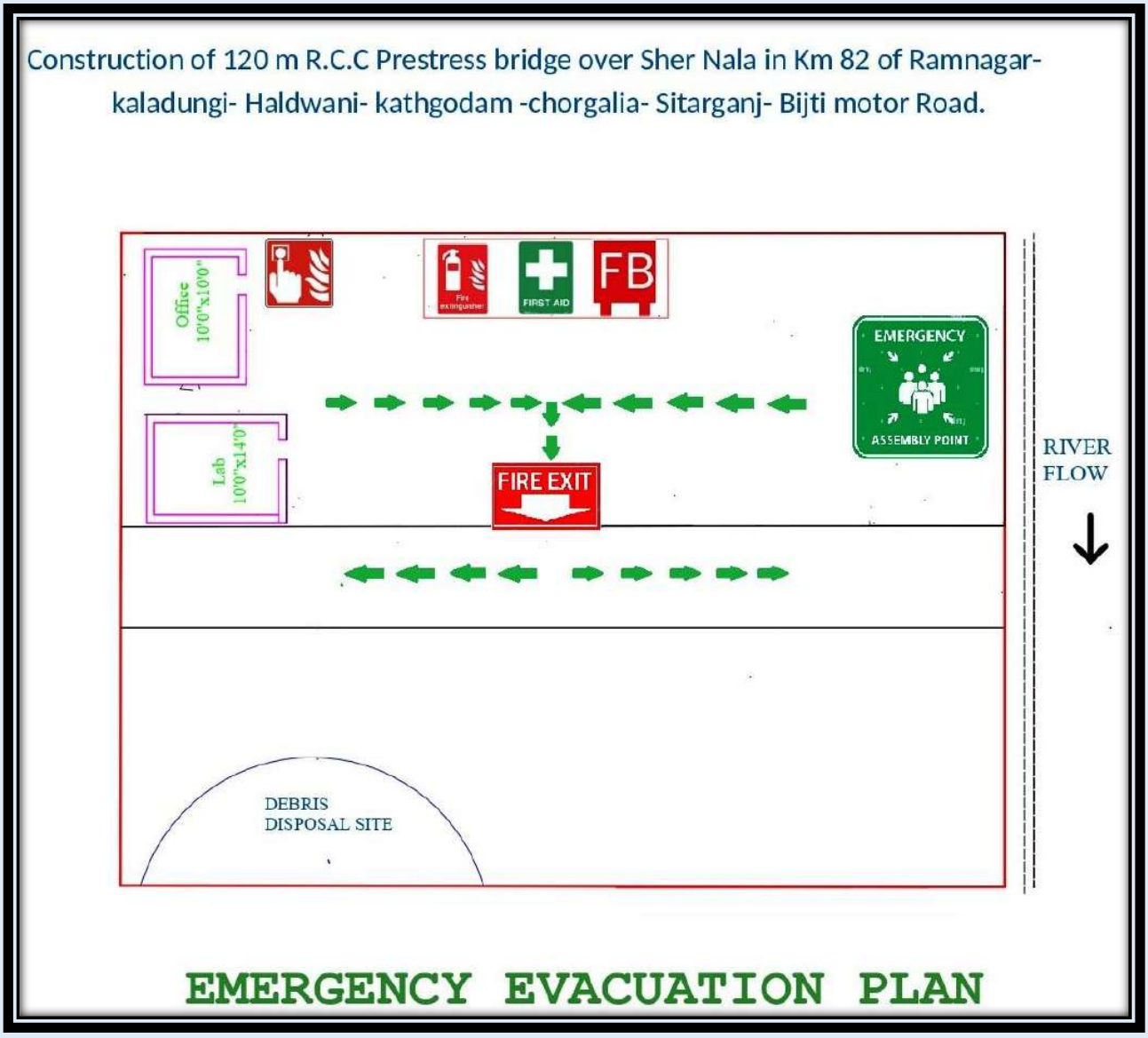
THE WORLD BANK

UTTARAKHAND DISASTER PREPAREDNESS & RESILIENCE PROJECT (U-PREPARE)



Emergency Preparedness Response Plan

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Emergency Preparedness Response Plan

1. OBJECTIVE & SCOPE:

The primary objective of the EPRP is to establish an organization structure and procedures for response to any potential emergency situations that could arise during the construction phase of the Project. The plan has a dual purpose: first, it aims to proactively prevent emergencies during the construction phase of the project; second, it aims to minimize potential damages that might occur due to unexpected emergencies. This document describes the structure of contractor's emergency response management system and the various consisting elements. It assigns the roles and responsibilities for the implementation of the plan during an emergency following the incident command system model. These include emergencies stemming from natural disasters, potential fires within the work area and surrounding forests, traffic accidents, incidents involving hazardous materials, and more. To effectively address these potential challenges, EPRP has been developed.

2. EMERGENCIES:

The emergencies, for which preparedness must be arranged; within the emergency response system may be Natural disaster categorized as follow:

A. Earthquakes
B. Landslides
C. Fire,
D. Floods, flash floods,
E. Cloud bursts, storms,
F. Pandemics etc.

A. Earthquakes:

- ***Preparedness***
  - During extreme weather conditions like cyclone, storm etc. suspend works to prevent disasters.
  - Instruct everyone to evacuate the excavated area and assemble in open space whenever earthquake tremors are felt or such alerts are informed.

➢ ***Response***

- Instruct all to immediately vacate the area and assemble in a safe area away from the disaster scene.
- Utilize appropriate equipment such as, whistles or bells for communication wait until the earthquake effect passes in the closest sheltered area.
- Protect yourself in case of bending and holding at points that will form a life triangle, such as the sides of the fixed machine body, the sides of the solid goods.
- *Heavy objects should not be placed on high places in construction sites* (offices, camp etc.).
- There should be no objects in the work area that could fall or flow on floor coverings, shaft and cavity edges.
- When the earthquake effect is over, go out of the nearest emergency exit and go to the assembly area.

Fig 1. Earthquake Safety Action

B. Fire:

Emergency Response Methods:

Ensuring the safety of the employees who will respond is the priority in the fire. The fire department should be informed immediately. Employees should de-energize nearby machinery or equipment if possible. It should be ensured to go to the "Emergency Assembly

Point" without panic by using the pre-determined and announced emergency exit routes. Things to do in the emergency area in case of fire are listed below.

- If the fire is small, extinguish any visible flames with a portable fire extinguisher and notify your Occupational Health Safety Expert (OHS).
- Arrange adequate quantity of appropriate type of fire extinguishers.
- Inspect the fire point to check the availability and usability of the fire extinguishers.
- Organize fire trainings for the staffs and workers to make them aware of use of fire extinguishers
- Raise the alarm: Immediately activate the fire alarm and alert others in the vicinity.
- Evacuate promptly: Use designated exit routes and proceed to the assembly point without stopping.
- Account for everyone: Ensure all individuals are accounted for at the assembly point.
- Call emergency services: From a safe location, contact the fire department.
- Cut off the energy of the Machine-Equipment you are working with.
- If there is no loss of life, go safely to the assembly area using the emergency exit route (if there is an item to be rescued first in a fire, take it with you).
- Do not pass through a completely smoke-covered area on the emergency escape route.

Fig 2. Fire Emergency Action Plan

C. Flood, flash floods

Emergency Response Methods:

- *Evacuate to Higher Ground*: This is the most crucial step; move to designated high points as soon as a flood warning is issued, especially during flash flood situations where time is critical.

Fig 3. Evacuate to Higher Ground

- *Follow Warning Systems*: Actively monitor local weather updates and community warning systems like sirens or loudspeakers to receive timely information about potential floods.

Fig 4. Flood Warning Systems

- *Damage Assessment*: Once the flood subsides, conduct a thorough assessment of damage to infrastructure, homes, and property to prioritize repairs.

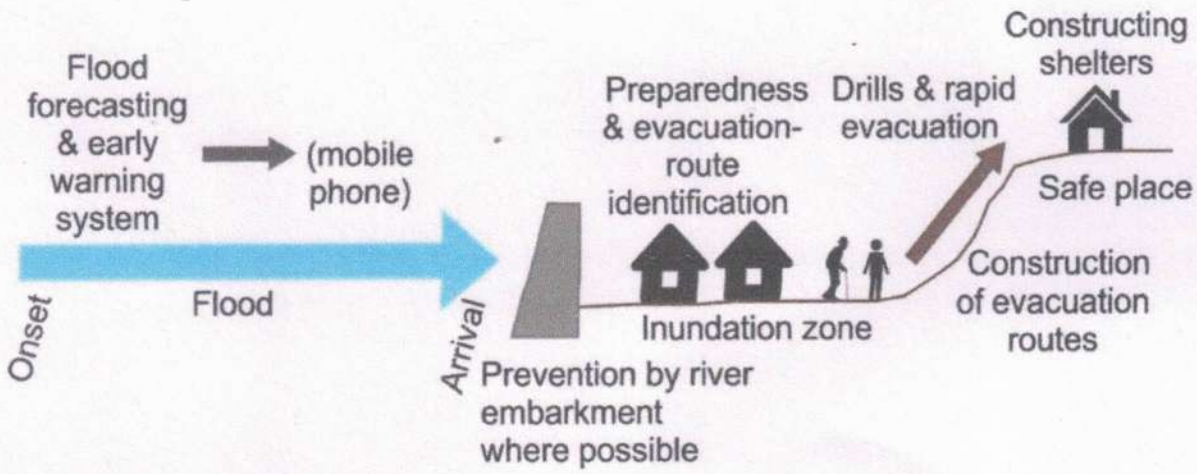

Fig 3. The proposed methodology for flood risk management

D. Landslide:

Emergency Response Methods:

- If possible, immediately evacuate the area.
- Try to get out of the path of the landslide or mudflow.
- Run to the nearest high ground in a direction away from the path.
- If rocks and other debris are approaching, run for the nearest shelter such as a group of trees or a building.
- If escape is not possible, curl into a tight ball and protect your head.
- If there is a landslide situation near the construction site, there must be a warning sign.

Fig 4. Landslide Warning Signs

E. Cloudburst:

Emergency Response Methods:

cloudburst emergency preparedness response involves staying informed about weather updates, identifying high-risk areas, preparing an emergency kit, evacuating to higher ground when necessary, avoiding low-lying areas and floodwaters, and following instructions from local authorities during a cloudburst event; key elements include early warning systems, community awareness campaigns, well-defined evacuation routes, and trained emergency response teams to effectively manage the situation.

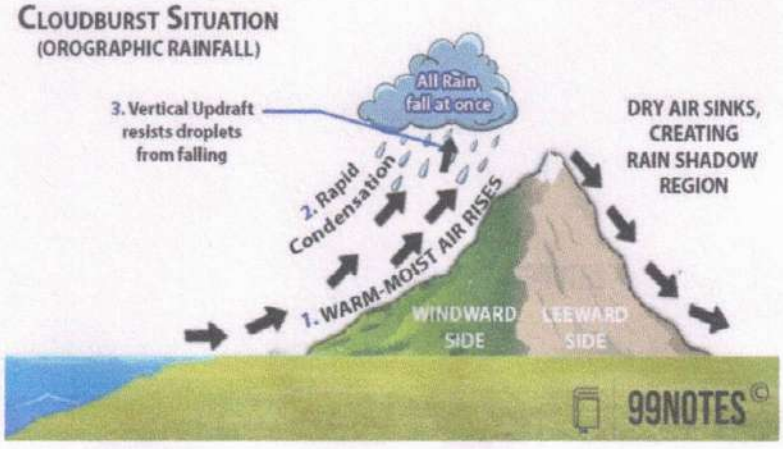

Fig 5. Cloudburst Situation

3. COMPONENTS OF EMERGENCY PREPAREDNESS & RESPONSE PLAN (EPRP):

Projects use Periodic Management Attention and Continuous Management Attention as a strategic tool to manage cautionary risk and critical risk respectively. Accordingly, Project Specific Emergency Preparedness and Response Plan are evolved incorporating five components;

- Prevention
- Preparedness
- Response
- Recovery
- Mitigation

Fig 6. Emergency Preparedness and Response Plan Components

4. ROLES AND RESPONSIBILITIES:

The organizational structure for the implementation of the plan is shown separately for the construction and operation phases in Table 1.

Roles	Responsibilities
Construction Phase:	
PMU/PIU (UPREPARE)	• Responsible for the overall coordination and management of the project or program at the PMU/PIU level.
FPIU-PWD (UPREPARE)	• Responsible for implementing project activities at the regional or local level according to the guidelines and instructions provided by the PMU/PIU. • The implementation of the EPRP and ensuring the fulfillment of all commitments under the EPRP. • It is the FPIUs responsibility to stop work in any situation that threatens the environment, human health, and safety, and in the event of any incidental situation. • Identifying and addressing implementation challenges at construction site, working collaboratively with the PIU (UPREPARE) and Contractor to find solutions.
Contractor	• Responsible for forming emergency response teams, selecting their leaders, and ensuring they receive training. • Responsible for executing, reviewing, approving, and coordinating various activities required for project implementation and completion. • Responsible for the preparation and, when necessary, updating of this plan based on project activities and operations. • Responsible for ensuring the implementation of the procedures and guidelines outlined in this plan. • Responsible for including provisions related to Occupational Health, Safety, Environment (OHS&E), and Social requirements in contracts with national regulations, relevant international standards, and project standards. • Responsible for allocating resources from within their organization to support the effective execution of this plan.

Project Manager	• Responsible for coordinating the implementation of this plan throughout construction. • Responsible for adhering to all requirements stipulated in this plan as per contract terms. • Responsible for overseeing the completion of emergency drill training mentioned in this plan.
EHS Team	• The responsibility of the EHS Team includes assessing emergency risks, preparing plans, training personnel, conducting audits and monitoring, ensuring communication and coordination, implementing intervention procedures, and facilitating continuous improvements.
OHS Expert	• Responsible for organizing and monitoring the implementation of this plan. • Responsible for enforcing appropriate control procedures and conducting necessary inspections. • Responsible for providing necessary training to all personnel working on the project and ensuring the implementation of relevant procedures and basic requirements.
Emergency Response Team	• Responsible for coordinating and executing emergency response procedures. • Responsible for conducting initial assessments of emergency situations. • Responsible for maintaining effective communication with all relevant parties during emergencies. • Responsible for managing and allocating necessary resources for emergency response.

Roles	Responsibilities
Operation Phase :	
PMU/PIU (UPREPARE)	• Responsible for the overall coordination and management of the project or program at the PMU/PIU level.
FPIU-PWD (UPREPARE)	• Responsible for implementing project activities at the regional or local level according to the guidelines and instructions provided by the PMU/PIU. • The implementation of the EPRP and ensuring the fulfillment of all commitments under the EPRP. • It is the FPIUs responsibility to stop work in any situation that threatens the environment, human health, and safety, and in the event of any incidental situation. • Identifying and addressing implementation challenges at construction site, working collaboratively with the PIU (UPREPARE) and Contractor to find solutions. • Responsible for the preparation and, when necessary, updating of this plan based on project activities and operations.
Project Manager	• Responsible for ensuring the implementation of the procedures and guidelines outlined in this plan. • Responsible for allocating resources from within their organization to support the effective execution of this plan.

	• Responsible for coordinating the implementation of this plan throughout operation. • Responsible for adhering to all requirements stipulated in this plan as per contract terms. • Responsible for overseeing the completion of emergency drills and training mentioned in this plan. • Responsible for forming emergency response teams, selecting their leaders, and ensuring they receive training.
EHS Team	• The responsibility of the EHS Team includes assessing emergency risks, preparing plans, training personnel, conducting audits and monitoring, ensuring communication and coordination, implementing intervention procedures, and facilitating continuous improvements.
OHS Expert	• Responsible for organizing and monitoring the implementation of this plan. • Responsible for enforcing appropriate control procedures and conducting necessary inspections. • Responsible for providing necessary training to all personnel working on the project and ensuring the implementation of relevant procedures and basic requirements.
EMERGENCY RESPONSE TEAM	• Provide First Aid and initiate action for shifting of victims to Hospitals • Inform the Emergency Controller about the situation and request for external support, if found necessary • Coordinate with the external agencies • Responsible for coordinating and executing emergency response procedures. • Responsible for conducting initial assessments of emergency situations. • Responsible for maintaining effective communication with all relevant parties during emergencies. • Responsible for managing and allocating necessary resources for emergency response. • Responsible for ensuring the safety and evacuation of all personnel in the affected area. • Responsible for participating in regular emergency response training and drills. • Responsible for conducting post-incident reviews to improve future responses. • Responsible for adhering to and implementing the requirements of this plan. • Responsible for attending relevant training sessions designated for them in this plan. • Responsible for reporting any non-conformities.

5. EMERGENCY RESPONSE TEAM (ERT):

S.NO	ERT	MEMBER
1.	EMERGENCY RESPONSE COORDINATOR	EXECUTIVE ENGINEER (FPIU-PWD)
2.	EMERGENCY RESPONSE SUB-COORDINATOR	ASSISTANT ENGINEER (FPIU-PWD)

3	EMERGENCY RESPONSE TEAM LEADER	PROJECT MANAGER
4.	RESCUE CONTROL HEAD	OHS EXPERT
5.	RESCUE AND FIRST AID TEAM	PROJECT MEMBER

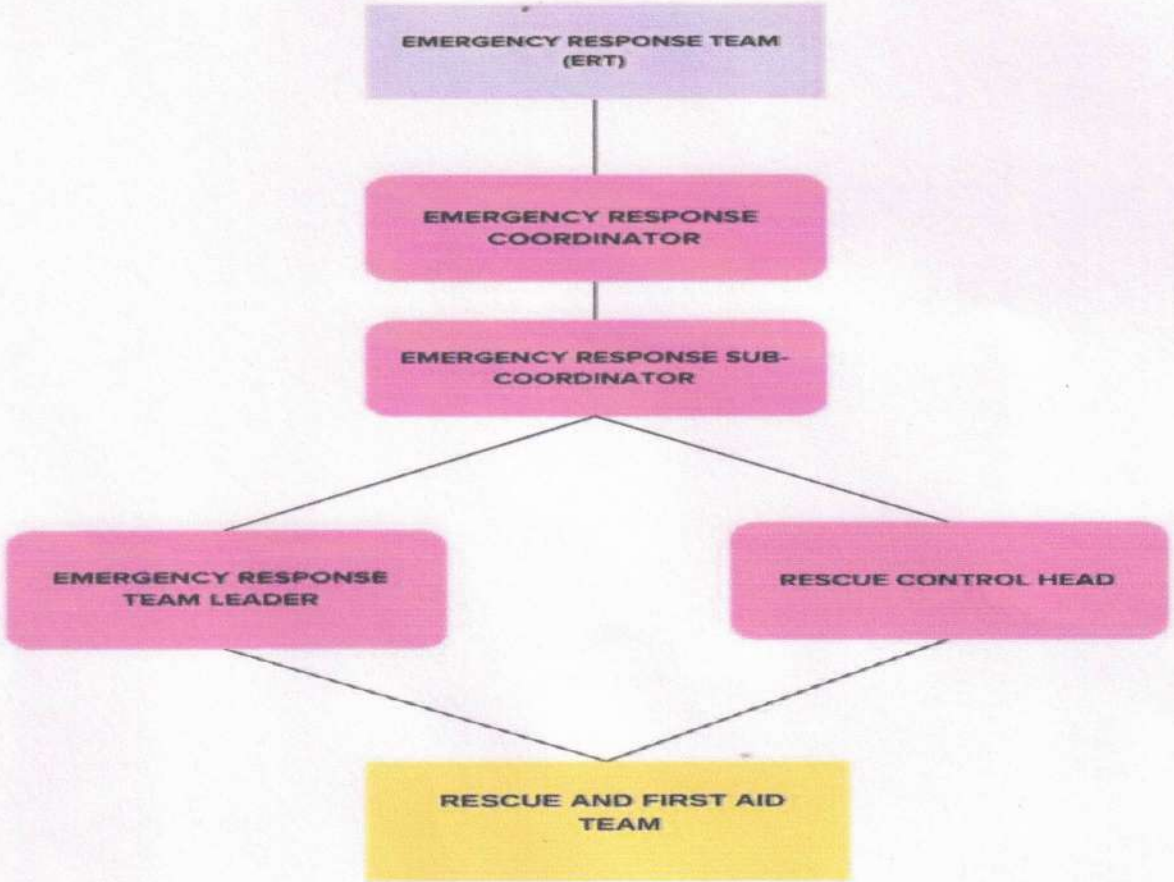

Fig 7. Emergency Preparedness and Response Team Flow chart

6. TRAINING:

Construction Phase: The contractor will provide all employees/worker with basic training on Emergency Preparedness and Response will consist of the following elements:

- Induction training
- Job-specific expert training (e.g. excavation operators)
- Training of emergency response teams

These trainings will be provided to provide all personnel with information about emergency response and planning. Also during the construction phase, emergency exercises related to emergencies such as earthquake, fire, etc. will be planned and

implemented. Events such as a work accident, hazardous situation, near-miss in the field will be recorded regularly and the training program will be revised in the light of this information.

Operation Phase

During the operation phase of the project, regular training on emergency preparedness and response will include the following elements:

- General emergency awareness training
- Fire safety and response training
- First aid training
- Evacuation procedures training
- Natural disaster preparedness training
- Accident and incident management training
- Emergency communication protocols training
- Drills and simulations
- Crisis management and coordination training

These trainings will be provided to inform all personnel about emergency response and planning. Emergency drills related to emergencies such as earthquakes and fires will be regularly planned and implemented during the operation phase as well. Incidents such as work accidents, hazardous situations, and near misses that may occur on site will be regularly recorded, and the training program will be updated in light of this information.

7. DRILLS AND EXERCISES:

Emergency preparations are performed through drills. The Project teams gather at least twice a year and perform the drill. During the drill, scenarios are determined for all natural disasters and unnatural disasters. Within the framework of these scenarios, applications are performed, and solutions are proposed to address issues that may arise during the disasters, and they are resolved as part of the evaluations. All information related to these solutions is shared with the employees. Drills are held at least twice a year in order to ensure that the implementation steps of the prepared emergency plan can be followed regularly and implemented. Emergency plans are revised, and the required corrections are made based on the experiences gained and the issues identified during the drills.

Evacuation drills are held twice a year. Place, time of exercise, participating Emergency Response project members, names of other officials, and results of the exercise are

recorded in the "Exercise Minutes." Recommendations for reducing evacuation time and improving overall checks are also made. Fire drills will be conducted according to scenarios determined at the workplace. Fire drills will be held at least twice a year. All personnel will participate in the drill according to the scenario, and their actions will be monitored to reflect real-life conditions.

Annual Training Program:

Key Performance	Frequency	Records	Responsibility
Training records on emergency response	Once a year	Emergency Response Training Reports	Contractor/FPIU
Number of emergency drills	Once a year	Emergency Response Audit Reports	Contractor/FPIU
Having appropriate spill response equipment at site	Present every weekly check in a year	Monitoring Reports	Contractor/FPIU

8. REPORTING AND MONITORING:

An internal reporting system will be designed to ensure a timely feedback procedure incorporating results of monitoring into management practices. During construction phase all drills, audits and trainings will be reported to FPIU-PWD by the contractor in a Quarterly manner or whenever necessary. During the operation phase, all drills, audits, and trainings will be reported to FPIU-PWD Quarterly by the OHS Expert.

PMU/PIU (UPREPARE) will be promptly notified of any incident or accident related to the Project that has, or is likely to have, a significant adverse effect on the environment, the affected communities, the public or workers including but not limited to; incidents and accidents encountered during construction and operation works, environmental spills, etc.

Sufficient detail will be provided regarding the incident or accident, findings of the Root Cause Analysis (RCA), indicating immediate measures or corrective actions taken or that are planned by contractor. As per PMU/PIU (UPREPARE) request, a report on the incident or accident together with measures proposed to prevent its recurrence will be prepared.

EPRP monitoring will ensure an early warning for emerging risks, which will enable early actions to be taken to mitigate the impacts of such risks. The EPRP and the Project's site-specific management plans/procedures will be reviewed and revised periodically and if necessary, updates will be made as the Project proceeds. Validity of indicators will also be checked on a regular basis, and as required with the availability of new information.

In general, the expected review and update frequency is determined as at least once in a year. However, it should be noted that immediately following an emergency, if an additional need arises without waiting for the predetermined frequency, the OHS will review the plan and report their assessment to the Project Manager. If an update is necessary, it will be ensured by the contractor during the construction phase and by FPIU-PWD during the operation phase.

During the operation phase, the Environment expert and project team, and during the construction phase, the contractor and the contractor's OHS expert are responsible for being fully aware of the content of this plan, ensuring that personnel receive appropriate training, and ensuring that procedures are implemented to comply with this plan.

9. EMERGENCY CONTACT LIST :

EMERGENCY COMMUNICATIONS	
CONTACT	**TELEPHONE NUMBER**
AMBULANCE HELPLINE	108
FIREBRIGADE	101
POLICE	100
DISASTER (EARTHQUAKE / FLOOD) N.D.M.A (CONTROL ROOM)	022-22027990
CENTRALIZED HELPLINE NO.	112
DISTRICT EMERGENCY OPERATION CENTRE	1077
CHILD HELPLINE:	1098
WOMEN HELPLINE:	1090

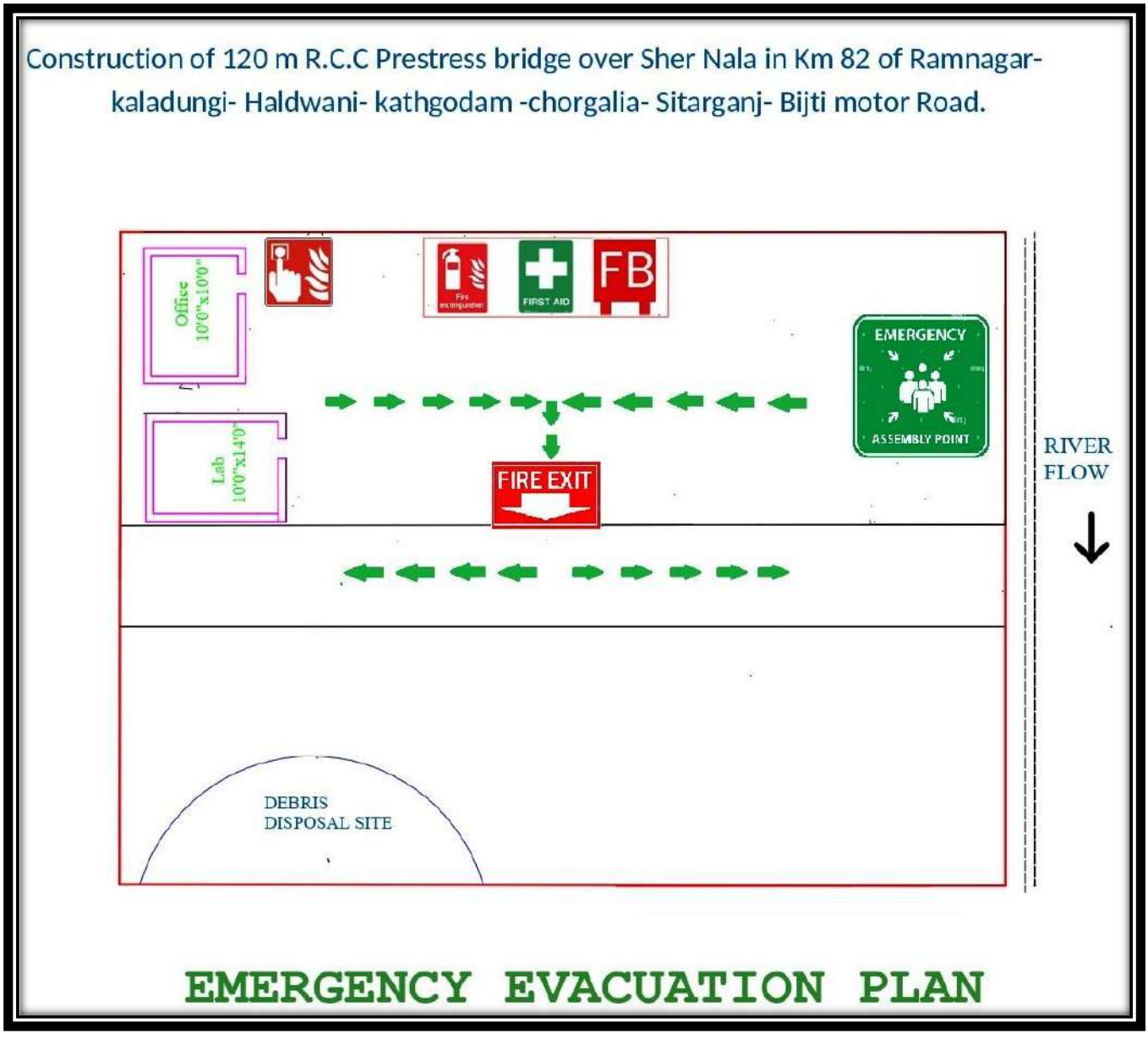

Fig 8. Emergency Preparedness and Response Team Flow chart