

Science Dept
28/7
11/08/2020

Time Bound

EDN-H(4)(Ele)5/2018-Disaster -
Directorate of Elementary Education
Himachal Pradesh,
Dated : Shimla -171001,

प्रारम्भिक शिक्षा निदेशालय (हि.प्र.)
28 July, 2020
शिमला-1

To

Kangra
All the Deputy Director of Elementary Education
Himachal Pradesh Shimla-1

Subject:

Implementation of effective measures for mitigating the effects of urban flooding.

Please find enclosed, herewith the photocopy of letter No. RRev(DMC)(F)-4-2/2019 dated 20.6.2020 alongwith its enclosure received from the Principal Secretary(Rev-DM) to the Govt. of Himachal Pradesh on the subject cited above.

In this context, you are requested to go through the contents and take further necessary action in the matter accordingly and prepare the action plan on the following points:-

- i) Identification of Schools (GPS/GMS) in high raised areas with enough capacity for temporary relief centre during floods
 - ii) Teacher training.
 - iii) List of zonal schools where 24 hrs staff is available.
 - iv) Organize education programme to raise awareness.
- In addition to above point no. ii), iii), iv) and v) as per SOP.

In this connection, you are directed to take further necessary action in the matter accordingly under intimation to this Directorate immediately, so that quarter concerned could be informed accordingly.

Joint. Director (s)
Directorate of Elementary Education,
Himachal Pradesh

Endst. No. even dated: Shimla-171001

July, 2020

Copy to :-

- 1 The Principal Secretary(Rev-DM) to the Govt. of Himachal Pradesh for information please.
- 2 Guard file.

Joint. Director (s)
Directorate of Elementary Education,
Himachal Pradesh

606
11/08/2020
EDNST. No. EDN-KGR(G-3)-Disaster-2019-20 2670 Dated 13 August 2020
O/o the Deputy Director of Elementary
Education Kangra at Dharamshala

Forwarded in original to all the Principals, Headmasters, Block Elementary Education Officer's of District Kangra (H.P) for information & further necessary action.

Dy. Director of Elementary Education,
Kangra at Dharamshala

Science Exam
11/08/2020

Time Bound

EDN-H(4)(Ele)5/2018-Disaster –
Directorate of Elementary Education
Himachal Pradesh,
Dated : Shimla -171001,

प्रारम्भिक शिक्षा निदेशालय (हि.प्र.)
28 JUL 2020
28 JUL 2020
शिमला-1

To

Langsa

All the Deputy Director of Elementary Education
Himachal Pradesh Shimla-1

Subject:

Implementation of effective measures for mitigating the effects of urban flooding.

Please find enclosed , herewith the photocopy of letter No. RRev(DMC)(F)-4-2/2019 dated 20.6.2020 alongwith its enclosure received from the Principal Secretary(Rev-DM) to the Govt. of Himachal Pradesh on the subject cited above.

In this context, you are requested to go through the contents and take further necessary action in the matter accordingly and prepare the action plan on the following points:-

- i) Identification of Schools (GPS/GMS) in high raised areas with enough capacity for temporary relief centre during floods
- II) Teacher training.
- III) List of zonal schools where 24 hrs staff is available.
- IV) Organize education prgramme to raise awareness.

In addition to above point no. II), III), IV) and V) as per SOP.

In this connection, you are directed to take further necessary action in the matter accordingly under intimation to this Directorate immediately, so that quarter concerned could be informed accordingly.

Joint. Director (s)
Directorate of Elementary Education,
Himachal Pradesh

Endst. No. even dated: Shimla-171001

July, 2020

Copy to :-

1. The Principal Secretary(Rev-DM) to the Govt. of Himachal Pradesh for information please.
2. Guard file.

606
11/08/2020

Joint. Director (s)
Directorate of Elementary Education,
Himachal Pradesh

No. Rev (DMC) (F) -4-2/2019
Department of Revenue (DM Cell)
Government of Himachal Pradesh.

9

CDE
S/O

24-6-2020

(2)

From

The Principal Secretary (Rev-DM) to the
Government of Himachal Pradesh, Shimla-2

To

G.2B 831
18.7.20

1. The Director General of Police, HP, Shimla -171002.
2. The Director General, HG & Civil Defense, HP, Shimla -1.
3. The Engineer-in-Chief, PWD, Nirman Bhawan, Shimla-2
4. The Engineer-in-Chief, IPH, US Club, Shimla-2.
5. The Director of Urban Development, Shimla-1
6. The Director, Health & Family Welfare,
7. The Director, Food & Civil Supplies, HP., SDA Complex,
Shimla - 171 009.
8. The Director Higher Education, Lalani, Shimla-1
9. The Director Elementary Education, Lalani, Shimla-1
10. The MD, HPSEBL, Vidyut Bhawan Shimla-4
11. The MD, HRTC Head Office, Shimla-3
12. All the Deputy Commissioners-cum-Chairpersons, DDMA (All
District in the Himachal Pradesh)
13. The Chief General Manger, BSNL, SDA Complex, Shimla-9
14. The Director, India Meteorology Department, Shimla -1

Dated Shimla-2, the 20th June, 2020

Subject: Implementation of effective measures for mitigating the effects of urban flooding.

Sir,

I am directed to refer to the subject cited above and to enclose herewith a copy of D O No K-14011/08/2019-UD-II dated 05.06.2020 received from the Ministry of Housing & Urban Affair, Government of India and to say that increasing trend of flooding in urban areas is a universal phenomenon and poses a great challenge to urban planners. It can result in damage to property, relocation of people, loss of life, damage to civil amenities, public and private property, disruptions in transport and power supply which can bring life to a grinding halt. It also results in deterioration of water quality and secondary effects of possible epidemics and exposure to infection takes further toll in terms of loss of livelihood, human suffering, and in extreme cases, also loss of life.

In view of above, to facilitate easy reference to the stakeholders, some of the major recommendations are consolidated by the Ministry of Urban Development, Government of India and have been released the **Urban Flooding**

Gem
Sant

SE-secy

20/6/20
A. K. Grewal
18/7/2020

Standard Operating Procedure (SOP). These SOPs are statutory in nature hence mandatory. The SOPs will help develop measures and strategies for assessment, forecast, preparedness and mitigation through coordinated efforts with multiple agencies and undertake reconstruction to build disaster-resilient infrastructure in the State.

A table containing roles and responsibilities of different stakeholder is enclosed for your reference. For more details, you may download soft copy from the Ministry of Housing and Urban Affairs website on the following URL: <https://mohua.gov.in/upload/uploadfiles/files/SOP%20Urban%20flooding%20May%202017.pdf>

You are therefore, requested to go through these SOPs and prepare point-wise action plan and implement the same for Prevention and Management of urban flooding with respect to your Department/Organization and share action taken to this department at the earliest, please.

Yours faithfully,

(D.C. Rana) 20/6/20
Director-Special Secretary (Rev-DM) to the Government of Himachal Pradesh.

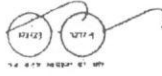
Dated, Shimla-2 the 20th June, 2020

Enst. No: As above
Copy forwarded to

1. The Secretary, Ministry of Housing & Urban Affairs, Nirman Bhawan, New Delhi-110011 w.r.t D O No K-14011/08/2019-UD-II dated 05.06.2020.
2. The **ASS** (Home/Health/ Food Civil Supplies & Consumer Affairs/ MPP & Power) to the Government of Himachal Pradesh, Shimla-2 for information.
3. The Pr. Secretary (PWD/Education/Transport) to the Government of Himachal Pradesh, Shimla-2 for information.
4. The Secretary (I&PH/Urban Development/) to the Government of Himachal Pradesh, Shimla-2 for information.

(D.C. Rana)
Director-Special Secretary (Rev-DM) to the Government of Himachal Pradesh.

शु. शंकर मिश्र
Durga Shanker Mishra
Secretary



55041779
10/06/2020
भारत सरकार
आवासन और शहरी कार्य मंत्रालय
निर्माण भवन, नई दिल्ली-110011
Government of India
Ministry of Housing and Urban Affairs
Nirman Bhawan, New Delhi-110011

D.O.No. K-14011/08/2019-UD-II
June 05, 2020

Dear Chief Secretary,

55038862
8/6/20

In view of the approaching monsoon season and the reported loss of life and property due to the two recent cyclones in the eastern and western parts of our country, timely implementation of effective measures for mitigating the effects of urban flooding is essential. In this regard, I would like to draw your attention to the Standard Operating Procedure (SOP) on Management of Urban Flooding brought out by my Ministry in 2017. The SOP is available on Ministry's website at http://mohua.gov.in/upload/uploadfiles/files/SOP%20Urban%20flooding_5%20May%202017.pdf. My earlier letters of even number dated 04.06.2019 and 30.06.2018 may also be referred.

2. The SOP lays down the responsibilities of various agencies of the State and the Central Government and lists out the measures to be taken to mitigate the adverse impacts of urban flooding and ensure quick recovery to normalcy. These include the steps to be taken before, during and after the flooding. I am sure that you would have ensured that all the ULBs and other relevant agencies in your State have adapted it in the local context.

3. Further, I would like to draw your attention to this Ministry's D.O. of even number dated 20.04.2020 (copy enclosed) to the States/ UTs wherein it was advised to take up labour intensive anti-flood measures using the Finance Commission grants as there is an urgent need to provide livelihoods to the migrant labour.

4. I shall be grateful, if you could kindly reiterate the instructions to the ULBs and other relevant agencies in your State / UT to review the implementation of the SOP for Management of Urban Flooding. These need to be positively completed before onset of monsoon in order to obviate the occurrence of the urban floods.

Regards,

Yours Sincerely,

(Durga Shanker Mishra)

Encl: As above.

All Chief Secretaries of States / UTs.

6820
Secy (UD)
B. Secy (Law)
SSC Rev. DMF
8/6/2020
09-06-20
DMS

Enclosures Forwarded to Secy C

SANJAY KUMAR, IAS
Joint Secretary
Urban Development & Local Self Government
GOVERNMENT OF INDIA
MINISTRY OF HOUSING AND URBAN AFFAIRS



संजय कुमार, आई.ए.ए.
संयुक्त सचिव
शहरी विकास एवं स्थानीय स्वशासन
भारत सरकार
आवासन और शहरी कार्य मंत्रालय

D.O. No. K-14011/08/2018-UD-II

Dated : 20th April, 2020

Dear Madam / Sir,

The nationwide lockdown clamped to check the spread of COVID-19 has adversely impacted the livelihoods' opportunities of the urban poor working in the informal sector as well as the migrant poor stranded in the camps across the ULBs. There is an urgent need to provide them with immediate wages through various labour intensive activities.

2. One such opportunity could be execution of labour intensive anti-flood works like desilting and repair of storm water drains, creation and maintenance of rain harvesting structures, deepening and desilting of lakes, increase in green cover etc. before the onset of the ensuing South-West monsoon. This will not only provide employment and wages to the urban poor but also help ULB in tackling the instances of heavy downpour, urban flooding etc. (A copy of such guideline issued by the Government of Odisha is enclosed for your ready reference).

06.06.20
Secy (UD)

3. Government of India has released nearly Rs 13,510 Cr in March 2020 towards the 14th FC Basic Grant. This amount may be used for these activities in addition to the State Finance Commission Grants. The Ministry has taken up the matter with Ministry of Finance for early release of the first installment of the 15th FC also.

4. I, therefore, request you to consider taking up labour intensive anti-flood measures in your State/UT duly following the Standard Operating Procedure (SOP) on Management of Urban Flooding, available on the website of the Ministry at <http://mohua.gov.in/upload/uploadfiles/files/SOP%20Urban%20flooding%20May%202017.pdf> while taking up activities in this regard.

5. I urge you to accord **Top Priority** to this matter.

With regards,

Enclosure : As above

To

The Principal Secretary/Secretary,
(Municipal Administration/
Urban Development Department)
of all States/UTs

Yours sincerely,

(Sanjay Kumar)

Urban Flooding Standard Operation Procedure

Urban Local Body

Urban Local Body		Activities
Phase	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Setting up of EOC and CCR with Ham Radio or other relevant technology ii. Issue directions to repair/restore/maintain roads, drains, trees (prune), etc. iii. Prepare city Disaster Management Plan, with ward level DM actions iv. Define triggers for issuing of alerts and warnings – rainfall / special event, etc. v. Update data on flooding spots and landslide prone area vi. Conduct coordination meetings with MTNL/BSNL, Mobile companies, NGO's etc. vii. Undertake TNA & capacity building measures for staff & personnel viii. Conduct Mock Drills ix. Maintain stock of potable water, food packets, insecticide, etc.
II	Early Warning Phase	<ul style="list-style-type: none"> i. Communicate with EOC for issuing alerts to the Crisis Control Room ii. Mobilize staff and reserve equipment for field deployment iii. Maintain inventory of refuge areas and temporary shelters iv. Send out alerts and warnings to Citizens (refer detailed chart) v. Prepare passes/ stickers for vehicles and personnel on duty vi. Monitor flood and landslide prone areas using sensors/ consolidating citizen response/ crowd-sourcing/ physical inspection
III	Response Phase	<ul style="list-style-type: none"> i. Activate emergency alarms and systems ii. Issue public information and advisories iii. Transport/shift/ evacuate stranded/affected persons and deploy Rescue teams iv. Ensure connectivity, clear uprooted trees, dispose of corpses v. Organize temporary shelters with food and water supply vi. Issue passes/identification stickers for vehicles and personnel on duty vii. Coordinate the activities of NGOs and other private entities engaged in relief work viii. Coordinate with CCR and if required with other agencies like for school children, transport, traffic, dewatering pump operators, stand-by boats, etc. ix. Coordinate the activities of NGOs and other private entities engaged in relief work
IV	Relief Phase	<ul style="list-style-type: none"> i. Setup Relief Camps and temporary rescue zones ii. Provide relief material including food, water and other consumables iii. Co-ordinate relief material from various relief supplies iv. Disseminate information for public on relevant platforms/ media
V	Restoration Stage	<ul style="list-style-type: none"> i. Implement Rehabilitation of affected with minimum basic services ii. Restore emergency equipment's and stocks iii. Closure of relief camps with handover of land and equipment iv. Disseminate information for public on relevant platforms/ media

Urban Development Authority

	Phase	Activities
I	Preparedness Phase	i. Assist ULB to prepare city Disaster Management Plan and DM action plan for all emergencies ii. Demarcate River catchments / flood plains/ Low lying areas/flood pathways and prepare Base flood hazard map iii. Map location of man-holes, storm water drains, other critical features Undertake Training Needs Assessment & capacity building measures for Flood mitigation iv. Integrate department specific plans and DM concerns into: <ul style="list-style-type: none"> • City drainage plan • Master Plan/CDP • Land Use plan v. General Development Control Regulations Building Bye-laws vi. Submit integrated department specific plans to EOC
II	Early Warning Phase	i. Communicate with EOC for demarcation of high grounds in the city ii. Identify holding and safe stocking zones/areas for relief supplies iii. Identify refuge areas and temporary shelters for affected population and livestock iv. Use field data to map safe transport routes within and out of the city v. Update the digital city map with all linked infrastructure and inventories
III	Response Phase	i. Coordinate with CCR and other agencies for updated status of various infrastructure ii. Provide field agencies and staff with required maps and data
IV	Relief Phase	i. Undertake rapid assessment of affected areas ii. Maintain an inventory of "Transit shelters" with capacity, linked with the spatial base map iii. Maintain an inventory of "Transit shelters" with capacity, linked with the spatial base map
V	Restoration Stage	Prepare Rehabilitation Plans and layouts with minimum basic services.

Health & Family Welfare department

	Phase	Activities
I	Preparedness Phase	i. Prepare an Emergency Health crisis management plan for prevention of epidemic. ii. To establish an Epidemic Control Unit (ECU) with reliable connectivity iii. Analysis of the data received from hospitals (Public & Pvt.), disease list from ECU. iv. Maintain emergency stock of medicine/equipment/blood. v. Maintain in good working condition, adequate no of Ambulances, mobile dispensaries, Hearse vans for movement of corpses. vi. Prepare a directory of Health officers/professionals and medical facilities. vii. Undertake vaccination and disinfection drives viii. Develop skills and provide training to field staff/medical practitioners
II	Early Warning Phase	i. Alert field staff with proper equipment and kits. ii. Issue alert signal to the Pvt. and other public sector hospital for support. iii. Co-ordinate with EOC, police and transport for deployment of health officers and staff.

III	Response Phase	<ul style="list-style-type: none"> i. Coordinate with EOC for quick identification of affected zones for surveillance and response ii. Triage of the affected population to be done by experts with experience of emergencies and, if possible, local knowledge. Priority of cases Priority I – Critical and severely ill cases. Priority II – Moderate requiring resuscitation/ surgery within 24 hrs. Priority III – Minor cases / moribund cases. iii. Mobilize Ambulances and mobile dispensaries iv. Establish health facility and treatment centers at disaster/relocation sites. v. Communicate information of affected people to EOC. vi. Establish temporary morgue facilities at temporary shelters
IV	Relief Phase	<ul style="list-style-type: none"> i. Deployment of field staff as per the need in wards/zones. ii. Ensure adequate supply of medicines, disinfectants, equipment iii. Coordinate with EOC for vector control, fogging
V	Restoration Stage	<ul style="list-style-type: none"> i. Undertake disinfecting measures in contaminated zones. ii. Coordinate with Police for early disposal of dead bodies. iii. Prepare and Maintain crisis/epidemic management reports and submit final report to EOC.

Irrigation & Public Health

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Upkeep and maintenance of drains periodically and update Drainage Master Plan. ii. De silting of storm water drains, culverts and canals periodically. iii. Redesign existing storm water and drainage systems in flood prone areas for adequate flow of volume of drainage. Cleaning of sumps and manholes for clog free flow of waste water. iv. Setting up of flood level markers within the city. v. Monitoring Flood levels of rivers, lakes, canals and other datum.
II	Early Warning Phase	<ul style="list-style-type: none"> i. On receipt of alert from EOC, field staff to be mobilized to the vulnerable area with all equipment and situation alert. ii. Installation of High capacity pumps in low lying areas. iii. Keep spare pump sets ready for all locations.
III	Response Phase	<ul style="list-style-type: none"> i. Coordinate with EOC for quick identification of affected drains and flooded areas. ii. Continuous monitoring of flooding spots and critical drains. iii. Update urgent repairs and restoration information to EOC & media.
IV	Relief Phase	<ul style="list-style-type: none"> i. Repair and maintenance of damaged drain and drainage networks in the flood affected area. ii. Provide contingency toilets and temporary drainage facilities. iii. Pumping out water from submerged low-lying areas.
V	Restoration Stage	<ul style="list-style-type: none"> i. Restore the damaged drain and refurbish drainage networks. ii. Prepare an Action Taken Report for all wards and zones and update network maps and log information. Submit to EOC.

Public Work Department

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Identify and map emergency groundwater resources resistant to disasters to replace damaged public and domestic water sources. ii. Ensure adequate no. of water tankers for emergency supplies. iii. Incorporate technology to identify leakages and breaches in network without onsite inspection iv. Install water supply outlets (taps/ Hand pumps/other) above flood level at identified temporary shelter sites to serve as emergency potable water sources
II	Early Warning Phase	<ul style="list-style-type: none"> i. Nodal officer to communicate with EOC and control room with updates. ii. Alert field staff on receiving alert/warning from EOC with properly equipped kits for closing/ opening of valves/manholes.
III	Response Phase	<ul style="list-style-type: none"> i. Close the supply valves of breached supply lines in the flooded zones/contaminated zones. ii. Mobilize resources to extract water from identified "Emergency ground water resources" iii. Make arrangement of on-site arrangements for potable water through tankers.
IV	Relief Phase	<ul style="list-style-type: none"> i. Provide safe drinking water supply in temporary shelters, hospitals etc. ii. Provide water to mobile toilets for transit and relief camps.
V	Restoration Stage	<ul style="list-style-type: none"> i. Restore all services to pre-disaster phase and maintain quality check. ii. Prepare an Action Taken Report and report to EOC.

Public Work Department (Road and Bridges)

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Maintain an inventory of all roads and bridges by hierarchy, equipment and tools for response and recovery efforts. ii. Train staff in safety assessment of infrastructure assets, strengthening and retrofitting, emergency response measures. iii. Identify core teams for technical/engineering support/decision making in Flood situations. iv. Prepare a Disaster Response map identifying safe routes and exits
II	Early Warning Phase	<ul style="list-style-type: none"> i. Nodal officer to Communicate with EOC and control room. ii. Identify and Establish emergency connectivity network and routes iii. Secure tools and equipment in safe locations, pre-position if needed. iv. Ensure/undertake checks to ensure infrastructure remains in operational condition, during flooding.
III	Response Phase	<ul style="list-style-type: none"> i. Undertake emergency structural rehabilitation/retrofitting measures of critical infrastructure.
IV	Relief Phase	<ul style="list-style-type: none"> i. Create / Provide emergency access in areas which communication links are lost/damaged severely during the event. ii. Construction of emergency structures (levees among others) to control flood risk.
V	Restoration Stage	<ul style="list-style-type: none"> i. Undertake detailed damage assessment of critical infrastructure. ii. Reestablishment of roads and bridges. iii. Undertake repair/strengthening works iv. Ensure safe construction practices are followed Provide technical support as required to other agencies Prepare all Action Taken Report and update "the road network map or inventory and report to EOC and Municipal Corporation.

Public Work Department (Building)

5

	Phase	Activities
I	Preparedness Phase	i. Maintain inventory list of all dilapidated buildings, equipment and tools for response and recovery efforts ii. Identify buildings in the low lying areas and develop strategy for strengthening / retrofitting so as to minimize damage. iii. Undertake prevention/protection/structural rehabilitation/retrofitting measures of lifeline buildings
II	Early Warning Phase	i. Depute the designated officials to EOC for coordination on all activities in the zones/wards of the city on Receipt of Warning from EOC. ii. Communicate with EOC and different agencies or vital inputs. iii. Alert residents of dilapidated buildings iv. Secure tools and equipment in safe locations.
III	Response Phase	i. Monitor dilapidated structures and update list of collapsed structures to coordinate with EOC ii. Intimate the action from time to time to EOC.
IV	Relief Phase	i. Recce damage to buildings and related infrastructure ii. Undertake repairs/ shoring to buildings and related infrastructure iii. Undertake construction of temporary structures and supporting structures to provide basic services to the affected population iv. Controlled demolition/ shoring of buildings which have turned unsafe
V	Restoration Stage	i. Conduct structural damage assessments ii. Undertake reconstruction/retrofitting of buildings/ community infrastructure iii. Submit Action Taken Report to EOC and Municipal Corporation.

Himachal Pradesh State Electricity Department

	Phase	Activities
I	Preparedness Phase	i. Prepare flood preparedness plan with information on earlier flood level with inventory of equipment. ii. Identify sensitive locations around high-risk power installations. iii. Periodical checking, testing, maintenance of all equipment and Instruments. iv. Provision for separate lines/ sources of power for critical substations v. Raise level of transformers and substations above flood level vi. Training of staff about handling the flood situation. vii. Listing of citizen response actions for public dissemination by EOC
II	Early Warning Phase	i. On receipt of alert from EOC, coordinate and monitor power installations ii. Secure tools and equipment in safe locations. iii. Disconnection of power in vulnerable areas
III	Response Phase	i. Ensure Emergency power supply lines to the Transit camps/Medical camps and temporary relief shelter. ii. Ensure the availability of mobile DG sets/ solar powered batteries of required places like relief camp. iii. Ensure safety from electrical installations or power supply at the disaster site.
IV	Relief Phase	i. Restore power supply in phases as per safety.
V	Restoration Stage	i. Undertake total restoration in all power supply zones/ any damaged infrastructure. ii. Prepare Action Taken Report for all wards and zones an update the information about power supply line and inventory and share the report with Municipal Corporation and EOC.

BSNL & other telecommunication Provider

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Prepare flood preparedness plan with information on earlier flood level. ii. Identify the high/medium risk telecommunication transmission towers. iii. Regular checking and maintenance of telecommunication towers and networks. iv. Link EOC and other control rooms with necessary communication devices like ham radio, hotlines, VHF, etc. v. Ensure availability of mobile communication devices vi. Training for department staff about handling the flood situation.
II	Early Warning Phase	<ul style="list-style-type: none"> i. Ensure the availability of Equipment and Spares Inventory with the field staff. ii. Ensure power backup for cell phones and telephone exchange.
III	Response Phase	<ul style="list-style-type: none"> i. Deploy portable communicable system in the vulnerable flood site. ii. Establish a temporary communication facility for use by various authorities /department/ agencies involved in Emergency Response tasks. iii. Manage sudden rush of communication traffic. iv. Set-up Emergency Hotlines, Helpline and service integration (Ambulance /Police/Fire) process.
IV	Relief Phase	<ul style="list-style-type: none"> i. Inspect and repair normalization of communication in flood affected areas. ii. Establish a temporary communication facility for use by the public.
V	Restoration Stage	<ul style="list-style-type: none"> i. Restore all telephone lines and telecommunication towers. ii. Prepare Action Taken Report for all wards and zones and update the information about telecommunication infrastructure and inventory log and share the report with Municipal Corporation and EOC.

Higher/Elementary-Education Department

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Identify Schools/ Institutions located in the high raised area with enough capacity to be used for temporary relief centre during floods. ii. Training of teachers and Students basic first-aid, and rescue methods. iii. Prepare List of vulnerable schools in low lying areas/ in water catchments, etc. iv. Prepare List of Zonal Schools where 24 hours' staff is available v. Organize education programs to raise awareness about action during flood.
II	Early Warning Phase	<ul style="list-style-type: none"> i. Alert relief shelter schools for readiness. ii. Coordinate with EOC for identification of potential "Relief Shelter" and necessary mobilization. iii. Information maps, escape routes, precautions to be taken, emergency communication details and contact of the nodal officer suitable displayed in the School/Institution display board.
III	Response Phase	<ul style="list-style-type: none"> i. Students of low lying area schools will be shifted to shelters ii. Intimate the action from time to time to EOC/ all line departments by action taken report through nodal officer.
IV	Relief Phase	<ul style="list-style-type: none"> i. Coordinate with EOC for updates and information dissemination, provision of supplies, etc.
V	Restoration Stage	<ul style="list-style-type: none"> i. Detailed damage assessment and repair of education infrastructure. ii. Prepare all Action Taken report through Nodal Officer to EOC/ Education Department.

Police Department

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Prepare emergency plan with focus on deployment of police personnel. ii. Keep rescue rope and life jackets ready iii. Training of police personnel in handling flood situations
II	Early Warning Phase	<ul style="list-style-type: none"> i. Depute the designated police officials to EOC for coordination on all activities in the zones/ wards of the city. ii. Effective Communication system for non-police functions with designated separate channels for rescue, relief and restoration. iii. On receipt of the alert/warning, disseminate information to all police officers/personnel and ensure action is initiated.
III	Response Phase	<ul style="list-style-type: none"> i. Deployment of Policemen and equipment for rescue ii. Quick Assessment of law and order situation in affected areas. iii. Active patrolling during disasters for preventing looting. iv. Provide assistance to persons with special needs in evacuation shelters such as small children, pregnant women and mothers with nursing infants etc. v. Intimate the action from time to time to EOC.
IV	Relief Phase	<ul style="list-style-type: none"> i. Maintain law and order and ensure crowd management. ii. Prepare detail report on evacuation and other rescue. iii. Safe transporting of personnel, resources and relief goods to and from the affected area iv. Provide safety for property, people and public peace. v. Provide safety in distribution of relief materials. vi. Provide safety for VIP who visits the affected area. vii. Efforts for identifying of missing persons and notification to the relatives. viii. Coordinating with all other department for rescue and relief.
V	Restoration Stage	<ul style="list-style-type: none"> i. Ensure law and Order for all restoration efforts. ii. Prepare Action taken report and submit to Municipal Corporation and EOC.

Traffic Police

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Prepare emergency traffic plan including detail mapping with focus on strategic routing and safe holding terminals. ii. Training to traffic police personnel in handling flooding situations and issues related to them. iii. Prepare flood contingency Plan in consultation with the Development authority, transport department and PWD(Road).
II	Early Warning Phase	<ul style="list-style-type: none"> i. Depute the designated officials to EOC for coordination on all activities in the zones/wards of the city on Receipt of Warning from EOC. ii. Communicate with EOC and different agencies for vital inputs during warning period. iii. Identify alternate routes for traffic in flood prone areas iv. Identify temporary parking lots and seek permission from landowners v. Identify sites for helicopter landing vi. Establish Effective Communication system

3-5

III		i.
IV	Relief Phase	<ul style="list-style-type: none"> i. Control and monitor traffic movements. ii. Organize Clear stranded vehicles obstructing movement of traffic. iii. roads or pathway of uprooted trees in coordination with PWD.
V	Restoration Stage	i. Prepare operational and management report and submit final report to Municipal Corporation Control Room.

Fire Department

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Train officers in basic flood rescue and response ii. Prepare plans for utilization of resources, personnel, equipment and supplies iii. Repair and maintain rescue boats and ancillary equipment iv. Conduct mock drills
II	Early Warning Phase	<ul style="list-style-type: none"> i. Communicate with EOC and different agencies for vital inputs during warning period. ii. Keep communication devices in a state of readiness iii. Ensure the availability and maintenance of equipment and vehicles. iv. Alert staff for Rescue and evacuation.
III	Response Phase	<ul style="list-style-type: none"> i. Dissemination of warning to common people by alarms, sirens, to public announcement system like radio, television, loudspeakers, hoisting of flags. ii. Rescue stranded persons iii. Evacuate persons from the affected areas iv. Coordination with Transportation, Public Work, Police and Traffic police during Rescue and evacuation. v. Clear roads or path-way of uprooted trees.
IV	Restoration Stage	<ul style="list-style-type: none"> i. Coordinate with other agencies in the restoration stage. ii. Prepare detail report on evacuation and other rescue.

Sankar

Indian Meteorological Department

	Phase	Activities
I	Preparedness Phase	<ul style="list-style-type: none"> i. Prepare "Regional Precipitation Study Report "based on earlier data of local rainfall and projections of future precipitation. ii. Maintain rainfall distribution/flood levels, cyclones and tidal waves time series data and patterns.
II	Early Warning Phase	<ul style="list-style-type: none"> i. Issue alerts based on anticipated water logging /water surge. ii. Deploy staff at weather monitoring stations for regular reports and updates.
III	Response Phase	i. Monitor rainfall data from each observation station and update the City Administration /Control room /EOC
IV	Relief Phase	<ul style="list-style-type: none"> i. Project data and time of incessant rain/precipitation. ii. Predict cyclones and Depressions/Heavy rains
V	Restoration Stage	i) Consolidate reports of climate and weather submitted to city administration/EOC and Development Authority.