Towards Disaster Management

Part 2

Impact phase?

Raising the alarm?

Post impact phase?

Pre-disaster phase?

Readiness and Mitigation

Reckoner

A Guide for Readiness & Mitigation

Understanding your facility or building

Understanding your facility or building

- Name of the facility or building:

- Year built: Current age:

- Built by:
- Renovated or expanded by:
- Maintained by:
- Working days / hours:
- Number of house-keeping and maintenance staff:

- Facility or building used for (Tick as applicable): Central government services/ State Government services/Business purposes/Education purposes/Education and Residential purposes/Other purposes

- Classification of services available at facility or building:

Understanding your facility or building

- Is the facility purely for children of government officials (Tick as applicable)? Yes/No
- Do VIPs / foreign delegates make visits (Tick as applicable): Yes/No
- Is the facility visited by general public (Tick as applicable)? Yes/No
- Is the facility visited by aged people (Tick as applicable)? Yes/No
- Does the facility include a dormitory or hostel for children (Tick as applicable)? Yes/No
- Is the facility constructed to help the handicap or differently able?
- Are contractual agreements used in running the facility or building? Yes/No
- Name(s) of contractors or third party companies:
-
- Working days / hours:
- Number of contractual staff:

Understanding your facility or building

- Any disaster risk probability assessment available for the facility or building?
- Yes/No. If yes, is the facility or building vulnerable? Yes/No

- **Nature of vulnerability:**

Part 1 (TOC)

Contents **Page**

Disaster Management in India

(Basic Edition from a Secondary level school curriculum reference)

Disaster Management in India

Vision: To build a safer and resilient India by developing disaster management preparedness, readiness and management via independent action or through collective efforts of concerned government agencies and non-government organizations.

Responsibilities defined for disaster management

1. Elaborate response mechanism at the national level (by the Ministry of Home Affairs, the Ministry of Agriculture, the Ministry of Civil Aviation, the Ministry of Railways, and the Ministry of Health & Family Welfare)

2. Central government provides logistic and financial support

3. Though a statutory responsibility of state governments, responses vary at the state level

4. Not a statutory responsibility for government and non-government organizations, private organizations, public facilities, residential buildings, schools, colleges etc

Disaster Management in India

Integrated administrative machinery for management of disasters

1. At the national level by nodal ministers
2. At the state level by the department of relief and rehabilitation, or by the department of disaster management
3. At the district level by the office of the district magistrate
4. At the group of villages or block level by the office of the panchayat samiti
5. At the village level by the village disaster management committee

Disaster Management in India

Response from the Central government is based on

1. Gravity of the disaster
2. Scale of relief operations or rehabilitation programmes
3. Requirements of the central government for augmenting resources, logistic support and financial support available at the state government
4. The Ministry of Home Affairs for disaster management for natural disasters except drought
5. The Ministry of Agriculture for disaster management in scenarios like drought
6. The Ministry of Health and Family Welfare for disasters like epidemics
7. The Ministry of Home Affairs for disasters like nuclear disasters

Disaster Management in India

8. The Ministry of Home Affairs for disasters like chemical disasters

9. The Ministry of Home Affairs for disasters like biological warfare or biological disasters

10. The Ministry of Civil Aviation for disasters like air accidents

11. The Ministry of Railways for disasters like railway accidents

Disaster Management in India

The following bodies are responsible for disaster management at the central level

1. Union cabinet headed by the Prime Minister

2. Group of ministers headed by the Prime Minister

3. National Crisis Management Committee under the chairmanship of the Cabinet Secretary

4. Crisis Management Group under the chairmanship of the Central Relief Commissioner, senior ministers and other concerned departments (that together review contingency plans, definition of measures for dealing with disasters and to carry out coordination at the time of disasters)

5. Technical organizations like the Indian Meteorological Department, Central Water Commission (Floods)

6. Building and material promotion Council (construction laws)

Disaster Management in India

7. Defence Research and Development Organization (for mitigation of nuclear or biological threats)

8. Director General of civil defence to provide support for coordination of disaster response and management

9. Bureau of Indian Standards (norms)

Disaster Management in India

As the government alone cannot handle the task of disaster management, in addition to national, state, district and local level organizations, there are various institutions involved in disaster management i.e.

1. UN Disaster Management Team, India
2. Armed forces (like the army, navy and air force)
3. Civil Defence
4. Home Guard
5. National Cadet Corps
6. Other organizations and bodies like the NSS, Sangathans

Disaster Management Readiness (Basic Edition)

Disaster Management readiness

In an increasingly competitive and changing world, it is organizational readiness that gives an edge. Having a plan for Disaster Management today, can help a team of people demonstrate effectiveness in situations/mass emergencies and also save lives or reduce chances of uncontrollable incidences.

As part of a Disaster Management Programme, one could design a Disaster Management pamphlet to describe what a disaster is and how the facility/ building/organization/associated community is ready to manage an occurrence specific to its vulnerability. The pamphlet will include details of certain One Point Contact for Governance indicators that are thought important while dealing with an occurrence.

The sample pages describe information that could be part of the Disaster Management pamphlet. This preview is also followed by a section on the various details thought crucial while dealing with an occurrence.

Disaster Management and Safety

What is a disaster?

WHO defines a disaster as any occurrence that causes damage, disruption, loss of human life and sudden deterioration of health and health services on a scale sufficient to warrant an extraordinary response from outside the affected community or organization or area.

What are the needs of a disaster affected community or organization?

The needs depend upon a number of factors like

+ The type of disaster

+ The resources of the community or organization

+ It’s degree of preparedness, availability of a master plan

+ The stage in the disaster’s evolution or deterioration

Disaster Management and Safety

What does this mean to a government, non-government or private organization or community?

An organization or community must be organized and ready to act in a disaster or mass emergency situation. A well-prepared or well-informed organization or community will already know what is needed to provide crucial information or take decisive steps for relief and restoration services / programmes.

Understanding phases of any disaster

+ The Pre-disaster phase

+ Raising the alarm or being on the alert phase

+ The Impact phase

+ The Post impact phase

Disaster Management and Safety

What does a organization or community have to do to address disasters or emergency situations?

All organizations or communities have to be prepared for 3 kinds of disasters

+ Internal disasters like a fire or an explosion or a security breach
+ External disasters like an earthquake, collapse of a building/part of the building
+ Forewarned disaster like the outbreak of an epidemic

What does a organization or community have to do for each phase in a disaster?

Pre-disaster phase: Risk assessment or mitigation

Alert phase: Utilization of a window or duration of time available for preparedness accordingly (if this is possible for a disaster category)

Impact phase: Utilization of prior planning or preparedness to activate a response mechanism, Switching over to alternate systems, updating of status of response

Disaster Management and Safety

measures and if necessary coordinating for outside assistance.

Post-impact phase:

+ Evacuation / Rehabilitation / Relief

+ Establishing of, continuing of a triage to take decisive remedial action to ensure healthcare services for the afflicted, injured or sick (termed as SMART or as relevant healthcare)

+ Re-establishment of primary services

+ Initiating of restorative programmes

+ Re-establishment of sanitary support to prevent outbreak of epidemics

Disaster Management and Safety

What is triaging?

It is a methodology to help your disaster management team act on a person's untreated but preliminarily injured condition. This keeps in mind that the person injured due to the disaster or accident is incapable of action, or is unfamiliar with the need for treatment (or may even be from a far off area, another city, state or country).

The triage system categorizes a person's need for healthcare under different conditions such as:

a. Category 1: Critical / will need to be rushed to a hospital and needs resuscitation

b. Category 2: Serious / Needs medical treatment immediately but can wait for an ambulance

c. Category 3: Urgent / Needs medical treatment within an hour

d. Category 4: Simple / Needs care when possible

e. Category 5: Needs to be kept under observation but this can be done as relevant on one's own responsibility

Disaster Management and Safety

A common checklist to understand an organization's readiness for disasters or emergency situations?

1. Review report of likely disaster scenarios
2. Review report of the organization's capabilities, strengths and weaknesses to work in a situation
3. Forming of a Disaster Management committee
4. Preparing of a plan so it includes the following:

+ Identification of a Command post & alternatives at the disaster site
+ Development of a system to sound a disaster alert
+ Development of a triage system to categorize steps to be taken according to severity or priority
+ Reception of casualties from other afflicted areas of the facility
+ Providing or arranging to provide healthcare services to the afflicted or the injured (termed as SMART or as relevant healthcare)
+ Disposal of dead bodies (if relevant)

Disaster Management and Safety

+ Development of good communication systems
+ Well-planned first-aid kits and supplies
+ Well-placed, sheltered or relocatable Equipment and machinery
+ Plan for handling of public relations
+ Plan for management of movement within the organization and planning of efficient traffic control
+ Plan for mobilizing of additional manpower and volunteers
+ Plan to prevent health hazards and infections

5. Programme for Rehearsal of plan

6. Quality Assurance in Updating of plan

Disaster Management and Safety

While designing a disaster management plan there are certain elements that are crucial for the organization or community

1. Roles and functions that are important are that of the

+ Disaster Management coordinator
+ Facility Administrator or Building Administrator or Manager
+ Department Heads
+ Health officer/staff trained in providing first-aid (termed as SMART or as relevant healthcare)

2.Important or connected departments are

+ The Administration department
+ The Evacuation Team

Disaster Management and Safety

3. Support areas or units important are

+ Housekeeping services
+ Public Relation
+ Communications
+ Transportation
+ Maintenance or Engineering department
+ Security and Safety services
+ Media relations etc

Disaster Management readiness

These details are thought important for the staff/occupants/visitors while dealing with an occurrence

1. Steps to be taken during the occurrence

2. Indication of any screening done aprior to tag occupants/visitors and offer help/relief

3. Location of the suitable Command post at the disaster site with details on how to get there

4. Fire-exit routes or pictorial plan of all exits that can be used during a fire

5. Name and contact details of the Head of the Evacuation Team

6. Name and contact details of the Head of the Disaster Management committee

7. Name and contact details of the Building/Facility Administrator or Manager

Disaster Management readiness

Added to this, an organization or community could also go in for exclusive Gap analysis for Disaster Management readiness, wherein a customized report will be generated after an interview with your Facility Administrator or Building Administrator or Manager.

Part 2 (TOC)

Organizational or community preparedness?

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Organizational preparedness

There are three aspects to being organizationally prepared to mitigate and manage disasters i.e.

1. Identification of rescue capacity of the organization or community via quick reaction teaming and swinging into action formations
2. Identification of transportation capacity of the organization or community to help shift injured/sick/ailing to other associated or available healthcare providers
3. Identification of treatment capacity of the organization or community in both scenarios when the disaster site is at the same location or when injured/sick/ailing are being transferred into the organization for immediate treatment and relief (termed as SMART or as relevant healthcare)

All three capacities are measured on the basis of number of victims that can be rescued/relocated/treated per hour, given that the seriousness of the situation and conditions of the injured/sick/ailing can vary depending upon the type of disaster.

Organizational preparedness

All three capacities must be related to or synchronized while associating with nearby hospitals and other healthcare providers to provide relief during disasters.

Mitigating disasters

Advances in science, methodologies and technology have made it easier for organizations interested in mitigating disasters via proactive measures like the following i.e.

1. Creating more awareness for the need for disaster management
2. Ensuring rules and regulations are laid down or followed to improve safety from disasters
3. Planning of systems and procedures to help improve safety from disasters
4. Laying down regulations for plans of new constructions or inspecting & retro-fitting existing buildings to improve resistance to certain kinds of disasters

Organizational preparedness

Keeping this in mind, it becomes necessary for an organization or community to outline what it must continually assess itself for, to understand its readiness to mitigate and manage disasters. The following sections provide more details.

Self-assessment to understand readiness?

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Being responsive as an organization

An important aspect of a Disaster Management plan is to understand whether your organization or community is responsive today. A responsive organization or community is one that can successfully deal with continuous change, situational needs and emergencies.

To be responsive for disaster management, the organization or community must have a plan with internal checklists, processes, discipline to do exactly what is necessary and competence that comes through drills and rehearsals.

A responsive organization or community must have the following core organizational systems for effectiveness i.e.

1. A good directional system
2. Effective control systems
3. Efficient Operating systems/procedures

Being responsive as an organization

What is a **good directional system**?

From the disaster management perspective, this comprises of context like

1. Well-understood purpose that describes what the organization or community will do for disaster management

2. Readiness vision that describes what steps will be taken to be prepared. This includes what financial measures, internal business process measures, learning and training measures for staff and visitor/customer related measures the organization or community will include in its solution to ensure lives are saved and injuries are controlled during a disaster

3. Values that describe what disciplinary rules /attitude development the organization or community will set as targets to help its people conduct themselves as expected in the time of need. This also includes being open to ensure problems are identified early, confronted and solved to ensure efficiency

Being responsive as an organization

What are the common **effective control systems**?
What makes a disaster management plan efficient is the element of control that lies within the organization or community, here 2 factors stand out primarily i.e. organizational culture and strategy.

By **organizational culture** we refer to the following:

1. Cohesiveness of the staff or community to deliver for a purpose in a disaster/emergency

1. Addressing of individual belief systems that influence behavior of whether I am accountable, is it part of my job, what happens to my personal safety etc

3. Any norm or Decisions-support policy to simulate, monitor, and improve the overall effectiveness and efficiency with which people work together to deliver for the various Critical-to-Life saving / Quality characteristics, goals and objectives that matter in a disaster/mass emergency

Being responsive as an organization

By **organizational strategy** we refer to the following:

1. Explanations of why disaster management is important to the organization or community given the role it plays

2. An organization wide understanding of whom services are being provided to and how staff/occupants/visitors/people are inept in acting independently in a disaster/mass emergency

3. An indication of why readiness could matter in competitive differentiation when it comes to recognizing performance

4. Conducting of training, drills etc to ensure the staff/teams are physically and mentally prepared to act in a disaster/mass emergency

5. An identification of funding and incentives that will be associated with the disaster management program

Being responsive as an organization

The operating systems or procedures for disaster management must be well-rehearsed and easy to perform. These operating systems or procedures must include the following:

1. An organizational structure that is simple and transparent like having a Disaster Management committee, a dedicated team of staff who will shoulder much of the responsibilities & discharge specific duties during a disaster/mass emergency, and an Evacuation team that consists of staff who will help shift/evacuate injured/other people to safer locations.

2. A flatter organizational hierarchy that permits dedicated staff to take decisions as close to the problem as possible, where purpose, vision, values and strategy help drive what best can be done.

3. Well-thought of people management systems, where training, participation systems, added role play in objectives systems, incentive planning etc help bring

Being responsive as an organization

out positive involvement in the staff or team

4. Well-designed work processes/procedures/instructions that can be

easily followed, practiced or rehearsed. They must also be

+ Easy to perform and judge in mock drills or in actual conditions
+ Staff-centric and/or visitor-centric in ensuring lives are saved and injuries are controlled
+ Aware of the competence and skills available in the organization to ensure right decision-making or delegation
+ Aware of the intricacies and vulnerabilities of the building or facility to ensure best approaches are adopted
+ Able to coordinate multiple involvements like alerting, activation, evacuation or reception, triaging, allocation of services/reallocations/transfers of injured/ailing etc

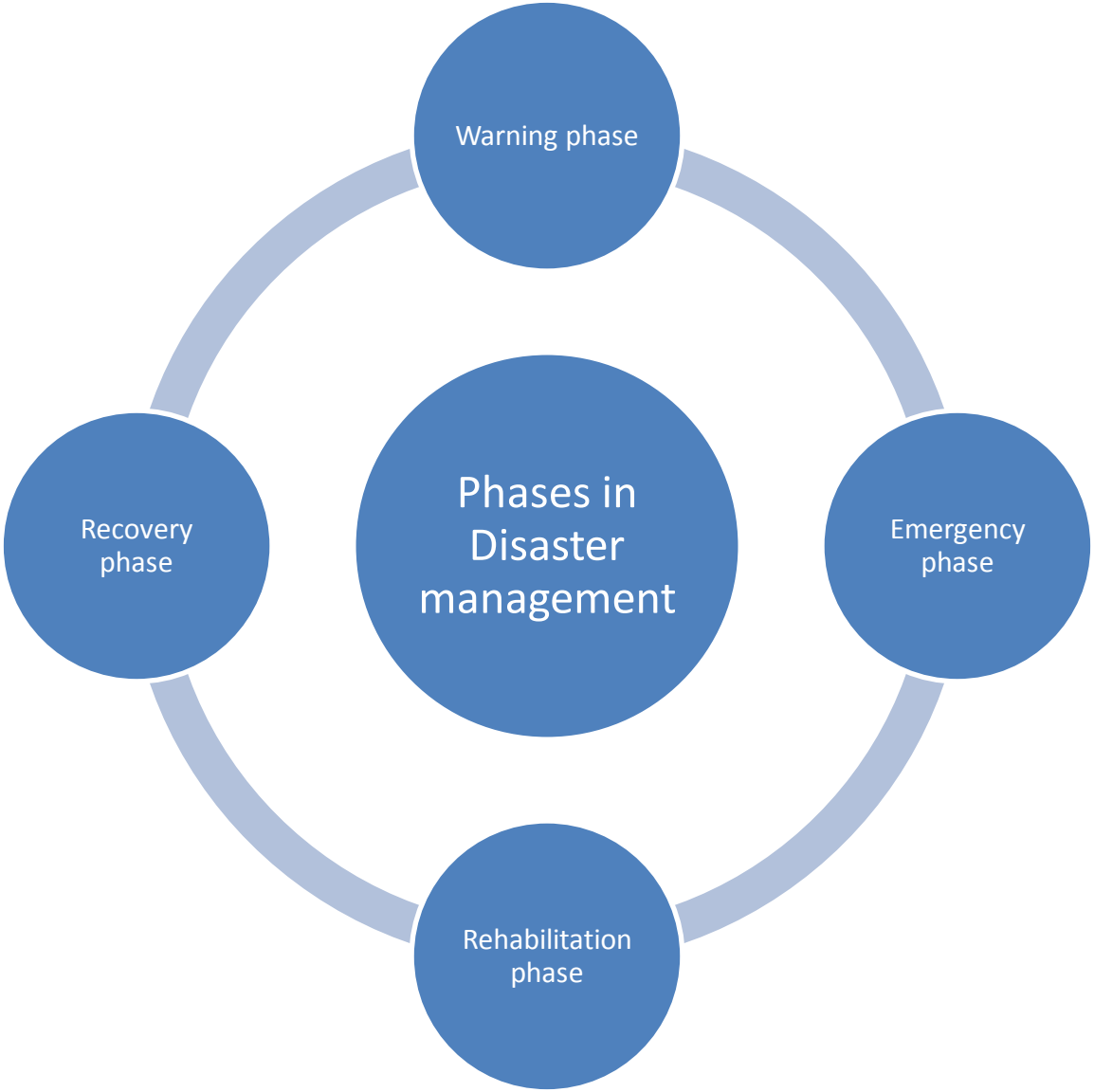
Key considerations in a disaster management plan

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Key considerations



Key considerations

Depending upon the role or services offered, your organization or community will be expected to do some of the following when a disaster occurs:

1. Diffuse the situation with well-rehearsed thinking

2. Provide best possible care to all the casualties

3. Save or help save as many lives as possible

4. Minimize the disabling effect of injuries, fractures, blood loss, incidence of infection etc (termed as SMART or as relevant healthcare in a non-healthcare organization)

5. Manage all casualties and people calmly without being overwhelmed by magnitude of occurrence

Key considerations

6. Establish the identities of persons affected, collect and safely preserve their belongings

7. Organize the resources / facilities required or make alternate arrangements with maximum efficiency so there is no oversight or negligence

8. Manage crowds, brief the press and public authorities

9. Provide for safe and alternate route mapping to ensure people can move around without hindrance

10. Assess the damage and workout a plausible repair and restoration strategy

11. Raise awareness about process of disaster management in staff, occupants and visitors

Key considerations

What is the first step?

Identifying of the measure of the potential of a disaster to cause damage i.e. this can be defined as the probability of harmful consequences or expected losses from hazards and vulnerable conditions.

Here hazards can refer to natural disasters and man-made disasters i.e.

1. Natural disasters like earthquakes, floods, cyclones, hurricanes, famine, heat wave, cold wave etc.
2. Man-made disasters like fires, explosions, collapse of building, epidemics, system failures etc.

Vulnerabilities can refer to:

1. Location of facility i.e. crowded neighborhood, isolated place, generally unsafe area, other inherited vulnerabilities due to geographical conditions
2. Type of services being provided, ineptness of staff/occupants/visitors/people to act independently for their safety

Key considerations

3. Presence of children, aged people, infirm or pregnant women
4. Mixed background of staff or people in the organization or community
5. Lack of disaster management awareness and education within the organization or community
6. Inadequate planning for disaster management
7. Social and economic backwardness of people living in and around the building/facility
8. Unplanned construction/expansion/aging of building/facility
9. Unplanned urbanization of location/locations in and around the building/facility

Disaster risk probability = $\frac{\text{Hazards relevant} * \text{Vulnerabilities that exist}}{\text{Capacity of the facility to bear disaster}}$

This probability can be rated as Controlled Impact, Low Impact, Medium Impact, Significant Impact, High risk etc, which then will drive what your organization or community will need to do for disaster management readiness and mitigation.

Key considerations

After identifying the disaster risk probability, the NEXT Steps are to develop strategies for Risk reduction and Risk Transfer.

Risk reduction involves

1. Designing of a Disaster Management plan where each hazard relevant to the organization or community will need a different type of preparedness
2. Designing of a Contingency plan reckoner to help answer crucial questions
3. Designing of a team charter to identify and coordinate work by all teams involved in disaster management
4. Development of a Risk Mitigation plan to reduce impact or severity of losses that occur during a disaster

Risk transfer involves

1. Getting insurance policies to protect the organization and its staff or community and its people against damages that occur
2. Arranging for contingency funds / disaster management funds

Key considerations

Designing of a **Disaster management plan** will include the following**:**

1. Sensitization meeting to bring about awareness of need for disaster management
2. Formation of the Disaster management committee, which will be the main decision-making body for formulation of policy and plan for disaster management. The committee can be constituted by the following members:
   a. Chief Administration officer/CEO/CFO/COO (if relevant)
   b. All heads of departments (if relevant)
   c. Facility Administrator or Building Administrator or Manager
   d. Health officer / staff trained in providing first aid
   e. Representatives of the staff or community
3. Hazard identification with details of any history of disasters, identification of any potential hazard, preparation of a seasonality calendar showing the months of occurrences of events and the months for preparedness & mock drills.
4. A detailed inventory of resources to be used for disaster management

Key considerations

5. Carrying out of a mapping exercise on various parameters like risks, vulnerabilities and capacity to deal with occurrences. Some of the maps that can be designed are as follows:

a. Facility mapping of vulnerable areas

b. Social mapping of (disaster management) trained staff or teams available, human resources available, vehicles & ambulances available, generators / diesel sets available, fire extinguishers available, water sources available, emergency/first aid treatment areas available, immediate evacuation areas, visitors waiting areas, control room, information/public relation counters, media rooms, volunteers reception areas etc

c. Staff mapping of kinds of staff/visitors/people that are incapable of independent action, have disabilities etc

d. Vulnerability mapping of types of disasters that affect location, location of electrical installations, treatment plants, tall/weak structures, old and defunct infrastructure, hazardous material being stocked, explosive material being stocked, staff/visitors at risk etc

Key considerations

e. Safe and alternate route mapping to give people an opportunity to use an unhindered path to reach safety during specific disasters

6. Selection of disaster management team and deciding of constitution of sub-teams or task forces to conduct core activities i.e. like

a. Early warning team
b. Disaster coordinator
c. Evacuation team
d. Damage assessment team
e. Relief team/trained staff
f. Facility management or Building management team
g. Trauma counseling team etc

7. Arrangement of training for each of the disaster management teams/task forces at the organization level, at the fire services department, at police headquarters, etc

Key considerations

8. Planning and scheduling of rehearsals, mock drills, updating of observations

9. Periodic gap analysis/preparedness assessment and updating of policy and plan

10. Maintaining of a disaster manual containing a step by step approach for doing things in a disaster situation

Key considerations

A Contingency Plan reckoner which helps answer crucial questions that form basic elements of the plan i.e.

Who	This specifies who does what
Whom	Whom to contact
Where	Where to evacuate people / provide first aid etc
When	When to bring different aspects of the plan to action
What	What to do in particular situations
How	How to do particular things that are needed for disaster management
Why	Why should things be done according to a plan, why should some things be done in unforeseen aspects

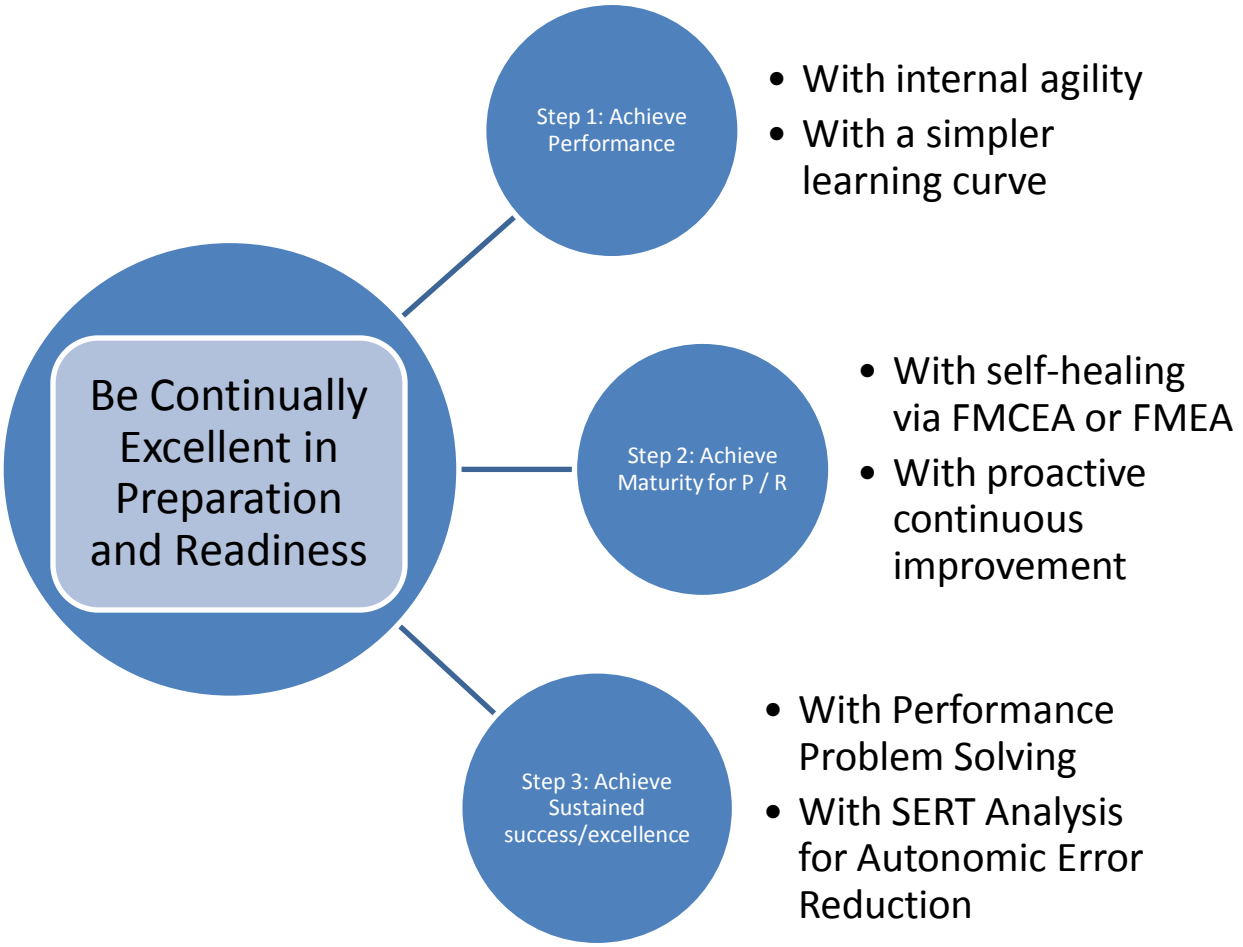
Key considerations

A **team charter (for all the teams involved in disaster management)** that outlines the following details:

1. Name of team and names of members
2. Who does this team report to?
3. Focus and content of work for the whole team and individual team members
4. What does this team and its members need to do their work, in terms of "Kaizen's 5Ms i.e. manpower, materials, machines/equipment, methods/SOPs, measurements"?
5. What is this team and its members accountable for?
6. What authority does this team and its members have to take decisions and commit to action?
7. What does meeting objectives seem like for this team and its members?
8. What else can this team and its members do?
9. What to do if things go wrong or when plans cannot be implemented?
10. How can this team and its members deal with stress, un-workability, trauma etc?

Key considerations

A 3-D axis policy for teams involved in disaster management



Key considerations

A **Risk Mitigation plan** should outline those activities that help the organization check or control the damage that can be caused during a disaster i.e.

1. It should involve **structural mitigation** to assess and ensure the buildings, installations and other construction activity conform to norms

2. It should also involve **non-structural mitigation** like
a. Legal framework planning and establishment
b. Land-use or space-use planning
c. Financial framework and incentives planning
d. Training and education
e. Awareness raising/sensitization

Checklists for structural mitigation

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Key considerations

When it comes to **structural mitigation** for hazard resistant construction, there are different norms and guidelines that need to be followed for each type of disaster

(A) For Earthquakes

We can make buildings, offices or living spaces earthquake resistant. The key considerations are as follows:

1. The design of a facility or building constructed on a seismic zone will vary from that of a building constructed in a region of higher seismic resistance. The design will take into consideration any ground shaking that will be major, medium or minor, and will reduce the risk of serious damage, collapsing structures and falling debris.
2. The building should be so constructed that it adheres to Building codes for structural and non-structural design measures
3. The structures should have high vibration energy absorption, seismic resistant steel should be used

Key considerations

What happens during an earthquake?

1. First is **the vertical or horizontal acceleration of the ground**, which moves suddenly sideways or upwards. If frame of building does not have enough sway strength it may fall down.

Norm/Guideline: Design sway resistance in steel used in buildings

2. Second is the **vibration from shock waves**, which causes oscillations. The oscillations can build up and produce greater sway loads until the building collapses or overturns.

Norm/Guideline: Improve ductility of steel frames of buildings

3. Third is the **after shock**, where buildings rely on internal walls or sheer bracing for sway resistance

Norms/Guidelines:

(a) Follow norms or guidelines for Building configuration

(b) Follow norms or guidelines for Foundation

Key considerations

(c) Follow norms or guidelines for control on openings in walls

(d) Follow norms or guidelines for control on wall length and building height

(e) Follow norms or guidelines for water-proofing of building

(f) Follow norms or guidelines for providing vertical reinforcement

(B) For Cyclones

To achieve hazard resistant construction for cyclones, we need to keep in mind the following points and needs:

1. The building must be protected from high-velocity winds
2. The whole structure should be designed in such a way that it can withstand lateral movement and uplift forces
3. Certain parts of the building such as the frames and gables should be braced
4. The connection between the roofs and the walls should be strengthened
5. Other protection measures could include

(a) Follow norms or guidelines in selection of site

(b) Follow norms or guidelines in planning orientation of building

Key considerations

(c) Follow norms or guidelines in deciding upon parameters for building foundation

(d) Follow norms or guidelines in deciding upon openings in the building

(e) Follow norms or guidelines in deciding upon paneling in the building

(f) Follow norms or guidelines in deciding upon roof and rooftop structures for the building

(g) Other norms or guidelines are installing of wind-break fences and planting of shelter belts in the direction of the wind, if building is in the country-side, or out in the open

(C) For Floods

There are various mitigation measures to control damage to buildings due to floods, some of them are

(1) Selecting site such that it is away from flood plains or away from large water bodies that can flood

(2) If it is not possible to select a site away from flood plains or large water bodies, then it is important to follow certain mitigation measures like

Key considerations

(a) Follow norms or guidelines to elevate the building so as to keep the lowest floor above flood level

(b) Making the building water tight to restrict entry of water (blocking of doors, windows and air vents with boards, use of coal fly-ash in construction of embankments or dykes)

(c) Making the exposed parts of the building resistant to water damage (use of coal fly-ash as it has self-cementing properties)

(d) Designing sloping rooftops, basements, driveways and suitable storm water drains to help prevent water logging in manageable circumstances

(D) For Landslides and Mudslides

There are certain mitigation measures that can control damage to buildings due to landslides or mudslides, they are as follows:

(1) Selecting proper sites for construction

(2) Avoiding cutting down of trees to make way for construction sites

(3) Planting trees on open or unconsolidated slopes of hilly areas

(4) Constructing channels or drainage systems on slopes

Key considerations

(5) Constructing retention structures
(6) Constructing deflection structures or protection walls
(7) Constructing wide ditches around building

(E) If building or facility on a hill, one needs to watch out for the following warning signs:

(1) Sudden jamming of doors and/or windows
(2) Cracks appear on plaster
(3) Cracks on the ground or paved areas begins to widen slowly
(4) Water distribution lines, under-ground utility lines break
(5) Walls either tilt or move
(6) Outside walls or stairs pull away from the main building
(7) Fences or poles tilt or move
(8) Ground at base of slope swells up
(9) Water appears at the base of the slope

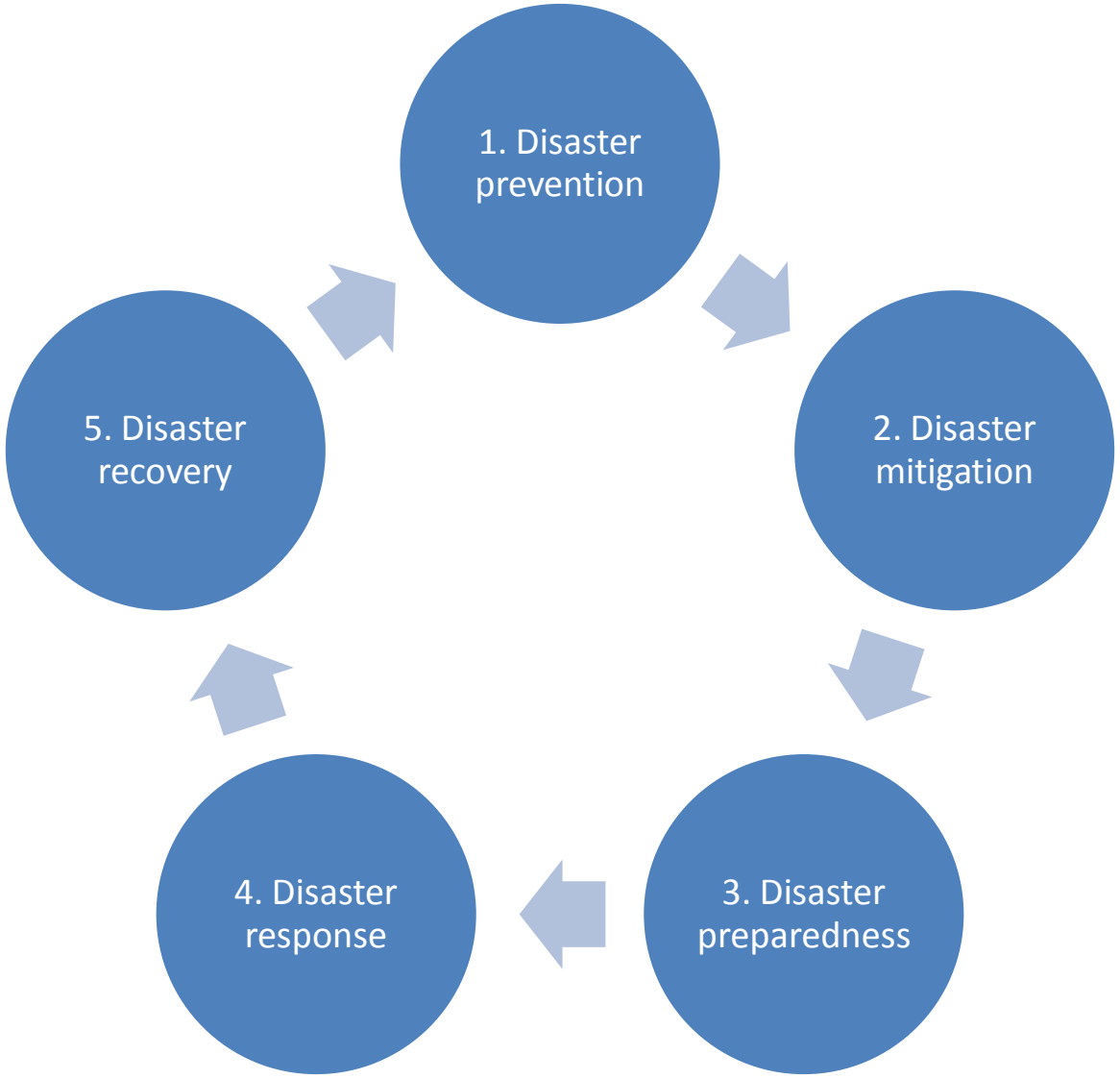
Checklist for the preparation of a disaster management plan

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Steps in disaster management



Steps in Disaster Management

Disaster Management preparation and readiness should ensure the following:

1. Preparation of a comprehensive plan and Disaster manual

2. The plan should describe the chronological sequence of actions to be taken starting from disaster identification to the system of activation of the plan etc

3. The plan should include identification of areas for reception, triage, resuscitation, treatment and/or for keeping of dead bodies

4. The plan should include allocation of tasks and distributing of duties to the disaster management teams and staff

5. The plan should include a policy and procedure for passing on and exchanging information with civil authorities

6. The plan should include a process to arrange for emergency supplies / first-aid (termed as SMART or as relevant healthcare)

Steps in Disaster Management

7. If applicable the plan should arrange for special treatment procedures in case of a chemical gas leak, nuclear radiation, poisoning, burns etc (termed as SMART or as relevant healthcare)

8. The plan should identify a location and help setup a Control Centre

9. The plan should also help generate aprior sufficient number of forms for identity tags, lists of casualties, list of valuables (possessions of casualties) etc

10. The plan should include a documented procedure for triaging and allocation of prioritized care to treat casualties so they receive maximum benefit

11. The plan should include a procedure for delivering first aid (as possible) to casualties and incidence specific directives or counseling to affected people on site

12. The plan should include a procedure for getting assistance or for transfer of casualties to nearby hospitals

Steps in Disaster Management

13. The plan should include a procedure for the stop-gap provision of food/safe drinking water to the casualties

14. The plan should include a procedure for crowd management

15. The plan should include a procedure for efficient management and quick disposal of dead bodies

15. The plan should include a procedure for quick and efficient communication

16. The plan should include a procedure for immediate and periodic briefing of public and press

17. The plan should include a programme for carrying out mock drills with regular periodicity (as realistically as possible) at different times of the day/night

Steps in Disaster Management

18. The plan should include a procedure to maintain a documented record of every mock drill to help identify deficiencies and lacunae in the disaster management process

19. The plan should include an outline of how a written record should be maintained about each disaster handled by the organization or community, with details on problems faced, un-workability seen, lessons learnt etc

Checklist

What are the **main areas that a plan or "gap analysis checklist" must consider**?

1. General points about organizational readiness
2. Points about organizational structure, clarity of purpose, vision, values and strategy
3. Details about the kind of site/facility/building that this organization or community is operating from? For an organization, details about whether the location is the headquarters?
4. Points about Alerting and procedures
5. Points about Activation and procedures
6. Points about the handling of casualties and triaging
7. Points about how different areas will be integrated for immediate evacuation
8. Points about maintaining of alternate or viable schedules of accommodation
9. Points about reallocation and transfer of injured to ancillary or alternate accommodation
10. Points about planning for and arranging for emergency supplies / first aid
11. Points about transportation facilities
12. Points about physical infrastructure availability/alternatives planning

Checklist

13. Points about evacuation / relocation procedures
14. Points about occupational safety
15. Points about dealing with incidental bio-medical waste handling
16. Points about arranging for emergency mortuary facilities or methods to dispose of dead bodies
17. Points about inter-sectoral coordination
18. Points about public relations, liaison, planning with government authorities and volunteers
19. Points about immediate relief/recovery
20. Points about long-term repair/restoration and development

Measuring the effectiveness of the plan

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Disaster Management planning

Some of the indicators of the quality of a good disaster management plan are:

1. Awareness and compliance for in-built safety of infrastructure

2. The completeness of the plan, disaster manual and process for disaster management for all possible contingencies including periodic reviews incorporating inclusions or changes for deficiencies found and corrective actions taken during mock drills

3. The time taken for informing teams and staff during mock drills

4. The response time of teams and staff

5. Time taken for teams to be in their respective places ready to discharge duties

6. Number of casualties taken care of or rehearsal cases and time taken for completing emergency resuscitation and documentation

Disaster Management planning

7. Time taken to arrange for alternate emergency supplies / first-aid

8. Time taken to setup Command post or Control Centre

9. Time taken to setup reception area, treatment area, additional safe areas etc

10. Cases addressed efficiently to avoid loss of lives, organs, or limbs

11. Effectiveness of remedial thinking shown to address unexpected problems without any issues

12. Adequacy of thinking for Disaster risk probability where this is equal to

$$\frac{\text{Hazards relevant} * \text{Vulnerabilities that exist}}{\text{Capacity of the facility to bear disaster}}$$

Measuring effectiveness

Your organization or community can measure the effectiveness of your disaster management solution by the following:

1. Designing and Implementing of a Disaster Management Performance Program on the lines of an Organizational Performance Program
2. Carrying out mock drills or rehearsals twice a year.
3. Revising, updating and modifying the plan and checklists based on the experience during the drills/rehearsals
4. Evaluating best approaches for all 5 steps of disaster management by periodic gap analysis or self-assessment
5. Maintaining a performance summary for all 5 steps of disaster management via tabulations based on details for key components, key considerations, key performance measures, key responsiveness seen or key results seen.

You can avail of templates for measuring your effectiveness for mitigation by ordering for the toolkit on sustainability. The details shared via this guide are not an end but just a beginning on what your organization or community may need to understand whilst putting together a disaster management solution.

Considerations for non-structural mitigation

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Key considerations

When it comes to **non-structural mitigation** for disaster mitigation and management, there are different norms and guidelines that need to be followed for aspects like

(1) Planning of first-aid

(2) Availing of mobile healthcare units (depending upon need)

(3) Building awareness of the need for public education and protecting of rights of afflicted people

(4) Designing of a health-education plan to counsel, advise and offer relief to the afflicted

Key considerations for First-aid (Basic Edition)

By,
K.S.Venkatram
AOEC & SSHGIEC, 2016

Key considerations

What is First-Aid?

Measures to be taken immediately after an accident not with the idea to cure, or to replace services offered by the medical community but to prevent further harm from happening.

Main objectives of First-Aid

(1) Protect and preserve life
(2) Prevent afflicted person's condition from worsening
(3) Promote well-being and recovery

Goals of First-Aid

(1) The immediate priority being to restore and maintain the vital functions of the injured person via certain steps for basic life support

(a) Ensuring the AIRWAY is open so that the injured person's body gets a proper supply of oxygen

Key considerations

(b) Enabling and ensuring BREATHING so that oxygen passes through lungs into the blood stream

(c) Helping and ensuring CIRCULATION where there must be circulation of blood to all parts of the body, so that there is sufficient supply of blood and oxygen

Simple 5 step Action Plan

It is necessary to check if the injured has any life-threatening conditions, where the plan of action includes the following steps:

(a) Check for further DANGER at location or spot, if so, then move the injured person away carefully

(b) Check for RESPONSE, shake gently, if conscious check for injuries

(c) Check AIRWAYs to see if they are blocked, clear any loose material in mouth

(d) Check for BREATHING by looking for chest rise and fall, or by listening to breathing sounds, or by feeling breath on cheeks or hand.

Key considerations

If there is no breathing, roll injured person on back with face upwards. Tilt head. Loosen and separate jaws to open airway. Give mouth to mouth resuscitation.

If there is breathing, place injured person in stable position (sometimes a stable side position is preferred) and check for injuries.

(e) Check CIRCULATION, feel pulse in groove beside Adam's apple.

If there is a pulse, if needed perform mouth to mouth breathing
For children: 20 breaths per minute by puffing and blowing gently
For adults: 12 to 15 breaths per minute by blowing fully

If there is no pulse, perform Cardio Pulmonary Resuscitation (CPR). As this needs skill and training, ensure one who is trained does this.

Key considerations

(A) Fainting or losing consciousness

Loss of consciousness in times of disasters has many causes associated with it i.e.

(1) Trauma caused by severe distress

(2) Fainting on account of fatigue or lack of oxygen

(3) Head injury, spinal cord injury

First-Aid (Do's)

1. Under circumstances, prevent person from falling
2. Lay the person on back facing upwards
3. Tilt head back
4. Keep arms at right angles to body
5. Raise legs 8-12 inches to promote blood flow to brain
6. Pinch the person gently to check for response
7. Examine body for injuries
8. Keep a record of condition of person to help medical assistance

Key considerations

(A) (Continued) Fainting or losing consciousness

First-Aid (Do not's)

1. Do not crowd around the injured person
2. Do not allow the person to get up and move around immediately on regaining consciousness
3. Do not give water or juice to the person as soon as he or she regains consciousness

(B) Bleeding from cuts, wounds or punctures

First-Aid (Do's)

1. Wear gloves (if possible) while attending to the injured person
2. Try to stop bleeding by elevating injured part or by applying pressure. Handle with care if fracture is suspected
3. Bandage the injured area to stop bleeding and to prevent infection of wound
4. Give a tetanus injection if required
5. If the injured person loses consciousness, apply **5 step Action Plan**

Key considerations

(C) Burns

First-Aid (Do's)

1. Wrap with blankets or non-inflammable material to put off fire
2. Wear gloves (if possible) while attending to the injured person
3. Cool the burn – immediately apply cloth soaked in cool water for at least 5 minutes till pain subsides
4. Cover the burn – cover the burnt area with dry sterile gauge bandage but do not use cotton or any other fluffy material
5. Give an over-the-counter pain reliever
6. Take off clothes or jewelry covering burn area before swelling or blisters appear

First-Aid (Do not's)

1. Do not remove cloth stuck to burn area
2. Do not wash burn area under extreme water pressure
3. Do not apply oil or ice on affected area
4. Do not attempt to puncture or break blisters

Key considerations

(D) Electrocution

First-Aid (Do's)

1. Cut off the power supply
2. Move the person away from source or spot using a non-conductive material
3. Check for breathing, carry out **5 step Action Plan** or **CPR** as needed
4. Cover the affected area with a clean dressing
5. Arrange for further medical assistance as needed

First-Aid (Do not's)

1. Do not touch or attempt to move person without shutting off power supply
2. Do not move person away from spot without making arrangements for non-conductive material to help do this
3. While attending to person do not touch any non-insulated wire

Key considerations

(E) Fractures

Symptoms

1. Check for pain at or near site of injury (which increases with movement)
2. Check gently if movement is possible (if there is a fracture, movement will be difficult, not possible or painful)
3. Check for swelling around injured part, where later there may be bruising or discoloration
4. Check for deformity at site of fracture
5. Check if injured person is in a state of shock

First-Aid (Do's)

1. If there is bleeding, control bleeding before immobilizing site of fracture
2. Immobilize site of fracture
3. Check if injured person is in a state of shock
4. Revive the injured person using 5 step Action Plan
5. Place ice-pack on affected area to reduce pain and swelling
6. Provide proper padding to affected area before shifting to hospital etc

Key considerations

(E) (Continued) Fractures

First-Aid (Do not's)

1. Do not move the injured person without support
2. Do not ask injured person to move independently
3. Do not move joints above or below the site of fracture
4. Do not massage the affected area
5. Do not force bones back into the wound

Remember the principles of RICE

1. REST- Give rest to injured person and injured part
2. ICE- Apply ice on injured part
3. COMPRESS - Wrap the injured area with crepe bandage
4. ELEVATE - Elevate injured area above level of heart

Key considerations

(F) Poisoning

Types of poisoning

(1) Ingested poisons (orally)

(2) Inhaled poisons (through lungs by inhaling industrial gases, flames from fire, chemical vapors etc)

(3) Absorbed poisons (through skin via contact with poisonous sprays)

Signs and symptoms

1. Bluish lips
2. Difficulty in breathing, chest pain
3. Cough
4. Abdominal pain, loose motions
5. Dizziness
6. Double vision
7. Confusion
8. Fever

Key considerations

(F) (Continued) Poisoning

First-Aid (Do's)

1. Check airway, breathing and circulation, proceed with 5-step Action Plan
2. Check for foreign matter in mouth, if found remove immediately
3. Prevent injured person from entering a state of shock
4. Dilute poison by giving milk or water
5. Observer color and amount of vomit
6. Monitor vital signs
7. Arrange for immediate medical assistance

First-Aid (Do not's)

1. Do not induce vomiting unless type of poisoning known
2. Do not panic

Key considerations

First-Aid Kit

(A) Medicinal items

1. Antiseptics, disinfectants
2. Antihistamine cream
3. Tube of petroleum jelly
4. Analgesics, Pain relievers
5. Paracetamol
6. Antacid
7. Life saving drugs, Oral Rehydration solution (ORS) packets
8. Anti-diarrhoea medication
9. Laxatives

(B) Bandages

1. Sterile dressing, cotton wool, adhesives,
2. Triangular bandages, band-aids
3. Crepe bandages
4. Make-shift stretchers, crutches, splints

Key considerations

(Continued) First-Aid Kit

(C) Other items

1. Thermometer
2. Sterilized gloves, Latex gloves
3. Towels, napkins
4. Assorted sizes of safety pins
5. Tweezers, needles, syringes, trays
6. Anti-germicidal soaps, cleansing soaps
7. Scissors
8. Torches
9. Disposable bags, garbage bags

Key considerations for Mobile Healthcare Units (MHU) (Basic Edition)

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Gap Analysis for a MHU

- 1. Are emergency care services and disaster specific services guided by documented policies and procedures, and are they in consonance with statutory requirements? Yes/No/Partially
- 2. Does this also address handling of medico-legal cases? Yes/No/Partially
- 3. Do afflicted people receive care in consonance with policies? Yes/No/Partially
- 4. Do documented policies and procedures guide the triage of patient's condition for initiation of appropriate care? Yes/No/Partially
- 5. Are the MHU staff familiar with the policies and are they trained on the procedures for care of emergency case patients or disaster specific patients? Yes/No/Partially
- 6. Is there adequate access and space for the MHU to operate? Yes/No/Partially
- 7. Does the MHU adhere to statutory requirements? Yes/No/Partially

Gap Analysis for a MHU

- 8. Is the MHU appropriately equipped? Yes/No/Partially
- 9. Is the MHU manned by trained personnel? Yes/No/Partially
- 10. Is the MHU checked on a daily basis? Yes/No/Partially
- 11. Are the equipment on board checked on a daily basis using a checklist? Yes/No/Partially
- 12. Are emergency medications and disaster specific formularies of medications checked daily and prior to dispatch using a checklist? Yes/No/Partially
- 13. Does the MHU have a proper communication system? Yes/No/Partially
- 14. (If relevant) Do documented policies and procedures guide the uniform use of cardio-pulmonary resuscitation or minor surgical procedures? Yes/No/Partially

Gap Analysis for a MHU

- 15. Are MHU staff providing direct patient care trained and periodically updated in cardio-pulmonary resuscitation or minor surgical procedures? Yes/No/Partially
- 16. Do documented policies and procedures guide all activities of the nursing services? Yes/No/Partially
- 17. Do these documented policies and procedures reflect current standards, practices, regulations and purposes of nursing services? Yes/No/Partially
- 18. Do only qualified personnel order, plan, perform and assist in performing procedures? Yes/No/Partially
- 19. Do documented procedures exist to prevent adverse events like wrong patient, wrong side and wrong procedure? Yes/No/Partially
- 20. Is informed consent taken by personnel performing the procedure, where appropriate? Yes/No/Partially

Gap Analysis for a MHU

- 21. Is there adherence to standard precautions and adherence to asepsis during the conduct of the procedure? Yes/No/Partially
- 22. Are patients appropriately monitored during and after the procedure? Yes/No/Partially
- 23. Are procedures documented accurately in the patient record? Yes/No/Partially
- 24. Do documented policies and procedures define rational use of blood and blood products? Yes/No/Partially
- 25. Do documented procedures govern the use of IV, and transfusion of blood and blood products? Yes/No/Partially
- 26. Are transfusion procedures governed by applicable laws and regulations? Yes/No/Partially

Gap Analysis for a MHU

- 27. Is informed consent taken for donation and transfusion of blood and blood products? Yes/No/Partially
- 28. Does informed consent also include patient and family education about the donation and plan of care? Yes/No/Partially
- 29. Does the organization define the process for availability and use of IV, or transfusion of blood/blood components in emergency cases? Yes/No/Partially
- 30. Is a post transfusion form collected, and reactions if any identified and analyzed for corrective and preventive actions? Yes/No/Partially
- 31. Are the staff trained to implement the policies? Yes/No/Partially
- 32. Do more well-defined documented policies and procedures guide the care of people via high dependency MHU units? Yes/No/Partially

Gap Analysis for a MHU

- 33. Is there a documented admission procedure to a nearest healthcare provider and need for treatment criteria in high dependency MHU units? Yes/No/Partially

- 34. Are staff trained to apply these criteria for the care of patients in the high dependency MHU units? Yes/No/Partially

Minimizing the environmental footprint

As quoted in an article on pharmaceuticals and sustainability
In disaster management scenarios, another important factor is to reduce the environmental footprint of healthcare. The hazardous environmental footprint that could occur is mainly due to the following:

1. Improper prescription of antibiotics

2. Over-prescribing and inappropriate prescribing of medicines

3. No guideline recommended or followed to dispose leftover drugs

4. Inappropriate handling of bio-medical waste

All this adds to human morbidity and mortality due to drug abuse and poisonings from diverted drugs, spurious generic drugs, leftover drugs.

Planning norms and guidelines for the functioning of health camps, screening camps. mobile healthcare units can protect ecological and human health and safety.

Public Rights and Education Progammes (Basic Edition)

By,
K.S.Venkatram
AOEC & SSHGIEC, 2016

Public Rights and Education

What does a disaster management committee have to plan for in post disasters or emergency situations?

Depending upon the disaster or emergency situations, a disaster management committee will need to plan for different (social responsibility based) norms and guidelines to be followed to protect public rights and also to educate the afflicted on how to live post impact.

The need for public rights and education programmes are more relevant when it comes to disasters like an earthquake, flood, famine, drought, gas leaks, nuclear radiations or forewarned disasters like the outbreak of an epidemic, spreading of a harmful disease etc.

Public Rights and Education

- 1. Does the disaster management committee protect public rights and also counsel or educate the afflicted about how to live post impact or for any mitigation of ensuing threats? Yes/No/Partially

- 2. Are afflicted families informed of their rights and responsibilities in a format and language that they can understand? Yes/No/Partially

- 3. Are violations of public rights and education recorded, reviewed and corrective / preventive measures taken? Yes/No/Partially

- 4. (As relevant) Do public rights and education include respecting of any special preferences, spiritual and cultural needs? Yes/No/Partially

- 5. (As relevant) Do public rights and education include respect for personal dignity and privacy during mitigation, recovery and rehabilitation? Yes/No/Partially

Public Rights and Education

- 6. (As relevant) Do public rights and education include protection from physical abuse or neglect? Yes/No/Partially

- 7. Do public rights and education include right to complain and providing of information on how to voice a complaint? Yes/No/Partially

- 8. (As relevant) Does the committee explain to the afflicted families proposed mitigation, recovery and rehabilitation, including the risks, alternatives and benefits? Yes/No/Partially

- 9. (As relevant) Does the committee explain to the afflicted families the expected results for the proposed mitigation, recovery and rehabilitation? Yes/No/Partially

- 10. (As relevant) Do afflicted families members have a right to information on expected costs for mitigation, recovery and rehabilitation? Yes/No/Partially

Public Rights and Education

- 11. (As relevant) Does the committee explain to the afflicted families the possible complications for the proposed mitigation, recovery and rehabilitation? Yes/No/Partially

- 12. (As relevant) Are afflicted families counseled to make informed decisions and are they involved in the mitigation, recovery and rehabilitation planning and delivery process? Yes/No/Partially

- 13. (As relevant) Do afflicted families have a right to information and education about their healthcare needs due to exposure during the disaster or due to living in proximity with the disaster site? Yes/No/Partially

- 14. (As relevant) Are afflicted families educated about any likely disease process, complications and prevention strategies? Yes/No/Partially

- 15. (As relevant) Are afflicted families educated about due precautions to be followed to prevent disease or epidemics outbreaks? Yes/No/Partially

Public Rights and Education

- 16. (As relevant) Is the afflicted family educated about diet and nutrition? Yes/No/Partially

- 17. (As relevant) Is the afflicted family educated about immunisations? Yes/No/Partially

18. (As relevant) Does the committee have a documented complaint redressal procedure? Yes/No/Partially

19. Are afflicted families made aware of how to lodge complaints? Yes/No/Partially

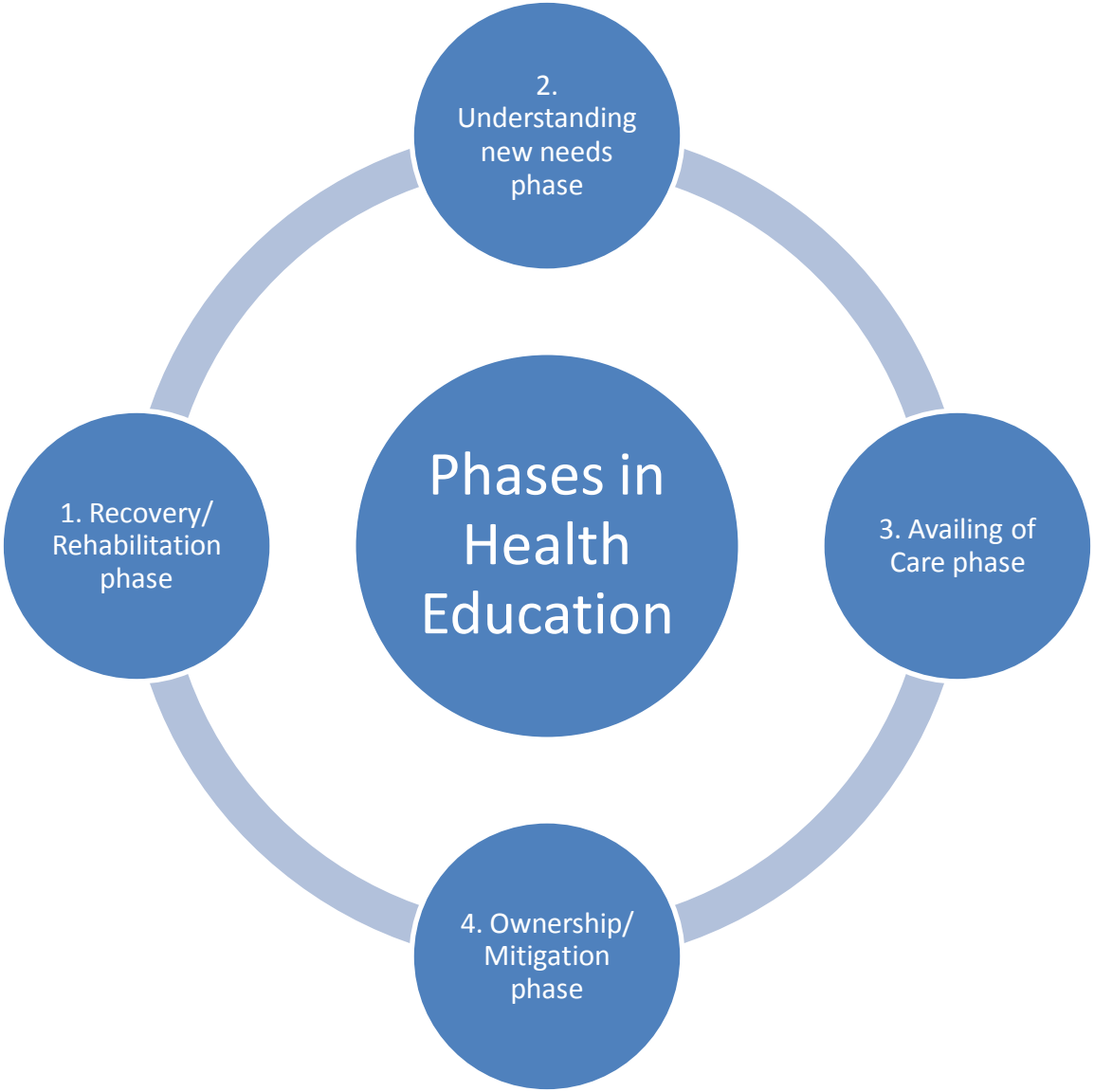
20. Are all complaints analyzed by the committee? Yes/No/Partially

21. Is corrective and/or preventive action taken on the basis of the analysis of complaints, where appropriate? Yes/No/Partially

Key considerations in a Health education plan

By,
K.S.Venkatram
AOEC & SSHGIEC, 2014

Key considerations



Key considerations

After a disaster, or during a disaster, people are known to come up with different kinds of needs. Some of these being:

1. Need for immediate healthcare in different extents

2. Need for regular screening, or follow ups to help restore life back to normalcy

3. Need for food, immunizations, medicines, clothing, and provisional accommodation or shelter

4. Need to follow strategies to live without adequate sanitation arrangements and also prevent outbreaks of epidemics or diseases

5. Need to help re-construct sanitation systems as quickly as possible to prevent spread of diseases or occurrence of outbreaks

6. Need to conduct themselves in harmony and with flexibility

Key considerations

To do all this (depending upon the gravity of the disaster and the disaster category), a community will need access to a health education plan. The plan will generally need to:

1. Diffuse the situation and any threats to health with well-rehearsed thinking

2. Save, or help save as many lives, or prevent incidences and outbreaks as far as possible

3. Manage all afflicted people at locations close to the disaster or at relief camps via assistance from mobile healthcare units and patient education programmes

4. Establish the identities of persons affected, their need for treatment or consultation to get back to normalcy

5. Provide best possible care to all the afflicted people via health camps, mobile healthcare units or admission to nearby healthcare providers

Key considerations

6. Minimize the hazards due to unhealthy situations where infection can spread, and also address the need to start from scratch or depend upon limited resources to live from day to day

7. Use a disaster management committee to organize resources / facilities required or make alternate arrangements with maximum efficiency so there is no oversight or negligence

To achieve this, AOEC finds that a concept called Showcased Relief can help communities identify, learn from and implement measures needed in the recovery or rehabilitation phase of any disaster.

The next section looks at key aspects for Showcased Relief under headings of Health, Growth and Immunity, where all three aspects are important for a community experiencing or surviving a disaster.

Showcased Relief for HGI Improvement (Basic Edition)

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Showcased Relief for Health

- **Some of the connected issues affecting health of afflicted people are**
- 1. They need to cope with a long-term condition where there has been a possible damage to the heart or brain or limb

- 2. They need to be helped to conquer fears that they may not outgrow in this long-term condition

- 3. They need to undergo immunisations, vaccinations or regular screening to deal with spread of diseases or epidemics

- 4. They need to deal with pain or develop an interpretation that helps them understand recovery

- 5. They need to be instilled with a power of reasoning to help them understand which defense mechanisms need to be built up

- They need to be provided with suitable training and counseling to restore self-sufficiency

Showcased Relief for Health

- 6. They need to be helped in overcoming addictions/ special likes/ fears in not wanting to eat what may be right for one at this stage. Added to this, they need to be made to understand that one may need to drink right quantities of fluids/and other preparations as recommended by the doctors

- 7. They need to understand ways to cope with stress and condition themselves to improve recovery

- 8. They need to deal with negative emotions and let go of any painful memories, as negative emotions affect health and longevity

- 9. There is a need to prevent adverse medication errors : As medication errors are more common in mass health management scenarios i.e. the doctors or staff in health camps, relief camps, or MHUs should follow guidelines to ensure that errors do not occur when procuring the drug, prescribing it, dispensing it, administering it (as relevant), and monitoring its impact

Showcased Relief for Growth

- **Some of the connected issues affecting growth of afflicted children are**
- 1. They need to be provided well-balanced nutrition
- 2. They need to be given vitamin supplements for a short period (as relevant)
- 3. They need to be provided clean drinking water (free of germs and contamination)
- 4. They need to observe guided personal hygiene
- 5. They need to be vaccinated or immunized for better chances of survival
- 6. They need to be taught to keep the environment around them clean
- 7. They need to be involved with some activity that makes them laugh everyday or makes them feel love/attachment to help battle trauma, stress, and illness

Showcased Relief for Immunity

- **Some of the connected issues affecting immunity of afflicted people are**
- 1. They need to be protected from wrong or inappropriate dosages of antibiotics

- 2. They need to be told that scrubbing ones hands thoroughly before cooking, or eating, or before touching articles while cooking is important as this can affect ones health if not done

- They need to be told to hydrate themselves to purge poisons. They could be guided on how the regular use of garlic, tomatoes, ginger, spices like cinnamon, clove, turmeric etc and porridge oats in cooking can improve longevity

- 3. They need to guided on how to minimize use of contaminated or hardened water for cooking

- 4. They need to guided on how oral hygiene is important even under afflicted conditions (this is most important for children)

- 5. They need to taught how to keep their environment clean and free from contamination as this can otherwise lead to diseases

Part 3 (TOC)

Responsibility of Management

By,
K.S.Venkatram
AOEC & SSHGIEC, 2016

Responsibility of Management

- 1. Do those responsible for management support safety initiatives and quality improvement plans?
- 2. Do those responsible for management address the organization's social responsibility?
- 3. Does the organization document its service standards?
- 4. Does the organization have a formal documented agreement for all outsourced services?
- 5. Does the organization monitor the quality of its outsourced services?
- 6. Does the organization ensure appropriate proactive risk management across its services?

Responsibility of Management

- 7. Does the management implement systems for internal and external reporting of system and process failures?
- 8. Does the management ensure appropriate corrective and preventive actions are taken to address safety related incidents?
- 9. Does the management monitor and audit its Quality Management System periodically?
- 10. Does the management have a vision for continually excellent services?
- To connect further into how an organization can work towards continual excellence and self-sustenance, you can ask for AOEC's Handbooks/Guides/Case studies to understand how you can improve your business model today. You can send your request to ksvenkatram@yahoo.co.in or venkataoec@gmail.com or call 09342867666.

Gap Analysis for Disaster Management vision

By,
K.S.Venkatram
AOEC & SSHGIEC, 2016

Gap Analysis for DM vision

- **Details to help understand the interest:**
- The Go Green plan has been a mission for many years. We could help the network community step further. The next few pages describe how this can be done.

- Today, India as a country is affected by many natural disasters like floods, earthquakes, failures in ecosystems etc.
-
- There are successful programmes that help conservation. The question that AOEC would like to raise here is that, do we autonomously deliver life support, to help people help themselves when the country, its states or nearest neighbouring countries are affected by a natural disaster.

Gap Analysis for DM vision

- **What is the background?**
- We are familiar with the terms networks and grids, AOEC introduces a new term "Life Support Grids". Today grids (a special network of computers) are known to help organizations host or use IT resources in fail-safe and share-usage modes.
-
- If we have been doing this for IT resources to ensure operations uptime, then it is important for organizations to understand the impact of what is commonly experienced i.e. lack of life support around us.
-
- The question being asked is "What can we do to make sure that life around us can avail of fail-safe services and life support management at times of disasters like floods, earthquakes, fires, etc?"
-
- We are not talking about implementing networks that are accessible, available, controllable, or reliable but we are talking about a next step. The point being, can we design support into our networks, so the new lifecycle provides for different life support services. To understand more about this, we look at some value additions….
-
- *The crux of a life support network (called as a milling network) is to drive organizations to universally help life.*

Gap Analysis for DM vision

Life Support Grids and planning services

- The interest is to get people who use networks to invest in services (milling services) that act as contributors to a life support network.
-
- Organizations interested in life support would need to implement a program called “the Life Support Service Program”, to enable communities, customers, or companies investing in their products or services to finance life support via multiple options. There are different entities that need to be planned for or implemented for this program.

- There are many leading technology providers, healthcare is a common aspect connecting people. It is expected that an organization’s decision to use its technology for life support could change the way investors relate to what is available today as options in selecting organizational networks and services.

- Many organizations are delivering for the human aspect of networks, with AOEC’s Go Green plan, your organization could also announce its leading interest to make its services and network “Green Lifecycle Card based, human and eco-focused”.

Gap Analysis for DM vision

- **Some questions**
- What could influence this proposal? All this depends upon what your organization or community would like to invest in or implement as technology for unified enterprise services.

- Due to the need to keep this section brief, and in synch with the assessments, you are told to refer to the article on “Life Support Grids” (in the complete edition CD) for more details.

Gap Analysis for Facility or Building Management and Safety

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Gap Analysis for Facility Management and Safety

1. Does a safety committee coordinate development, implementation and monitoring of a safety plan and policies? Yes/No/Partially

2. Are safety devices installed across the facility or building and are they inspected periodically? Yes/No/Partially

3. Does the facility or building have non-smoking zones? Yes/No/Partially

4. Are facility inspection rounds to ensure safety, conducted at least twice in a year for frequently used areas and at least once a year for infrequently used areas? Yes/No/Partially

5. Are inspection reports documented and are corrective and preventive measures undertaken? Yes/No/Partially

Gap Analysis for Facility Management and Safety

6. Is there a safety education programme for staff? Yes/No/Partially

7. Are facilities appropriate to the scope of services of the facility or building? Yes/No/Partially

8. Does the facility or building operate to ensure safety of people, children, aged, infirm, staff, customers and visitors? Yes/No/Partially

- Are up-to-date drawings maintained to support details of site layout, floor plans and fire-escape routes? Yes/No/Partially

9. Are internal and external sign postings largely understood by the staff, consultants, patients, customers and visitors? Yes/No/Partially

10. Is potable water and electricity available around the clock? Yes/No/Partially

Gap Analysis for Facility Management and Safety

11. Are alternate sources of electricity and potable water provided as a backup for any failure/shortage? Is there a plan for water management? Yes/No/Partially

12. Does the management committee regularly test these alternate sources? Yes/No/Partially

13. Is the provision of space in accordance with the available literature on good practices (Indian and international standards) and directed by government agencies? Yes/No/Partially

14. Are there designated individuals responsible for the maintenance of all facilities? Yes/No/Partially

15. Is there a documented operational and maintenance plan (inclusive of preventive and breakdown planning)? Yes/No/Partially

16. Are maintenance staff contactable around the clock for emergency repairs? Yes/No/Partially

Gap Analysis for Facility Management and Safety

17. Are response times monitored right from reporting to inspection and thereon implementation of corrective actions? Yes/No/Partially

18. Does the management committee plan for equipment in accordance with its services and strategic plan? Yes/No/Partially

19. Are equipments selected, purchased / rented, updated or upgraded by a collaboration process? Yes/No/Partially

20. Are equipments inventoried and proper logs maintained as required? Yes/No/Partially

21. Do qualified and trained personnel operate and maintain equipment and utility systems? Yes/No/Partially

22. Is there a documented operational, house-keeping and maintenance (incidental, preventive and corrective) plan? Yes/No/Partially

Gap Analysis for Facility Management and Safety

23. Is there a maintenance plan for water management? Yes/No/Partially

24. Is there a maintenance plan for electrical systems? Yes/No/Partially

25. Is there a maintenance plan for heating, ventilation and air-conditioning? Yes/No/Partially

26. Is there a documented procedure for equipment replacement and disposal? Yes/No/Partially

27. Do qualified and trained personnel operate and maintain the equipment? Yes/No/Partially

28. Are the equipment periodically inspected and calibrated for their proper functioning? Yes/No/Partially

Gap Analysis for Facility Management and Safety

29. Do documented procedures govern procurement, handling, storage, distribution, usage and replenishment of chemicals/corrosive liquids/explosive gases? Yes/No/Partially

30. Are chemicals/corrosive liquids/explosive gases handled, stored, distributed and used in a safe manner? Yes/No/Partially

31. Do procedures for chemicals/corrosive liquids/explosive gases address the safety issues at all levels? Yes/No/Partially

32. Are there alternate sources for chemicals/corrosive liquids/explosive gases in case of issues or hazards? Yes/No/Partially

33. Does the management committee regularly test these alternate sources? Yes/No/Partially

34. Is there an operational and maintenance plan for any piped gas/corrosive liquid flow, and compressed air installation? Yes/No/Partially

Gap Analysis for Facility Management and Safety

35. Does the management committee have plans and provisions for early detection, abatement and containment of fire, and non-fire emergencies (disasters) within the facilities? Yes/No/Partially

36. Does the facility or building have a documented safe-exit plan in case of fire and non-fire emergencies? Yes/No/Partially

37. Are the staff trained for life saving roles in case of such emergencies? Yes/No/Partially

38. Are mock drills held at least twice a year? Yes/No/Partially

39. Is there a maintenance plan for fire-management related equipment? Yes/No/Partially

40. Does the management committee identify potential emergencies on a periodic basis? Yes/No/Partially

Gap Analysis for Facility Management and Safety

41. Does the management committee have a documented disaster management plan? Yes/No/Partially

42. Are provisions made for the availability of (first aid specific) medical supplies, equipment and materials during such emergencies? Yes/No/Partially

43. Are the staff/teams trained for disaster management roles in case of such emergencies? Yes/No/Partially

44. Is the disaster management plan tested at least twice a year? Yes/No/Partially

45. Does the management committee have plans for handling community emergencies, epidemics and other disasters? Yes/No/Partially

46. Are hazardous materials identified within the facility or building? Yes/No/Partially

Gap Analysis for Facility Management and Safety

47. Do documented procedures govern identification of house-keeping chemicals, other hazardous materials, discarding, handling, tagging, collection for temporary storage, and safe disposal? Yes/No/Partially

Gap Analysis for IT Service Continuity (Basic Edition)

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Gap Analysis for IT Service Continuity

As organizations, institutions, facilities, crucial buildings are becoming increasingly dependent upon IT services, it is important to plan for business service continuity and IT service continuity.

This does mean carrying out of risk analysis and identification of risk mitigation measures to ensure an organization can overcome situations like disasters or failures of its facilities, systems and equipment.

If an organization has processes for Business Service Continuity and IT Service Continuity, then it can

a. Manage recovery of its systems after a disaster
b. Reduce loss of service availability time and offer better continuity in services after a disaster
c. Minimize interruption to business activities

Gap Analysis for IT Service Continuity

What do processes for Business Service Continuity and IT Service Continuity include?

1. They assess the risk and resulting impact of disruption of services (systems & equipment) following a disaster
2. They identify services (inclusive of systems and equipment) vital to the business earlier on and adopt well-thought of preventive/alternative measures for these elements
3. They define periods within which vital services, systems and equipment should be restored after a disaster
4. They take measures to prevent, detect, prepare for and mitigate the effects of disasters and/or to reduce their impact
5. They define a well-thought of approach to restore vital services, systems and equipment when needed
6. They develop, test and regularly maintain a recovery plan with sufficient detail to help survive a disaster where it is possible to restore services to normal after a certain period
7. They help install reliable systems and equipment with sufficient planning for reliable facility management, redundancy with prior arrangement for backup systems and equipment (where possible)

Gap Analysis for IT Service Continuity

What does a plan for Business Service Continuity and IT Service Continuity depend upon?

1. Service Level Management or obligation of organization to provide a certain level of services at all times
2. Availability Management for its facilities, systems and equipment by designing and implementing preventive measures to ensure more service availability time
3. Configuration Management that identifies the specifications and configurations of systems, and equipment accurately so as to help replace them after a disaster
4. Capacity Management that helps the organization use its facilities in an efficient manner or to the fullest, by ensuring periodic facility planning with regular facility management where it is possible to switch to recovery mode when needed
5. Change Management that helps audit, identify and track changes to the specifications and configurations of processes, systems and equipment at all times, so the same can be restored as quickly as possible when needed
6. Periodic self-assessment of these areas to ensure the organization understands issues, gaps and lacunae as early as possible

Service Evaluation and Review Technique (SERT) for self-sustaining services

By,

K.S.Venkatram

AOEC & SSHGIEC, 2016

Service Evaluation and Review Technique

Why is SERT an important facet in an organization or community?

Apart from planning, organizing, staffing, and controlling for operations effectiveness, directing people is important as it helps an organization or community initiate and guide action towards desired business and quality objectives.

The factors that determine successful directing of people are

1. Communication methodology
2. Leadership and Delegation
3. In-house training
4. Motivation
5. Decisions Support (AOEC's strategy)

Your organization's "Service Model and Organizational Behavior Model (OBM)" decides the overall effectiveness and efficiency with which people work together to deliver for the various Critical-to-Quality characteristics, goals and objectives.

Service Evaluation and Review Technique

Does your Service Model account for the following?

1. Acceptability of services (according to Accreditation levels)

2. Acceptability of services (according to other Quality assurance levels)

3. Contingency planning (for agility needed in emergencies, disasters and other unseen needs)

4. Successful directing of people/safe practices adherence/organizational culture (to manage cost of quality costs and also meet continual quality improvement objectives)

Service Evaluation and Review Technique

Does your Organizational Behavior Model account for the following?

People in an organization respond / act on the basis of a hierarchy of needs

1. Physiological needs – need for food, clothing, shelter etc
2. Security and social needs – need to earn for sustenance, and need for reassurance that there is no fear of loss of job, property and shelter
3. Social affiliation or acceptance needs – a need to belong, a need to be accepted by others
4. Self-esteem needs – need for power, prestige, status, self-confidence
5. Self-actualization needs – need to maximize one's potential, self-expression

It needs to be pointed out that as people advance in an organization their physiological and security needs reduce but their affiliation, esteem and actualization needs increase.

Service Evaluation and Review Technique

Does your Organizational Behavior Model take into consideration the following behavioral sciences and their specific focus?

1. **Psychology** where the focus is on

+ Learning/Competence
+ Motivation
+ Recognition of personality
+ Perception and apparent reasoning/beliefs
+ Need for training or interest in training
+ Leadership effectiveness
+ Job satisfaction or role satisfaction
+ Capability for individual decision-making
+ Inspiration to perform / get appraised for performance
+ Attitude measurement
+ Work stress etc

Service Evaluation and Review Technique

2. **Sociology** where the focus is on responses to

+ Formal organizational theory
+ Bureaucracy
+ Organizational technology
+ Organizational culture
+ Group dynamics or team work
+ Role of communication in the organization
+ Healthy use of position/power or need for more power/self-expression
+ Recognition of conflicts and conflicts management
+ Inter-group behavior or inter-personal relationships

Service Evaluation and Review Technique

3. **Social psychology** where the focus is on

+ Behavior change management
+ Attitude change management
+ Adept communication in all circumstances
+ Group process management / inter-department role play
+ Group decision-making

4. **Anthropology** that focuses on

+ Organizational culture and its effect in social diversity
+ Organizational environment and its influence on personnel
+ Recognition of comparative values, attitudes in personnel/customers
+ Understanding of behavior/beliefs through cross-culture analysis

Service Evaluation and Review Technique

What does your Organizational Behavior Model (OBM) influence?

In any organization the OBM and appropriate Personnel Management methodology influences the following:

1. SMART Service transformation specific response policy (or SSTSR policy)
2. Productivity
3. Absenteeism
4. Contributions to organizational goals
5. Job satisfaction

This influence can be observed at 4 levels:

1. Individual level
2. Group level
3. Organizational system level
4. Decisions Support level

The next few pages illustrate the influences at the 4 levels…

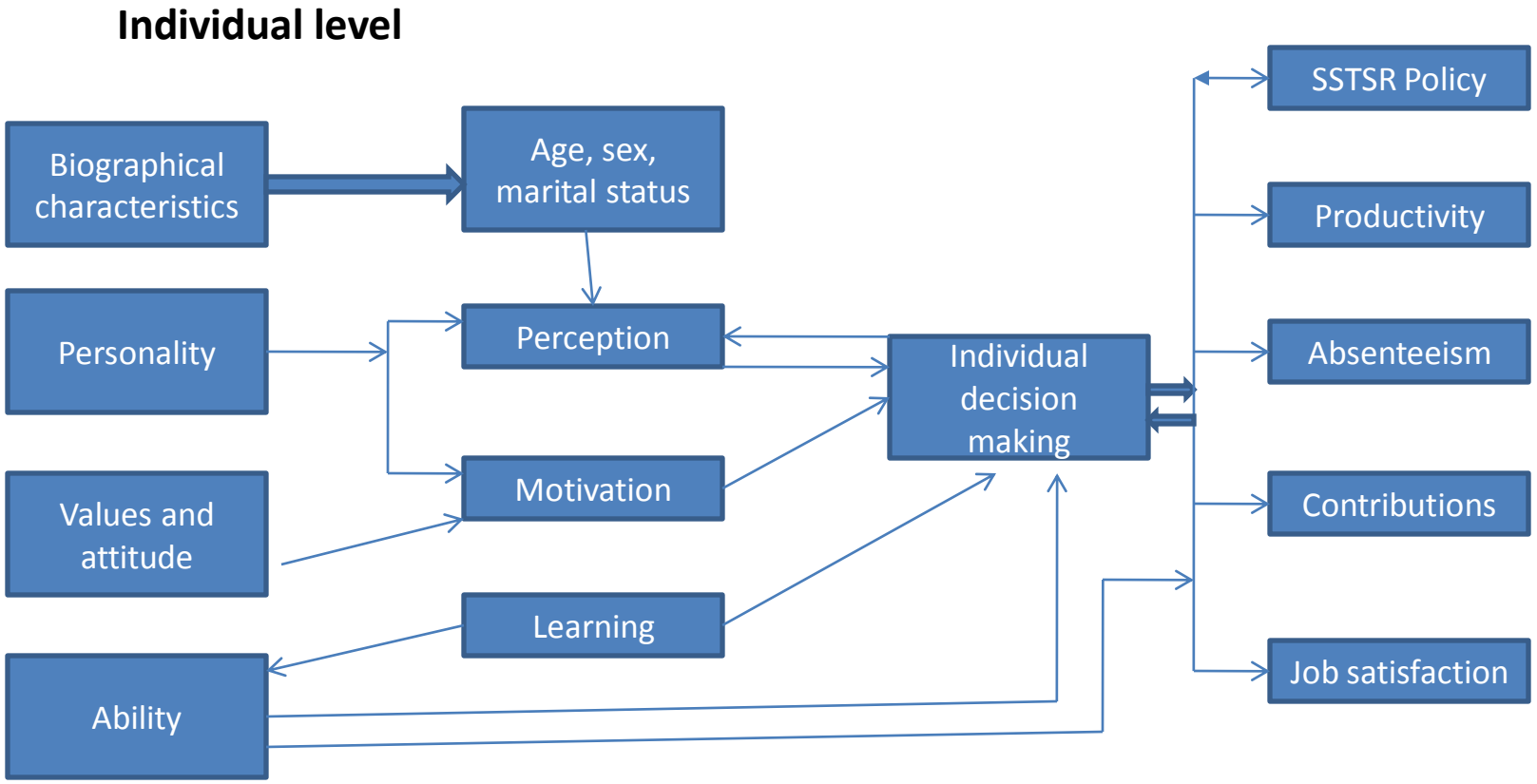
Service Evaluation and Review Technique

What is the SMART Service Transformation Specific Response (SSTSR) policy?
It is a policy that directs people/staff to review and respond to needs, issues or transformations in services, so safe practices are adhered to during day to day interactions, or after checkpoint evaluations.

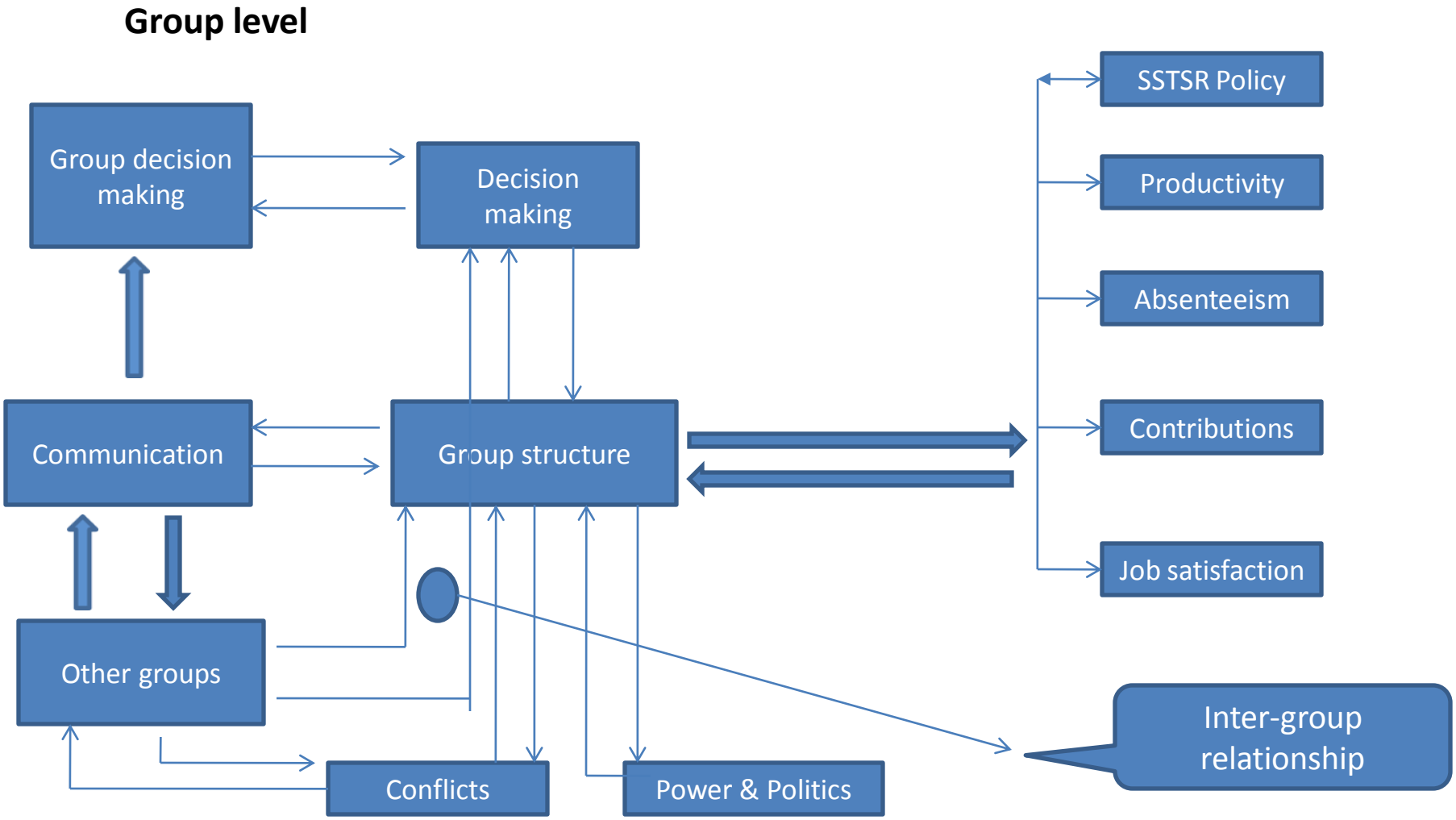
It involves the need to document/utilize new concept Incidence Mitigation and Adaptation Questionnaires (made up of Self-network profiles, Total Quality Management Questionnaires, Total Quality Management Surveys etc), SMART First Aid Fulfillment Worksheets and Peer Skills Questionnaires. The above policy and its new methodology documentation is a conceptualization by AOEC to complement your quality control framework and make your organization's service model autonomous* and SMART*.

AOEC's toolkit/handbooks/guides include certain ready to use information to get started in your journey to improve your ratings in facility management. Take the NEXT step ask for the facility management toolkit/handbook/guide.

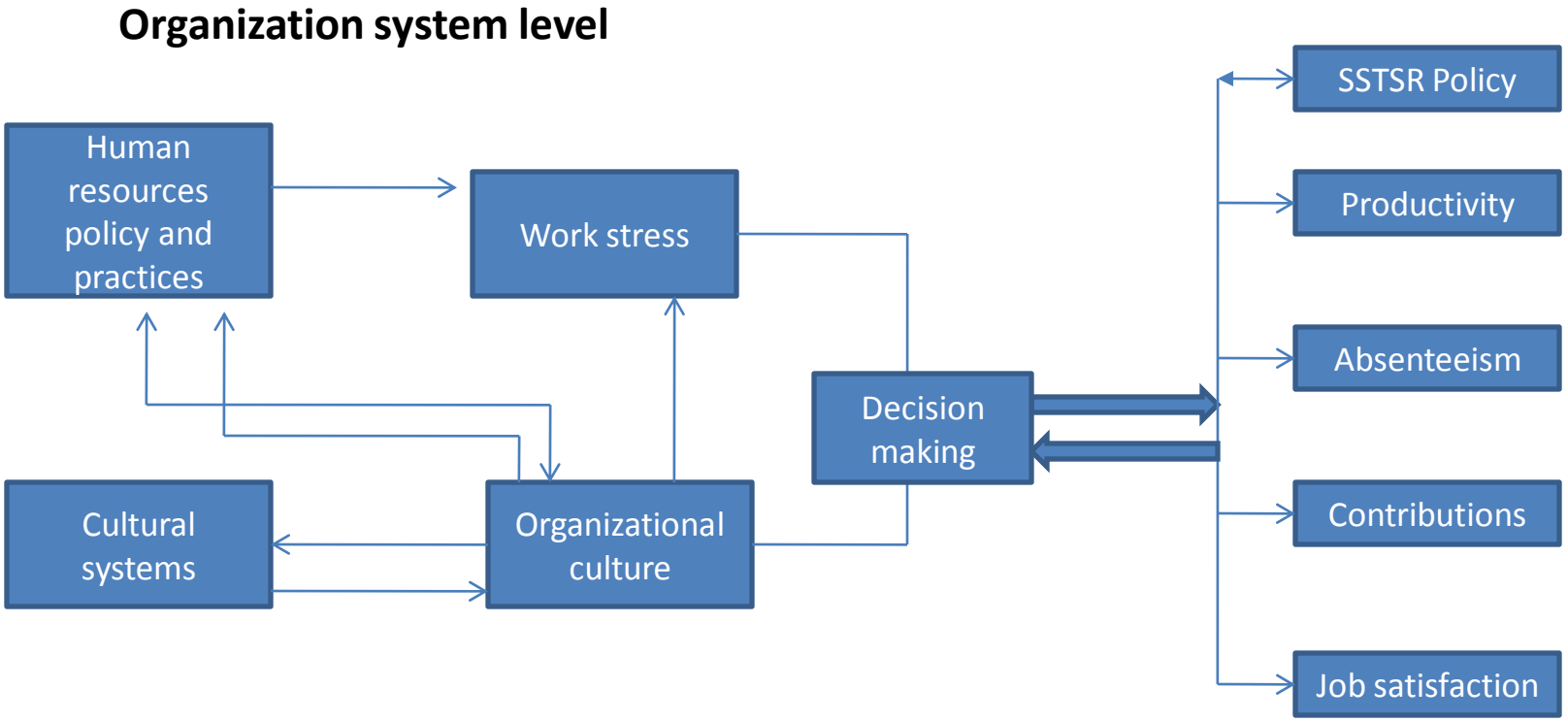
Service Evaluation and Review Technique



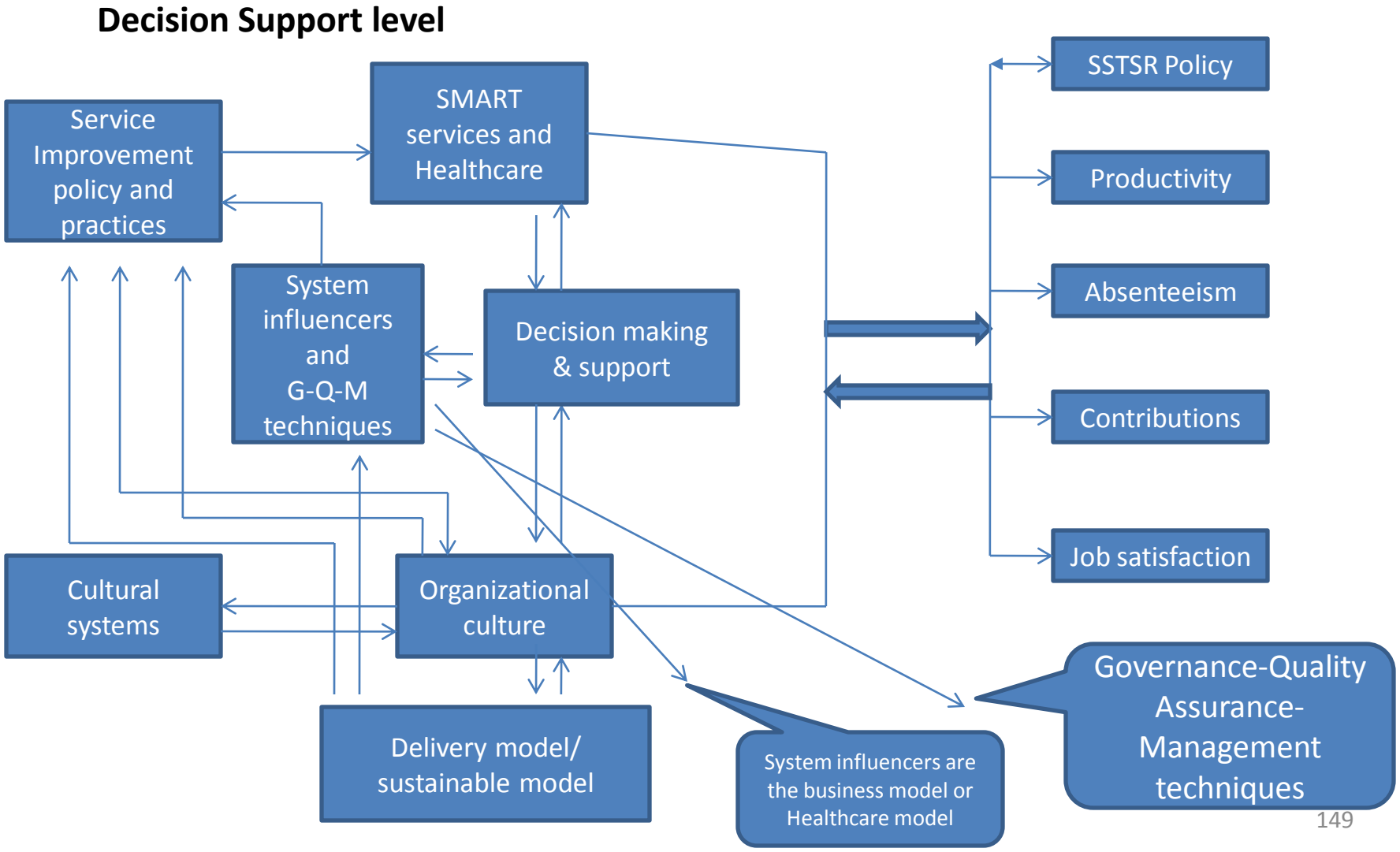
Service Evaluation and Review Technique



Service Evaluation and Review Technique



Service Evaluation and Review Technique



Service Evaluation and Review Technique

Given these considerations and factors, the 4 main areas that can help your organization manage its work requirements are:

1. Identifying & managing of **competence** of personnel
2. Improving of **awareness** of personnel
3. Implementing of satisfactory **training programs**
4. Implementing of SERT acceptability

The gap analysis done during the SERT assessment can identify what is important for your organization

1. Accreditation model specific areas
2. System influencer specific areas
3. Integrated sustainability quotient specific factors for facilities

Service Evaluation and Review Technique

What is SERT acceptability?

It is an indication of complete acceptability that your facility management model is sustainable and continually excellent. This understanding is achieved via a gap analysis to assess how your organization delivers the following:

1. Better availability with demonstration of unique value
2. Improved acceptability for quality and competence in techniques
3. Overall accountability in services
4. Qualified total cost of ownership or affordability

This gap analysis will include a series of questions or assessments based on documentation from high-performance buildings, ISO 14000 family of standards and other conceptualizations by AOEC to improve your ability to manage today's system influencers, and the need to understand and manage cause for change in facility management.

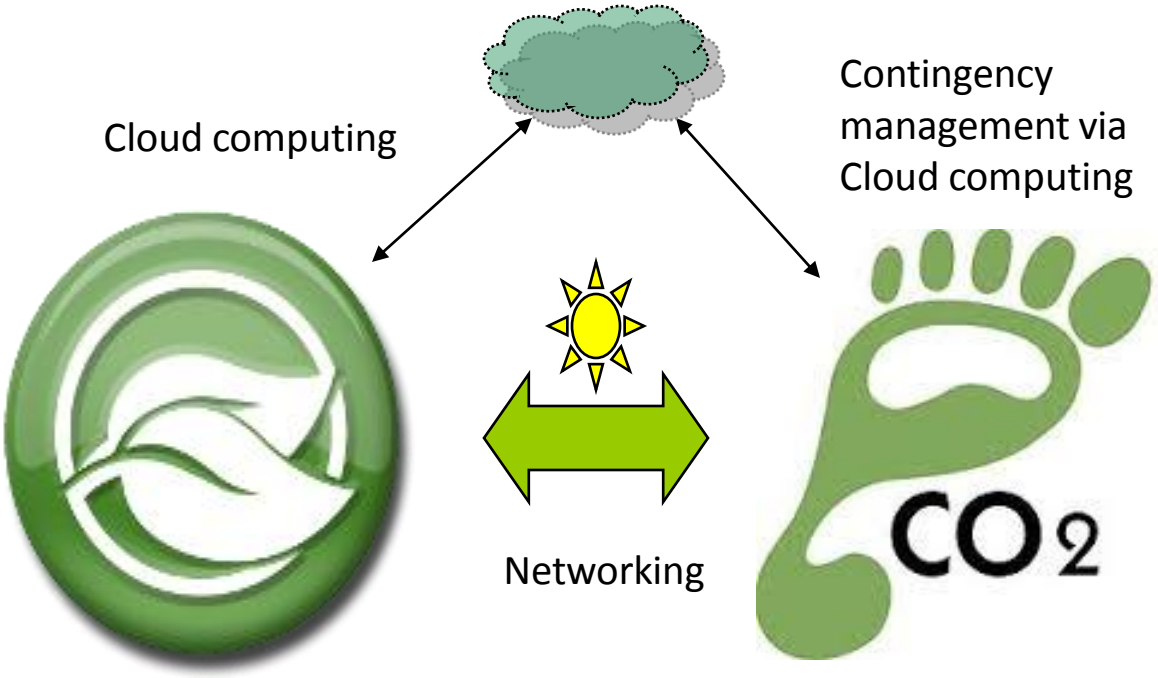
Service Evaluation and Review Technique

NEXT Steps

1. You could conduct a study to understand the issues faced while directing people or managing people or while planning readiness and mitigation
2. You could conduct a study to identify which factors (SSTSR policy, productivity, absenteeism, contributions, job satisfaction) and levels are most affected in the existing Organizational Behavior Model and Service Model
3. You could look at adopting some practices from the ISO 14000/ISO 9001:2008/ISO 9004:2009 for better readiness and mitigation
4. You could work on improving the current feedback and grievance redressal procedures to understand the issues affecting your organization
5. You could work on in-house counseling methodologies to further inspire and motivate personnel/staff and reduce conflicts that may affect your readiness and mitigation solution

Relief and Rehabilitation Centres

SMART Clouds



Green hosts
(SMART Cloud Hubs)

Green sites
(SMART Cloud Systems)

SMART Clouds

- Our ability to fight climate change, disasters and resource depletion will decide the tomorrow for everyone.

- In the connected world we have identities & accounts, and access privileges tied to these accounts, but we do not have what is called Green Identity Management, which can ensure that as people we are doing our part to fight climate change and other deterrents that are going to impact the future generations.

- This ideation proposes that we can integrate Green Identity focus into all the sites that operate to perform specific functions. This Green Identify can help us incorporate consciousness at sites where there are critical, clustered or autonomous institutional, business, lifecycle related and community services. This consciousness can help us demonstrate awareness, sensitization, and adherence to practices that achieve savings for green thinking and sustainable functioning.

- We have credibility ratings being assigned to our accounts or membership, but there is no concept of a self-organization indicator for core facility functions, climate change mitigation related savings and contingency planning at sites that can save the occupants, community, site cluster and environment.

SMART Clouds

- The need to incorporate Green Identity management for sites is seen due to the fact that current practices for green thinking are either policy based and/or with an ownership onus that makes people adhere to them.

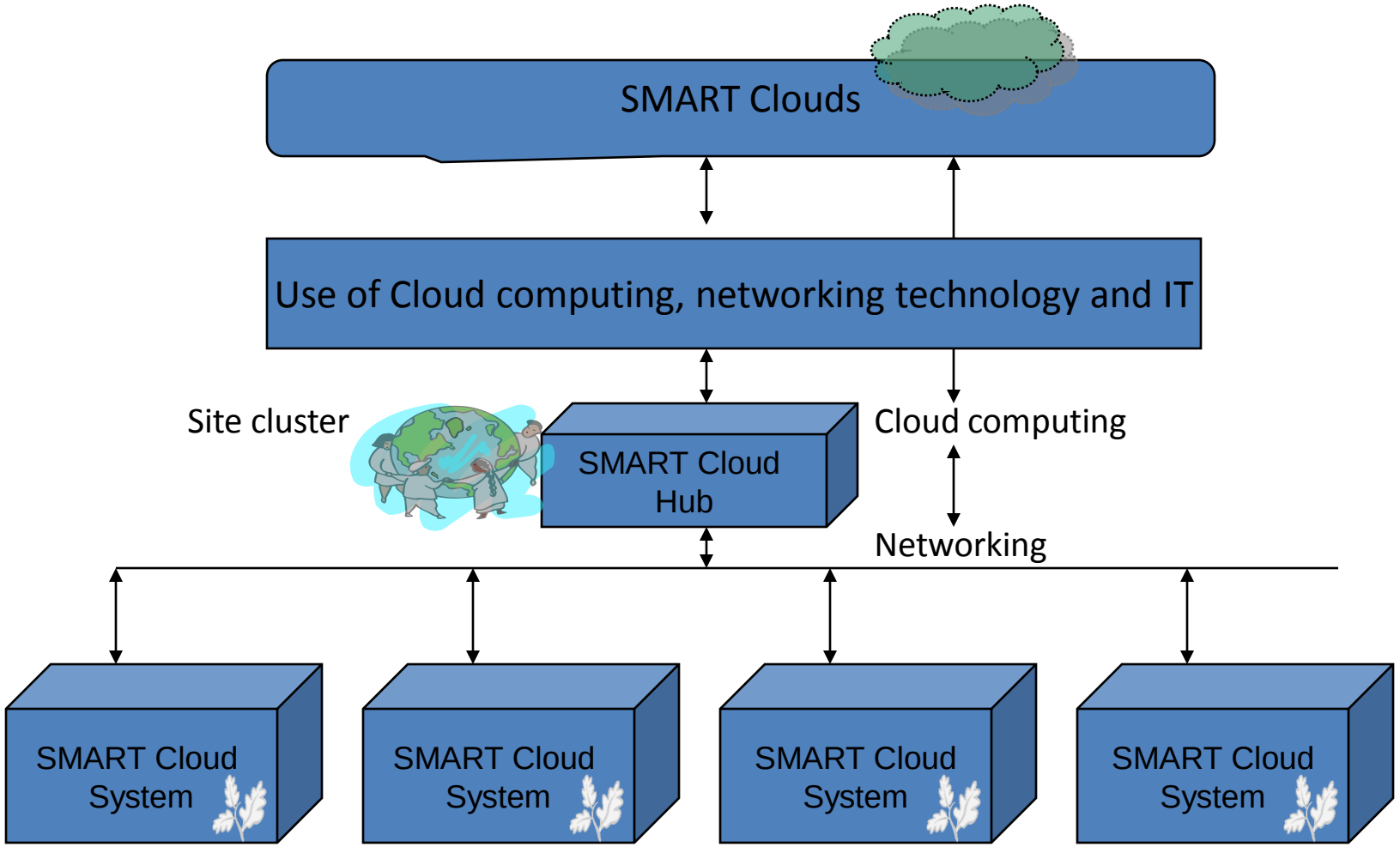
- We do not have a Green Lifecycle management theory called the Conscious Leaf theory that can ensure governing bodies, organizations, institutions and other businesses help sites fight climate change, lack of eco-friendly involvement and mitigate & manage disasters.

- The Conscious Leaf theory can ensure that a site demonstrates conformant and well-planned pro-activeness for Green Identity Criteria to manage cooperation, prioritization, decision-making and interventions for protecting their realm of ownership.

- The reason behind associating this theory with Relief and Rehabilitation Centres is that we need SMART frameworks that set and evaluate adherence for Green Identity Criteria that protects occupants, the community, the site cluster and the environment.

SMART Clouds

The Green Lifecycle Management theory can be developed using the following framework:



SMART Clouds

- **SMART Clouds and services:** The SMART Cloud ideation (based on Cloud computing) proposes that the governing bodies (for urban and semi-urban landscapes) should deploy Relief & Rehabilitation Centres that host a cloud that exclusively focuses on awareness, sensitization, and adherence to practices that achieve savings for green thinking and sustainable functioning and for contingency planning to mitigate disasters.

- **SMART Cloud Hubs:** This component of the SMART Cloud framework refers to Green hosts that act as Hubs for site clusters. These Hubs not only host specific documents online i.e. white papers, case studies, how-to or training material that helps sites in their cluster understand what is needed from them as "Green entities", or "Green identifies" but also maintains accounts that report self-organization indicators for these sites i.e. the SMART Cloud systems publish self-organization indicators that is communicated to the Hub and/or Relief & Rehabilitation Centre.

- **SMART Cloud systems:** After considering the concerns about implementing such systems, a site could function as a SMART Cloud System for a site cluster by registering with a Relief & Rehabilitation Centre and SMART Cloud Hub. This registration will transform a site into a Green Identity that shows awareness, sensitization and adherence to self-organizational practices that can reduce the site's carbon footprint, its impact to the environment, also fight climate change and achieve eco-friendly involvement, when it comes to its line of business, or service and vision for sustainable development.

SMART Clouds

- **Agile communication systems:** Depending upon the technological interests of the SMART Cloud framework, the ideation proposes the development of a Core Collaborator that uses Mimic based condition monitoring (when automated), or simple site information (for [Resource Utilization & Mitigation Counters specific] checkpoints in self-organization) (a) to communicate via emails, advanced messaging, SMSes, alerts, LiveUpdate services, tweets, etc that report any need to view Coverage section documentation, or (b) to send out geo-coded control commands requesting transformation of risk mitigation, or consumption and/or utilization patterns.

- **Depending upon the involvement needed to become a Conscious Leaf**
- The (SMART Cloud Hub) Green host will publish (BMAA+) account specific information for Site Ingenuity Experiences, where this information describes the Green Identity Criteria that a site must demonstrate in its self-organization. Demonstrating this criteria will make a site a Green entity or Conscious Leaf.

- The site in this role will also have access to a SMART Cloud and its various services, where this will help the site share access to a bulletin board that can be read from, written to, used as an enabler to help in self-organization.

SMART Clouds

- In this role as a Conscious Leaf, each site will need to demonstrate credibility via a self-organization indicator for the A-Z EACC Ingenuity Portfolio.

- The A-Z EACC Ingenuity Portfolio will include natural resources, man-made resources and ASSET resources. The focus will be on elements that can affect performance and sustainable built up environments, such as:
- 1. Common elements for systems
- 2. Common elements in any site
- 3. ASSET resources

Details about each category is available in a document titled “RUC Portfolio”.

Showcasing and (automated) Mimic based condition monitoring

Each site’s self-organization indicator will be based on the EACC Theory Profilometer, where all this will be packaged into a EACC showcase that helps in seeing a representation that indicates whether the site is a Green Asset or does it seem emergently green or complex as yet in its site management model.

SMART Clouds

- **A site that is a Green Asset**
- It indicates that the site demonstrates savings for green thinking and sustainable functioning and for contingency planning to mitigate disasters.

- **A site that is emergently green as yet in its site management model.**
- It indicates that the site is sensitized to the need to reduce the site's carbon footprint, its impact to the environment, also fight climate change and achieve eco-friendly involvement, when it comes to its line of business, or service and vision for sustainable development.

- The site does not yet demonstrate complete adherence or pro-activeness for Green Identity Criteria.

- **A site that is complex as yet in its site management model**.
- It indicates that the site's current practices for green thinking are either policy based and/or with an independent ownership onus that makes people adhere to them. It also indicates that the site is not self-organized for green thinking and sustainable functioning and for contingency planning to mitigate disasters.

SMART Clouds

- **SMART Clouds and its automation**

- The first version of the SMART Clouds framework can be implemented via the deployment of manually driven Desks that perform different tasks to support Green Identity Criteria.

- The manually driven Desks (at different levels i.e. one at the site level, second at the Green host level or Hub level and last at the Relief & Rehabilitation Centre level) will help manage cooperation, prioritization, decision-making and interventions for protecting a site's realm of ownership.

- The second version of the SMART Clouds framework could connect the Desks at the 3 different levels via network infrastructure and Cloud computing services.

- The third version of the SMART Clouds framework could implement a Core Collaborator that uses Mimic condition based monitoring to send out geo-coded control commands that request transformation of risk mitigation, or consumption and/or utilization patterns.

SMART Clouds

- NOTE: The term Mimic stands for a (timer-driven) visual condition based process control methodology that permits a Console to configure parameters that are important for process control and in turn monitor a signal, element, or process for different values or conditions.

- The Console can also send control commands to change the functioning of the element or process to ensure certain conformity or adherence. The key to incorporating Cloud computing services in this scenario is that we need anytime, anywhere and networked connectivity with elements like Relief & Rehabilitation Centres to help people (consumers, customers, providers, businesses etc) unite in their focus for awareness, sensitization, and adherence to practices to help mitigate disasters, fight climate change and also demonstrate Lifecycle Management for conscious self-organization and greener tomorrows.

- FYI: BMAA+ accounts stand for Green Identity accounts where the leaf or site demonstrates **B**asic Lifecycle management, or **M**anaged adherence, or **A**daptive conformity or **A**$^{+}$utonomic self-organization. The details about the different categories of accounts are part of the Unified Enterprise Management toolkit offering.

Effectiveness in uncontrollable situations and mass emergencies

This reckoner(CD) can help a third party company or community plan for and implement or improve solutions for life saving practices and fail-safe services at times of disasters like floods, earthquakes, fires, mass accidents, epidemics etc.

- Disasters/emergencies
- Standards and Practices
- Readiness/Mitigation

The consultant K.S.Venkatram has a B.E. in Computer Engineering, and also holds MCP, MCAD and MCSD certifications. He has 20 years of experience in IT Service Management, manufacturing, healthcare etc