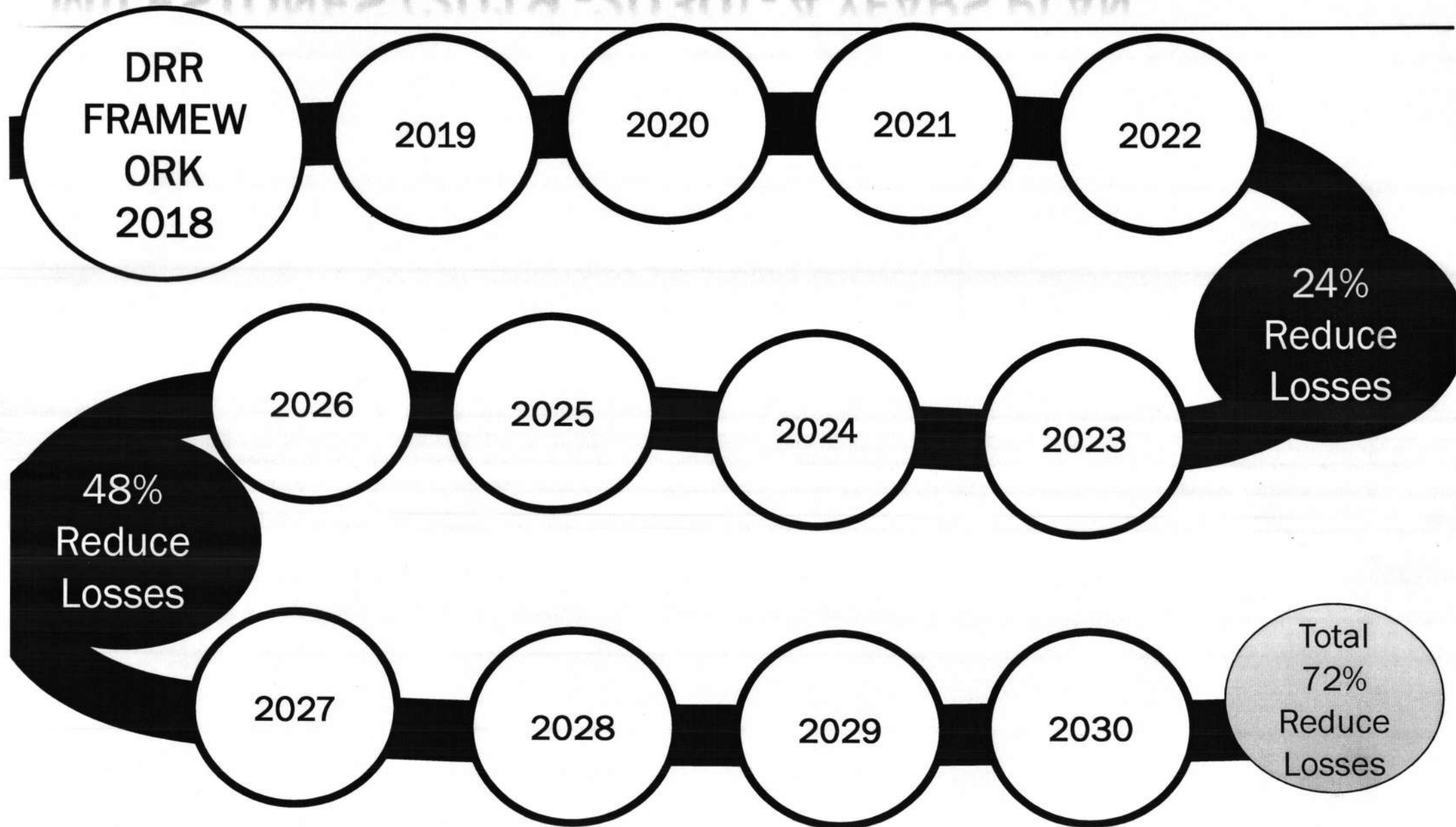


EVOLUTION OF NATURAL DISASTERS IN UTTARAKHAND (BASE LINE DATA 2015 TO 2018)

Losses	Total Losses (prev. 4 years)	Average	72% Reduce upto Year 2030	6% per Year Reduce target
Human Dead	309	77	55	5
Human Missing	41	10	7	1
Human Injured	256	64	46	4
Loss of Animals	6,605	1,651	1,189	99
House Damage (Partially)	5,092	1,273	917	76
House Damage (Severely)	1,412	353	254	21
House Damage (Fully)	476	119	86	7
Agriculture Land (Ha.)	153.8	38	27	2
Infrastructure (Road)	3,711	928	668	56
Infrastructure (Buildings)	24	6	4	1
Culverts/ Puliya/Bridges	6,225	1,556	1,120	93

MILESTONES (2019 -2030) - 4 YEARS PLAN



TARGET

- ✖ Lives lost due to natural disasters in the State would be reduced by 72% of the baseline level by 2030.
- ✖ Live lost due to transportation related disasters in the State would be substantially reduced over baseline level by 2030.
- ✖ People affected by natural disasters in the State would be reduced by 50% of the baseline level by 2030.
- ✖ Economic loss due to disasters in the State would be reduced by 50% of the baseline level by 2030.

ACTION FOR TARGET & SFDRR PRIORITY AREA

Sl. No	Specific Target (2019 - 2030)	SFDRR Priority
1	Communities understand and practice 'do's and don'ts' during disaster situations as a result of a state-wide public awareness and education campaign launched at all levels.	1 st
2	Platforms and mechanism are institutionalized across state of effective learning and sharing on DRR planning/implementing.	1 st
3	✓ Intutional strengthened with resources, mandates and capacities for playing an integral role in disaster risk reduction decision making at all levels.	2 nd
4	✓ All the line departments mandated to provide basic services and critical infrastructure.	2 nd
5	✓ All PRIs and ULBs are adequately empowered through funds, functions and functionaries to ensure sustainable DRR.	2 nd
6	Communities in all villages and cities regularly monitor current and emerging disaster risks, including underlying risks, and assert for measures to be taken to address the same.	2 nd
7	✓ Rural and urban habitat planning processes like land zoning, town and city development planning take into account existing and emerging disaster risks.	2 nd

ACTION FOR TARGET & SFDRR PRIORITY AREA

Sl. No	Specific Target (2019 – 2030)	SFDRR Priority
8	Capacities are created to assist Government and communities in safe construction of buildings. (Training of Engineers, Architects, Masons etc for safe construction completed)	3 rd
9	✓ Structural safety audits of all government offices and social infrastructure (such as Secretariat, Collectorates, Anganwadi centres etc.) is completed and corrective measures initiated	3 rd
10	✓ Building bye-laws incorporating safe construction in all urban areas are approved.	3 rd
11	Communities are encouraged and a policy regime is developed to enforce safe construction in rural areas.	3 rd
12	✓ Corrective measures, including retrofitting, for ensuring structural resilience of all government offices and social infrastructure are completed	3 rd
13	✓ Policies and practices for livelihood related risk avoidance, transfer, sharing, and compensation are adopted by agriculture and small industry based livelihood systems in the State.	3 rd
14	✓ All existing and new public and private buildings in the State are structurally safe from a multi-hazard perspective.	3 rd
15	An effective EWS & IRS is established for early warning information reception, dissemination and taking up immediate good enough pertinent action.	4 th

SPECIFIC ACTION FOR TARGET (VISION – A)
SUSTAINABLE DRR IN GRAM PANCHAYAT

Sl. No	Departments / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
1	PWD/BRO	Undertake preparatory tasks like repairs of roads and related structures, bathing ghats, construction of temporary bridges, cleaning of drains, setting up of temporary barricades, identification of exit routes, electricity provision, and such other arrangements at vulnerable areas.	Activity 1 to 6	Activity 1 to 9	Activity 1 to 4
2	Electricity Dept.	Promote installation of lightning conductors in community and public buildings like temples, Gram Panchayats, community centres, schools, Anganwadi Centres (AWCs), mobile towers.			
3	PWD/DDMA	Identify safe places at Gram Panchayat and village levels in all Group A and B districts for providing temporary shelters to affected communities during disasters, and wherever possible/land available construct multi-hazard shelters in Gram Panchayats of Group A and B districts.			

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SPECIFIC ACTION FOR TARGET (VISION – A) SUSTAINABLE DRR IN GRAM PANCHAYAT

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
4	USAC/GIS Based Agencies	Identify and prioritize high risk prone villages and develop scenario based inundation maps for planning, preparedness and response etc			
5	Irrigation	Undertake construction of retaining wall/embankments where necessary as well as maintenance and repair of existing embankments			
6	PRI Dept.	The beneficiaries of Government housing projects, such as, Pradhanamantri Aawas Yojana (PMAY), SBM should be encouraged to construct hazard resistant houses.			
7	Forest & Environment	Promote measures for rain water harvesting in drought prone districts from Group C. Undertake restoration of ponds, wells and canals and other traditional water sources in districts from A, B & C.			

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SPECIFIC ACTION FOR TARGET (VISION – A) SUSTAINABLE DRR IN GRAM PANCHAYAT

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
8	Agriculture Dept.	Undertake lab to land programs to disseminate the knowledge and reach of such seeds and plants to the Farmers and Promotion of horticulture activities.			
9	Transport Dept.	Sensitize drivers and community members on the model safety rules, norms, load line, search and rescue, and first aid. Ensure proper and standard signage are put on road side for safe travel.			
10	Fire Dept.	Ensure appropriate preparedness actions for controlling fire events. Identification of points for water extraction and making arrangements for motor pumps at decentralized locations at village/GP level. Undertake a fire-preparedness drive at the village level before the fire season. Purchase and deployment of appropriate firefighting equipment and fire tenders at <i>Thana level</i> in the high fire prone blocks.			

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SPECIFIC ACTION FOR TARGET (VISION – A)

SUSTAINABLE DRR IN GRAM PANCHAYAT

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
11	Social Welfare Department	Maintain and update list of children, infants, old, pregnant and lactating mothers for taking their proper care during disasters			
12	Technical Institution	Create Safe Construction Resource Centres in the partnership with IIT access to advice on construction technologies, costing and quality monitoring.			
13	PRD	Promote 'Community Radio' for enhancing resilience of villages, including targeted programmes for different social groups including woman, youth, children, and the elderly amongst others.			

SPECIFIC ACTION FOR TARGET (VISION – B) SUSTAINABLE DRR IN BASIC SERVICES

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
1	Health	Assess the health facilities and services in the State to determine the current status based on the risk analysis exercise: Identify and list the ‘Critical and Inaccessible Areas’ i.e. areas having least health services coverage or most frequent disruptions and are prone to epidemics. Plan for appropriate additional measures (like budget allocation, personnel, supplies, and resources) to be taken for provision of health services in Group A and Group B districts, especially in the critical and inaccessible areas. Create a mechanism to monitor and adapt service delivery plans for these Critical and Inaccessible areas.			

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SPECIFIC ACTION FOR TARGET (VISION – B) SUSTAINABLE DRR IN BASIC SERVICES

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
2	DW & S	Ensure the construction of raise toilets and public drinking water facilities in Group A and B districts as well as preposition and provision of mobile toilets. Inclusion of the recovery and reconstruction of drinking water sources in department's annual plans.			
3	Technical Institution	Conduct a 'Scenario-based Analysis' and develop a template for damage assessment and costing for recovery planning to be included as part of the annual plan of the department.			
4	PRD	Popularize the emergency helpline numbers along with enhancing public awareness on the purpose of its use.			
5	Forest & Environment	Develop and incorporate curriculum on Disaster Risk Reduction (DRR), Climate Change Adaption (CCA) and ecosystem.			

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SPECIFIC ACTION FOR TARGET (VISION – B) SUSTAINABLE DRR IN BASIC SERVICES

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
6	Social Welfare Dept.	Social Welfare Department to enhance resilience of institutions (residential or short-duration) existing within a district for provision of care to at-risk groups viz. District Disability Rehabilitation Centres (DDRCs), Shelter Homes, CCIs (Child Care Institutions including Orphanages, Foster Homes), Old-age homes, institutions housing, PWDs, Hostels (working women, SC boys, girls, ST), KGBVs, residential schools, mental health institutions, prisons, and such through: Mapping these various institutions. Undertaking structural and operational resilience related audits of these institutions. Taking up corrective measures based on these audits. Development of a disaster management plan for each of these institutions, including arrangements to ensure functioning or back-up facilities of these institutions in case of flood, earthquake, fire and other hazard events.			

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SPECIFIC ACTION FOR TARGET (VISION – B) SUSTAINABLE DRR IN BASIC SERVICES

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
7	Foods & Supply	Undertake a campaign to promote traditional food varieties, habits and practices for enhancing nutrition as well coping mechanisms and food security during disaster situations. Promote adequate stocking of PDS items in FCI as well as state warehouses for the flood season and the distribution of the same to the PDS dealers before the onset of floods in the Group A and B districts.			
8	ULBs	Urban Development Department to create mechanisms and procedures for strict monitoring of adherence to the building codes and safety norms during building construction.			

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SPECIFIC ACTION FOR TARGET (VISION – B) SUSTAINABLE DRR IN BASIC SERVICES

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
9	PRI Dept.	Orient the service providers to work with PRIs and ULBs so that they identify risks related to basic services and plan for addressing the same through participation of service providers in PRI planning. Panchayat Raj Department to develop a menu of designs and manuals thereof with varying cost slabs for different economic strata for rural housing and homestead from difference geo-climatic zones and multi-hazard context of Group A and B districts.			
10	Education	Assess the education facilities and services in the State to determine the current status based on this DRR. Develop a template for School & College Disaster Management Plan (School / College – DM Plan), orient School Committee Members (SCM) on development of DM plan and ensure that all schools and colleges develop a DM Plan and update it.			

SPECIFIC ACTION FOR TARGET (VISION – C) SUSTAINABLE DRR IN INFRASTRUCTURE

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
1	Electricity Dept.	On the basis of this exercise, undertake corrective actions, including strengthening or relocation of power generation units, sub-stations, transformers, transmission towers, installation of towers in selected areas, reinforcing through specialized materials, underground cabling, and such especially for Group A and B districts.			
2	USAC/GIS based Agencies	Map the existing power infrastructure including their GIS mapping and determine their DRR. Map the existing telecommunications related infrastructure and human resources and systems including their GIS mapping to assess their current level of DRR.			
3	Irrigation	Ensure effective implementation based on this scenario analysis develop a contingency plan.			

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SPECIFIC ACTION FOR TARGET (VISION – C) SUSTAINABLE DRR IN INFRASTRUCTURE

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
4	Transport Dept.	On the basis of this exercise, coordinate with the relevant agencies to ensure that they undertake corrective actions, especially for Group A and B districts. Map the existing Buses, Trucks, Lorries and JCBs/Earthmovers and related equipments available in the State along with agreements with selected vendors for quick deployment in case of a disaster events and link with IDRN.			
5	PRI Dept.	Identification and sustainable management of common property natural resources is added to the responsibilities of the PRIs through appropriate Government order.			
6	Technical Institution	Encourage industries to develop infrastructure continuity plan for ensuring back-up and regaining functionality of the infrastructure.			

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SPECIFIC ACTION FOR TARGET (VISION – C) SUSTAINABLE DRR IN INFRASTRUCTURE

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
7	Communi-cations	Develop a quality standards pertaining to telecommunications. Developing decision-making support tools like gap analysis, resource and analysis, critical assets' status mapping, strategic locations' infrastructure functioning mapping, information dissemination/communication flow trees and templates.			

SPECIFIC ACTION FOR TARGET (VISION – D) SUSTAINABLE DRR IN LIVELIHOOD

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
1	Irrigation Dept.	Initiate measures for repairs and de-siltation of canals and water bodies for resilient livelihoods.			
2	PRI Dept.	Modify the planning procedure guidelines/directives to include disaster and climate risk analysis as a mandatory step in the development of annual plans of department.			
3	Forest & Environment	Provision of agriculture implements and trade specific tools and equipment as part of recovery measures.			
4	Agriculture Dept.	Ensure timely provision of inputs and extension services for Group A and B districts and drought prone Group C districts so as to reduce the impact of the flood and drought events.			
5	PRD	Promotion of fishery, goatry and poultry as additional livelihood practices in rural areas. Undertake livestock breed improvement programme.			

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SPECIFIC ACTION FOR TARGET (VISION – D) SUSTAINABLE DRR IN LIVELIHOOD

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
6	Social Welfare Dept.	Sensitize (and promote new formation wherever is required) the existing cooperative community institutions / groups (like SHGs, Farmers Groups, Farmer Producer Organizations, Cluster Groups e.g. Poultry Groups, Fishery Collectives, Dairy Collectives, and such livelihood groups' collectives) on disaster risk analysis and measures for risk avoidance (alternative livelihood practices and / or design, relocation, structural strengthening), transfer (insurance), sharing (group activities), and claiming compensation.			

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SPECIFIC ACTION FOR TARGET (VISION – D) SUSTAINABLE DRR IN LIVELIHOOD

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
7	Health	Establish emergency services in Veterinary Hospitals (livestock and other domesticated and wild animals). Setup a mobile veterinary emergency response unit. Develop a 'State Animal DM Plan' on the lines of National DM Plan. Preparedness for taking measures (fodder camps, sourcing fodder from neighbouring States, promoting cultivation of fast maturing fodder varieties, and such) to ensure green fodder for livestock in times of disasters such as flood, drought, fire etc. in the State.			

SPECIFIC ACTION FOR TARGET (VISION – E) SUSTAINABLE DRR IN ULB

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
1	PWD/BRO	Undertake comprehensive analysis of flooding and water logging risks to urban areas, land-use patterns in these urban areas.			
2	PWD/DDMA	Undertake through concerned departments and agencies preparatory tasks like repairs of roads and related structures (Ghats), construction of Pontoon bridges, cleaning of drains, setting up of temporary barricades, exit routes identification			
3	USAC/GIS based Agencies	Ensure effective preparedness for earthquakes by: Undertaking detailed GIS based mapping of all the roads, lanes, bye-lanes, and public assets in all the urban areas and have these maps ready for effective response during earthquakes.			

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SPECIFIC ACTION FOR TARGET (VISION – E) SUSTAINABLE DRR IN ULB

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
4	Irrigation Dept.	Identify and prioritize high risk prone areas and develop scenario based inundation maps for planning, preparedness and response etc.			
5	Transport Dept.	Develop and/or finalize SOPs for traffic movement, and early warning and ensure the effective implementation of the various SOPs and guidelines through: Conducting regular mock drills; Developing a real-time online monitoring system, data of which openly available; Reviewing the SOPs and guidelines based on the usage till date.			
6	Social Welfare Dept.	Identification of areas/spots in all urban areas for disposal of human and animal dead bodies as well as disposal of the infrastructural debris after an earthquake event.			

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SPECIFIC ACTION FOR TARGET (VISION – E) SUSTAINABLE DRR IN ULB

Sl. No	Departments / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
7	Health Dept.	Provide emergency medical assistance to accident victims through deployment of ambulances equipped with Advanced Live Saving (ALS) and tagging of private hospitals with police stations for admitting of accident victims.			
8	Technical Institution	Set up 'Earthquake Safety Clinic' in all urban areas of state to provide solutions on structural measures and non-structural aspects related to earthquake safety.			
9	PRD	Form ward level Community Disaster Response Team (CDRT) comprising citizen council members, civil defence, resident welfare associations, service providers, and select community members for preparedness and response actions.			
10	UDD	Identify and / or construct safe spaces / shelters at appropriate places in all urban areas. Develop a deputation plan for the pre-monsoon clearance of drainage / sewage systems of all urban areas.			

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SPECIFIC ACTION FOR TARGET (VISION – E) SUSTAINABLE DRR IN ULB

Sl. No	Department s / Agencies	Specific Action	Time Line (2019-2022)	Time Line (2022-2026)	Time Line (2026-2030)
10	UDD	Identify and / or construct safe spaces / shelters at appropriate places in all urban areas. Develop a deputation plan for the pre-monsoon clearance of drainage / sewage systems of all urban areas.			
11	Fire Det.	Assessment of cities on the basis of this checklist to create a baseline for the DRR Cities Programme. Ensure appropriate preparedness actions for controlling fire events through the following: Develop a fire safety and evacuation plan for all public and private buildings, especially in critical institutions like Health care facilities. Purchase and deployment of appropriate firefighting equipment and fire tenders in all urban areas. Ensure availability of water supply and firefighting material in all buildings. Undertake fire safety drills and 'Fire Safety Week' twice in a year.			