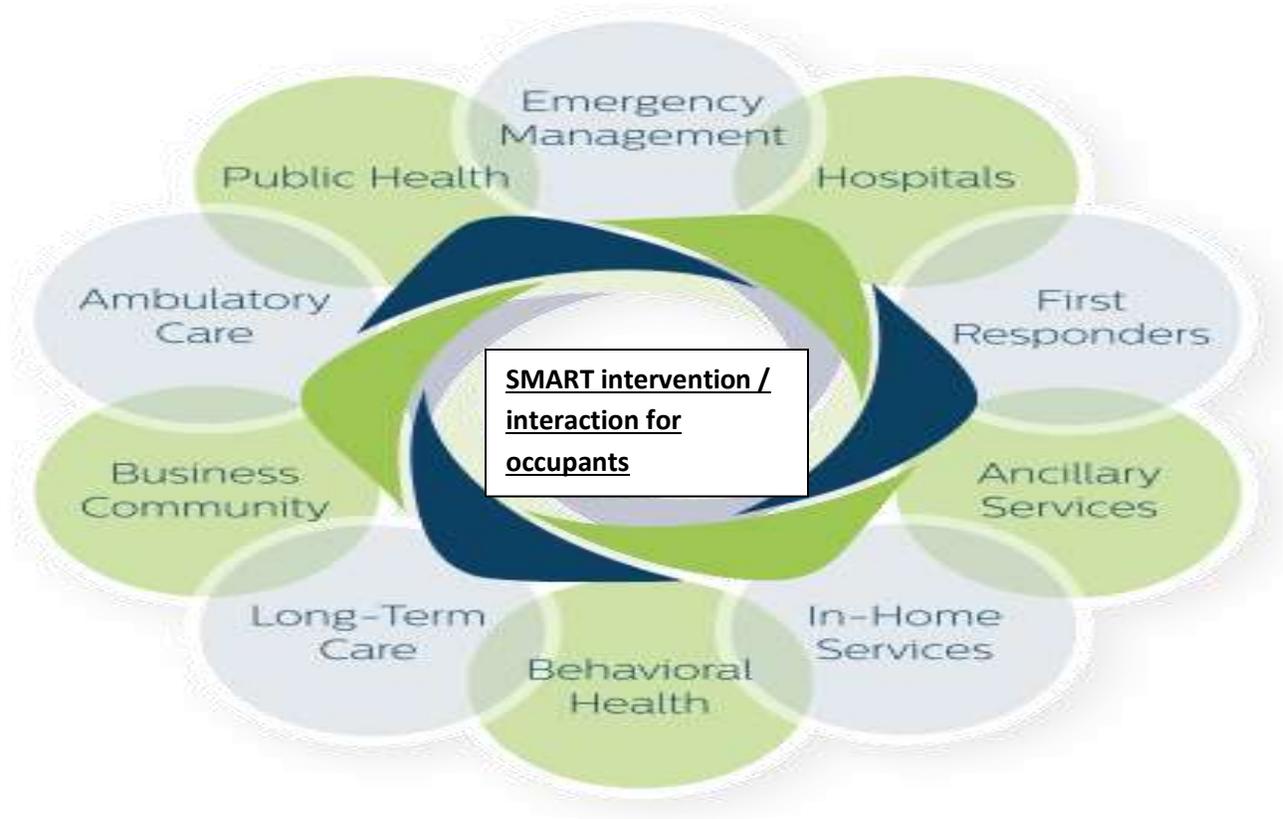


## R+ Analytics and Solution Deployment for Risk Mitigation

By, K.S.Venkatram (Gap Analyst, AOEC 2020-2021)



### Emergency Response Network

- A Relevant proposal for Emergency Response Services

#### A. Current Questioning

Most countries & cities are known to need emergency response services

Emergency response services are provided by different agencies operating ambulances (that are of the air ambulance (in special circumstances) and on-road ambulance or rail ambulance categories), specific to cause disaster management teams, armed forces or even special task forces. In Karnataka, the first responders are the Karnataka Fire and Emergency Services department.

Importantly most cities have different requirements and systems for such response.

Today most cities need dedicated & exemplary services that can act for or mitigate accident, anti-government or climate change related risks and threats, where sufficient attention is also given to manage prone-to-disaster locations or hazardous places that have a likelihood of becoming disaster stricken.

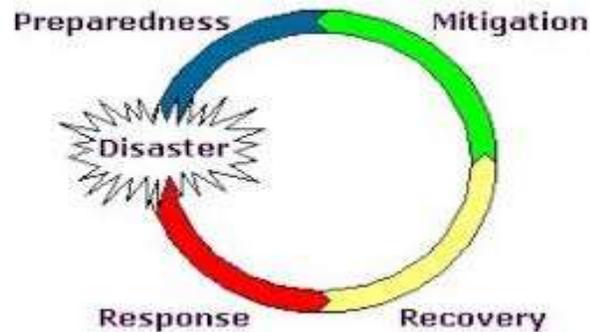
2019 and 2020 being years known all over the world for the COVID 19 health threat. Disaster preparedness is the insightful need.

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This reckoner revisits the need to design and implement an Emergency response network that can notify, alert, protect or assist people in different circumstances (with or without SMART intervention for occupants) at any location be it a busy road or remote area, water body, dwelling, building or facility, others like (railway track, flyover, bridge, tunnel) etc.,

### B. Purpose of such an Emergency response network



An emergency response network will rely on specialized infrastructure, systems, technicians, methodologies and curriculums that continually review & improve the network's procedures, skills and ability to provide 24/7 assistance, incorporate SMART mitigation and act swiftly to protect and save life

The SMART mitigation will need to incorporate LifeScore relevance. As part of the Green Globe responsiveness expected at a site, there will be appropriate codes and interlinks that help a disaster mitigation or management team intervene or operate adeptly.

**LifeScore codes for an occupant or occupant group example could be:** Physical ability - Mental ability - Acclimatized ability - Liability to respond or mitigate risk - Life changing condition - Life support requirements – Needs Wear-ons

**LifeScore Interlinks could be for example:** Related reflection of LifeScore for that category, where this helps critical thinking for problem solving, reasoning and evaluating

The details of this are in the proposal called “Green Globe Codification” and “LifeScore Card (Card)”.

### C. Reckoning

Cities do not have augmentation maps that can help an Emergency response network know more to act swiftly to provide emergency response services for vulnerable locations like Road systems, Tourist spots, Tunnels, Bridges, Flyovers, Public Facilities, Residential or commercial buildings, Mud or brick dwellings, Weak structures, Water bodies, or important zones like Railway stations, Bus stands or main terminuses, Metro rail stations, Airports, etc.

An augmentation map will need to consider issues like languages used, or illustrations used, or lack of relevant or sufficient information to be part of its specification.

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It should incorporate a norm or protocol called coordinates design to ensure that the signage, signboard or signpost at a location or zone is sufficiently **INFORMATIVE**, improves **AWARENESS** and **ASSISTS** the person needing it.

A well-formulated Signage Model can help a city build illustration, vocabulary and language inclusion in all signage, signboards and signposts to address a need for awareness, disaster mitigation and management.

An augmentation map is not a typical layout of a location or zone, it includes premium information about services such as

### **1. Disaster Management and/or Emergency Response requirements**

**2. A Disaster Management and/or Emergency Response Advisory and a (dedicated to nature) Emergency Response Network Call Centre facility** which helps a triad of authorities like the Police, Traffic control departments and Emergency Service (KFES for example and healthcare) providers or Disaster management authorities identify need, triage situations, conditions and issues to take corrective action or initiate assistance

**3. Need for key—emergency response or disaster management practices** that need to be enabled or planned for due to nature of location, or types of people or people identities visiting the location or zone.

SMART intervention for occupants will need to be incorporated today.

As people visiting a location or zone need different kinds of emergency response services, this proposal categorizes people that may be affected as Children, Teenagers, Adults, Elders, Working class people, Business class people, Government officials, Aged, weak or sick people, Blind or handicapped people, Tourists etc. It is proposed that LifeScore Cards be issued to sites or if relevant to occupants to help responsiveness.

The proposal also highlights the skills needed by Emergency Medical teams, that is

### **1. EMT Category1: Emergency Response (Basic)**

Skills needed: Assessment, securing or sanitizing scene of incidence, extrication of injured or affected, splitting and bandaging, airway management with oral/nasal interventions, CPR or PASC application.

With the COVID-19 health threat looming over us, People Welfare Systems and (proposed) Companion Health Cards can make it easier for CPR or PASC application. With the emergence of drugs, medicines and immunizers we may address COVID 19 incidence, but the possibility that this may revert back or resurface is a proportionateness we do not want to miss while planning emergency response or disaster management.

**Cardiopulmonary resuscitation (CPR)** is an emergency procedure that combines chest compressions often with artificial ventilation in an effort to manually preserve intact brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person who is in cardiac arrest.

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PASC stands for Preliminary Administrative Services Credentials

### **2. EMT Category 2: Emergency Response (Ambulance)**

Skills needed: Basic skills + general driving or vehicle specific driving experience + awareness of ambulance pre-requisites, practice, operations and legal responsibilities

### **3. EMT Category 3: Emergency Response (Intermediate complexity)**

Skills needed: Basic skills + shock management + IV therapy + trauma evaluation + pre-hospital assessment or triaging according to established protocols

### **4. EMT Category 4: Emergency Response (Defibrillation skills)**

Skills needed: Basic skills + use of manual, semi-automatic or automatic defibrillator + recognition of VF patterns via the development of cognitive skills. Here **Ventricular tachycardia (V-tach or VT)** is a type of regular and fast heart rate that arises from improper electrical activity in the ventricles of the heart

### **5. EMT Category 5: Emergency Response (Paramedic)**

Skills needed: Intermediate complexity skills + insertion of endotracheal tubes, administration of emergency medications + ability to assist physicians + ALS skills

**With more inference for connected involvement and influence on need proportion**, ALS skills could include

- a. Airway **Management** and Ventilation.
- b. Cardiovascular Emergencies.
- c. Patient Assessment and **Management**.
- d. Vascular Access and Medication Administration.
- e. Medical.
- f. Trauma **Management**.
- g. Neonatology and Obstetrics
- h. Operations.
- i. People Welfare System (with First Aid guidelines) and (proposed) Companion Health Card response (for SMART mitigation of the COVID 19 health threat)

The proof of concept website for this is:

[www.venkataoec.wixsite.com/rplus-analytics](http://www.venkataoec.wixsite.com/rplus-analytics)

The proposal also highlights the skills needed by Emergency Service Teams as

1. EST Category 1: Responding for natural or man-made disasters where there are different categories needing specific response

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2. EST Category 2: Assist in response for hostage situations, terror attack or bomb threats

**3. EST Category 3: Assist in response for strike, mob violence, curfews or restricted movement specific response**

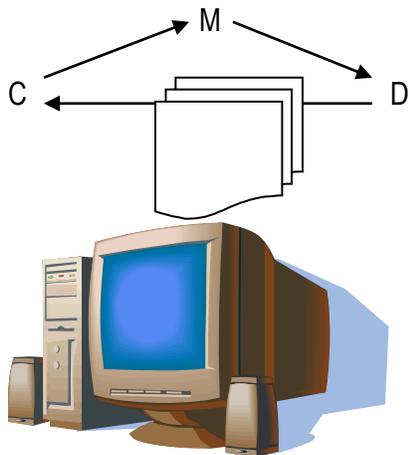
4. EST Category 4: Assist in ride operator specific accident relief, crime surveillance, incident specific response and remedial action

**5. EST Category 5: Ability to assist handicapped, disabled or afflicted in times of need**

**6. EST Category 6::Ability to assist Centralized Accident and Trauma Service (CATS) teams**

**7. EST Category 7::Ability to assist Normal or Advanced Life Support Ambulances**

### D. Emergency Response Services Help Desk



C stands for Coordination

M stands for Management

D stands for Dissemination

CMD Role 1 - Publishes Alerts, Advisories, Warnings, Incidence reports, Feedback forms to improve safety, commuter health accountability, mitigate or control crime occurring in public and private transport vehicles, suggestion forms, complaints redressal forms

CMD Role 2: Establish / Ensure availability of the emergency response network

CMD Role 3: Implementing surveillance & alarm or alert specific response systems, revitalization, expansion or extension, upgradation, regular screening, functional relevance and performance assessment of the network and the working of its associated teams

CMD Role 4: Establishes and implements levels of networking between Police, Traffic Controllers, **Risk Mitigation Councils**, Fire brigade, Ambulances, MHU(s), Private or Government hospitals providing accident and emergency services, Armed forces medical facilities, Disaster Management departments, Civic administration, Governing authorities, **Civil Defence (like in India)**, Karnataka Fire and Emergency Services (in Karnataka), Armed forces, **Volunteering groups, NGO(s)**, Red Cross etc

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### **E. AOEC's toolkit offerings**

Documentation on improving awareness, sensitization & preparedness for Disaster Management and Emergency Response Services is included in AOEC's toolkit offering for Sustainable Commuting

The proof of concept URL is

[www.venkataoec.wixsite.com/safercommuting](http://www.venkataoec.wixsite.com/safercommuting)

You can ask for more details on any of the work-in-progress by calling the consultant on +919342867666 or by emailing [venkataoec@gmail.com](mailto:venkataoec@gmail.com)