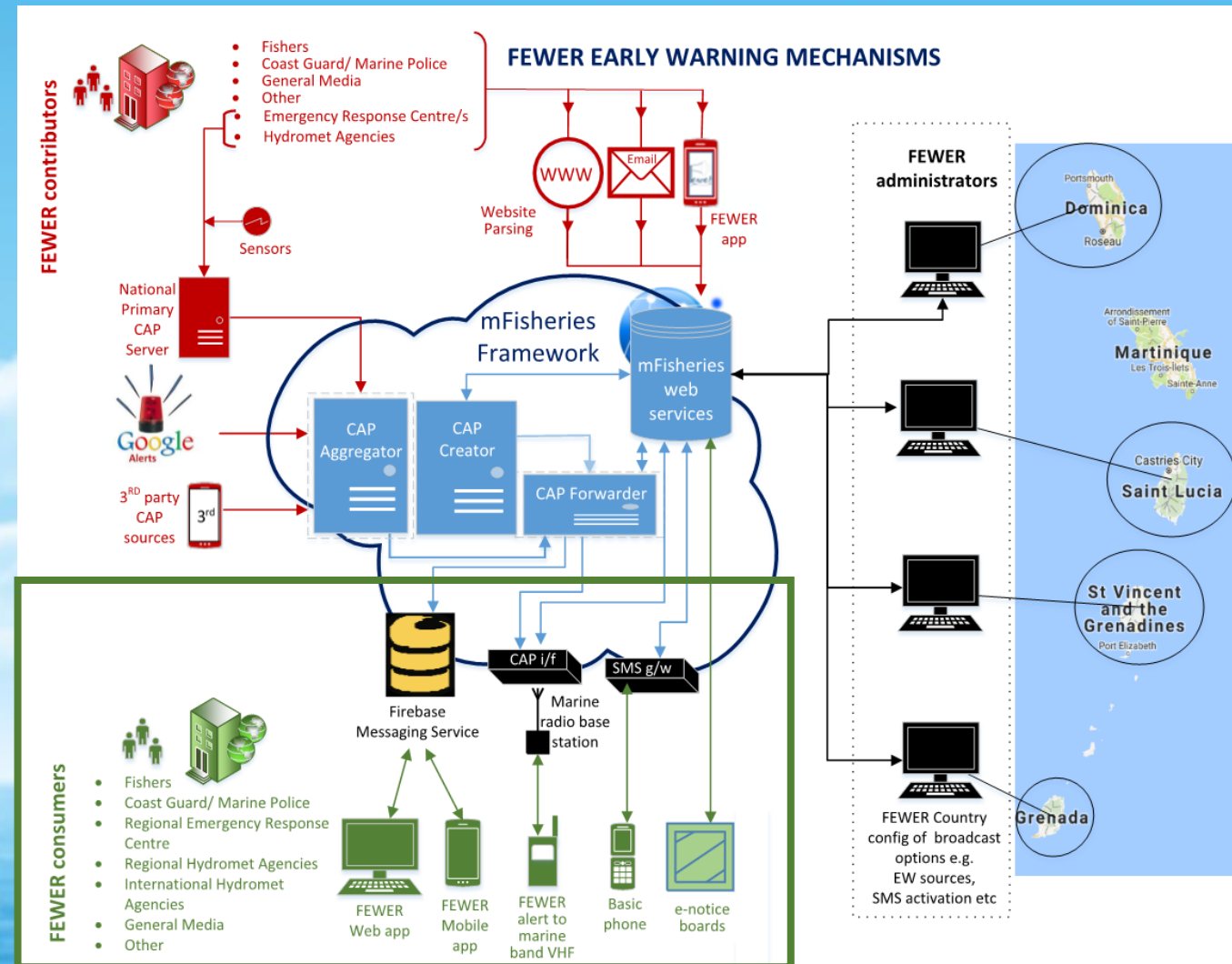
Sources

- Fisheries-related EW sources include:
  - National Primary CAP Servers
  - Hydro-Met Servers
  - Fishers
  - Coast Guard
  - Disaster Management Agencies

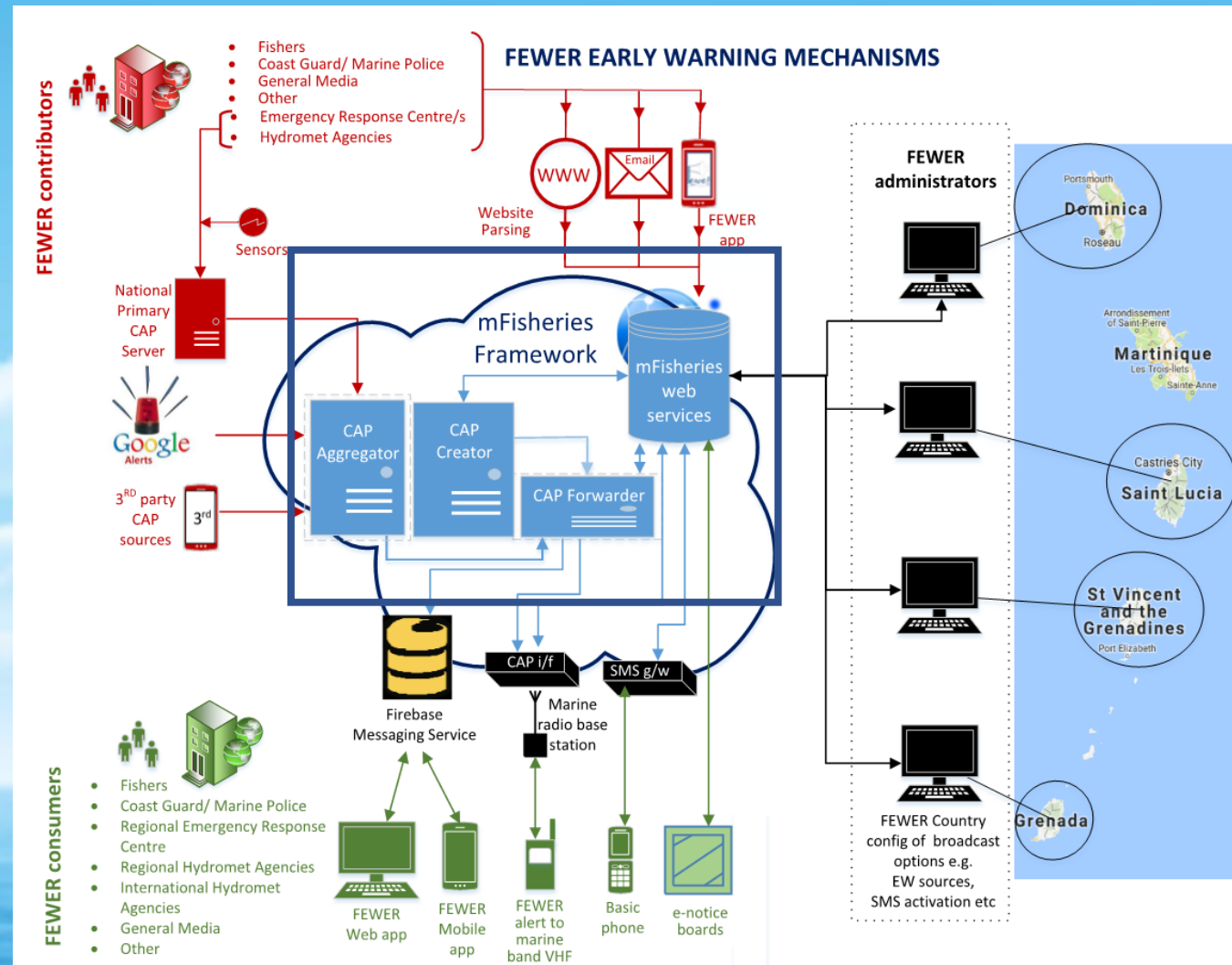- Authorized administrators create alerts specifically for fisherfolk

Consumers

- Primary distribution channels for fishers:
  - FEWER smartphone App
  - FEWER web-app

- Optional channels include SMS, VHF radio and e-notice boards where available in country

- Other consumers include Coast Guard, disaster management agencies, hydromet centres, etc.
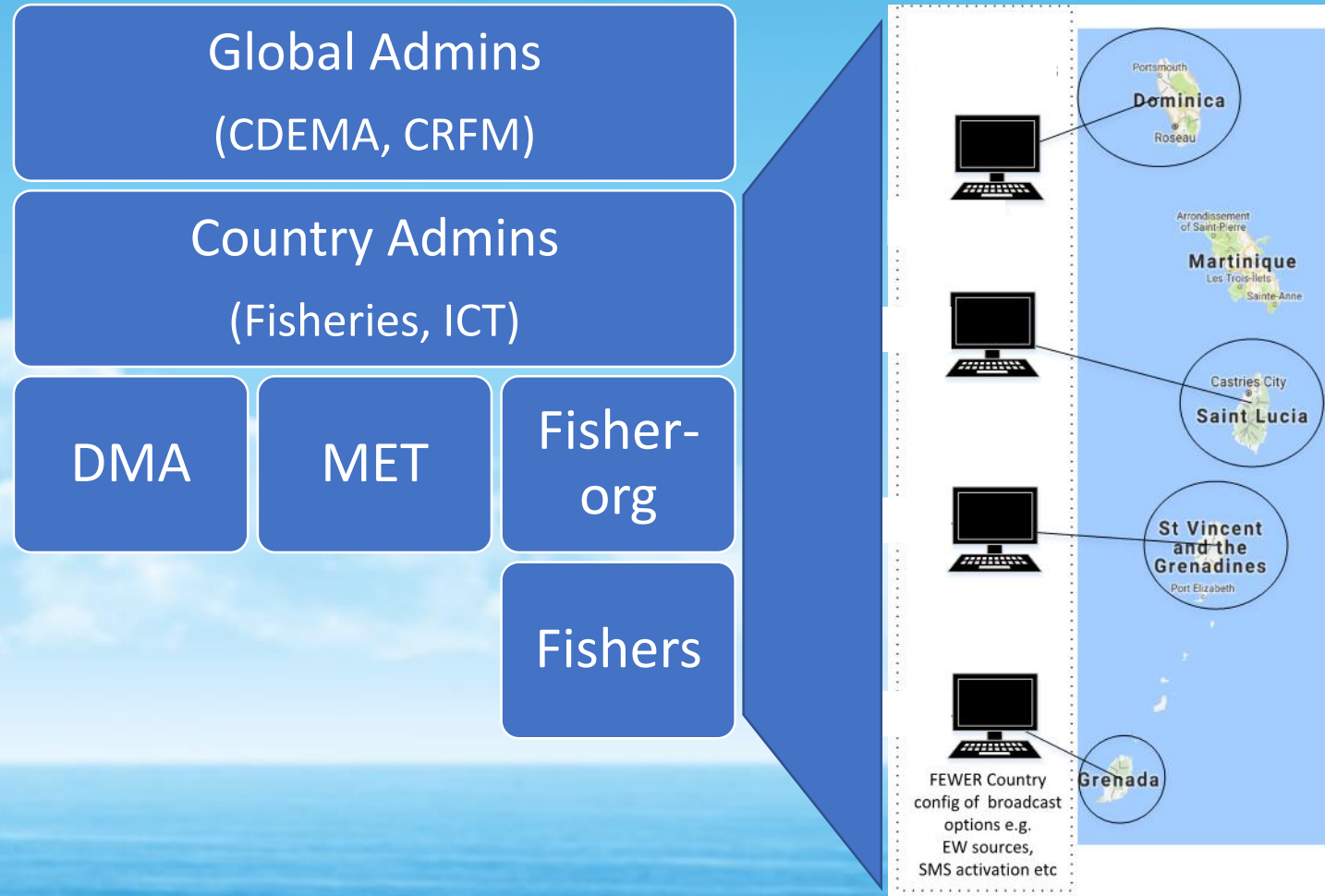
Processing

- CAP alerts are processed in the mFisheries Services Framework in the Cloud
- Open source CAP Collector tools:
  - CAP Aggregator
  - CAP Creator
  - CAP Forwarder
- CAPTools™, CAPCreator™, CAPCollector™ and CAPConsumer™ are trademarks of Carnegie Mellon University

- https://bitbucket.org/ewer_fish/capcollector

Administration

FEWER administration is tiered:

- The global admin is the Caribbean Disaster Emergency Management Agency (CDEMA)

- Country admins are fisheries authorities, local disaster management agencies (DMAs) and meteorological offices

- Only CDEMA & DMA admins are authorized to issue alerts

Global Admins
(CDEMA, CRFM)

Country Admins
(Fisheries, ICT)

DMA

MET

Fisher-org

Fishers

FEWER Country config of broadcast options e.g. EW sources, SMS activation etc

Localization

Coastal Flash Flood

FEWER Alert Template
Coastal Flash Flood
Low Visibility
Storm Surge
Strange Current
Whitecaps
Ground Swell
Monthly System Test

- A FEWER coastal flash flood alert is in effect for [AREA]. A coastal flash flood alert means that water from sudden heavy rainfall is accumulating on the coast, or is inland making its way swiftly to the coast by rivers and drains.

Describes where and the nature of the hazard or emergency

- Flash flooding can threaten fisherfolk, infrastructure, equipment and fishing vessels on or near the coast where the water reaches natural and human-made barriers or the sea High volume and velocity drainage, may cause flooding that threatens lives and property directly or through debris and other substances transported in the flood waters.

Describes how the hazard affects fishers

Creation

From Admin Via a Form

English (US)

Country	Trinidad
Message Template (Optional):	
Status: *	Actual
Type: *	Alert
Scope: *	Public
Hazard Type: *	Meteorological
Protective Action: *	Recommended Action
Message Priority: *	Urgency
	Severity
	Certainty
Time to Expiration: *	6 Hours

Alert Details

Event*	Event Title
Short-Text Headline:	Shorter event name

From Fisher Via a Community Alert

Community Alerts

Content	Severity	User	Location	Date	
Rough Seas	Kyle E. deFreitas	3 - Severe	10.6410495,-61.4002982	2017-11-24 18:20:07	Details / Broadcast / Ignore

Broadcast Approved By DMA Admin

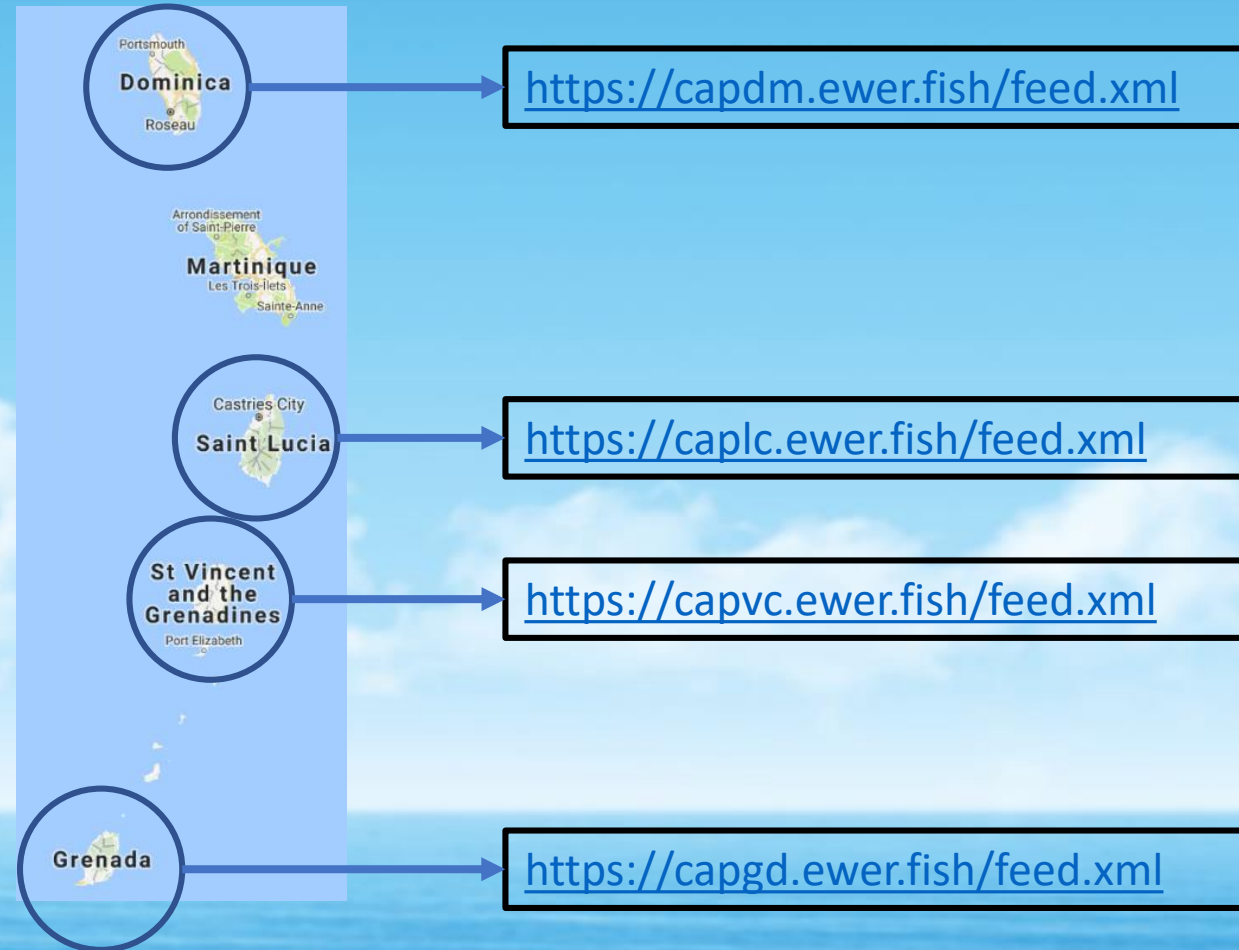|	
Type of Message: *	Actual
	Alert
	Public
Hazard Type: *	Environmental
Protective Action: *	Monitor Conditions
Message Priority: *	Unknown
	Moderate
	Unknown
Time to Expiration: *	3 Hours

Details

Event*	Rough Seas
Short-Text Headline:	Rough Seas

(130 characters left)

Feeds

- Country-specific **endpoints** enable external services to subscribe to alerts generated by FEWER

- Feed are forwarded through
  - RSS
  - ATOM

https://capdm.ewer.fish/feed.xml

https://caplc.ewer.fish/feed.xml

https://capvc.ewer.fish/feed.xml

https://capgd.ewer.fish/feed.xml

Challenges

- Handling country- and sector-specific early warnings:
  - Country-specific CAP installations
  - Fisheries-specific alert templates

- Conventions versus protocol specifications

  e.g. CAP specification requires an identifier to be globally unique like Universally Unique Identifiers (UUID), however conventions (WTO/ITU) recommend using Object Identifiers [ITU-T X.660] (OIDs) as globally unique identifiers

  urn:oid:2.49.0.1.670.1.2019.2.27.20.12.54

  Identifier for CAP alert using OID

  urn:1ce1ce40-1b6c-452f-9a97-37560c0bcf65

  Identifier for CAP alert using UUID

- Finding appropriate tools to create & fwd CAP alerts in admins' workflow

Recommendations for ITU

Develop:

- a checklist for compatibility with WMO and ITU CAP guidelines e.g. WebAIM's web accessibility https://webaim.org/standards/wcag/checklist

- An additional validation tool for CAP best practices to supplement existing specification-conformance validators like Google Validation Tool: https://cap-validator.appspot.com/

Thank You