KSDMA-UNICEF JOINT PROGRAMME

Mainstreaming Risk and Resilience

ANNUAL REPORT

2023

'Towards a safer state'

സുരക്ഷായനം

കേരള സംസ്ഥാന ദുരന്ത നിവാരണ അതോറിറ്റി (കെ.എസ്.ഡി.എം.എ)
Kerala State Disaster Management Authority (KSDMA)
ഒബ്സർവേറ്ററി കുന്ന്, വികാസ് ഭവൻ തപാൽ ഓഫീസ്
Observatory Hills, Vikas Bhavan P.O
തിരുവനന്തപുരം, കേരളം – 695033
Thiruvananthapuram, Kerala - 695033
ടെലിഫോൺ | Phone - 0471 2778855
ടോൾ ഫ്രീ ടെലിഫോൺ | Toll Free 1070
www.sdma.kerala.gov.in

Prelude

Focusing on three priorities of Sendai framework on Disaster risk reduction namely (i) Understanding disaster risk; (ii) Strengthening disaster risk governance to manage disaster risk; (iii) Investing in disaster reduction for resilience, KSDMA launched a project in partnership with UNICEF in 2019 titled "Mainstreaming Disaster risk resilience". The thrust areas of the project were Child Centered Risk Informed Planning, School Safety Programmes, Mainstreaming DRR activities into different departments through Virtual cadre for DM and Strengthening Inter Agency Group activities. As part of the project, a State Programme Coordinator is appointed at KSDMA jointly by UNICEF and KSDMA and is funded by the programme.

This report deals with the activities undertaken under the programme in the year 2023.

Contents

1. Activities

1.1 School safety activities – awareness programmes and Uschool app dissemination

Ensuring the safety of school children and educational institutions across Kerala remains a continuous and priority-driven process, especially in the context of increasing disaster risks associated with climate change. During the reporting period, the Directorate of General Education continued to play a proactive role in strengthening school safety mechanisms, in close coordination with the Kerala State Disaster Management Authority (KSDMA) and the District Disaster Management Authorities (DDMAs). Key activities included training and capacity-building programmes for teachers and officials, as well as systematic monitoring and quarterly reporting of school safety status to the National Disaster Management Authority (NDMA). In order to enhance the reach and effectiveness of school safety initiatives and to institutionalise resilience-building measures across all schools in the State, KSDMA, in association with UNICEF, developed a dedicated web-based application titled **'USchool'**, with technical support from the Centre for Development of Imaging Technology (CDIT) and data support from Kerala Infrastructure and Technology for Education (KITE). The USchool application is designed to facilitate the preparation of School Safety Plans / School Disaster Management Plans in accordance with the directives of the Hon'ble Supreme Court and the National Disaster Management Authority (NDMA) Guidelines on School Safety Policy.

The application features a simple and structured interface with guided inputs for focal point teachers and head teachers. Essential school-related data are pre-populated using KITE databases, while users are required to input additional details and upload key documents such as hazard maps and evacuation plans. Upon completion, the system generates a comprehensive School Safety Plan in portable document format (PDF), which can be printed and maintained at the school level for reference and implementation.

To ensure effective adoption of the USchool application, a district-level dissemination and training strategy was initiated. Training programmes were proposed to be conducted under the supervision of the respective DDMAs, in collaboration with the Deputy Directors of Education (DDEs). The State Programme Coordinator, KSDMA–UNICEF, has been designated as a key resource person to support these capacity-building efforts.

As part of institutional arrangement, the State Level Committee on School Safety, constituted vide Government Order GO(Rt) No. 271/2018/DMD dated 11.05.2018, continued to monitor the implementation of the School Safety Policy in the State. In this context, a high-level review meeting was convened by the Principal Secretary, Revenue and Disaster Management Department, at 10.30 AM on 01.06.2023 at the Secretariat to discuss school safety initiatives and the dissemination plan for the USchool application. The committee suggested some changes in the sections of USchool web application and also filling up of 'Uschool' app and generating the school DM plan/safety plan as a mandatory

requirement for all schools in the state and definite directive may be send to all schools by Education department.The dissemination plan for the Uschool app through DGE, DDEs and DDMAs was approved and KSDMA initiated the process. It was decided to transfer the USchool app to State Data Center after necessary IT auditing.

As part of the school safety awareness and Uschool webapp dissemination various programmes were conducted in different districts.

District-level Training Programme on School Safety
Palakkad District | 27 October 2023
The Palakkad District Disaster Management Authority (DDMA), in collaboration with the Kerala State Disaster Management Authority (KSDMA), organised two district-level training sessions for High School Focal Teachers in Palakkad District on 27 October 2023, focusing on "School Safety and the USchool App."

The morning session was conducted for schools under the Mannarkkad and Ottapalam Deputy Educational Officer (DEO) jurisdictions, while the afternoon session was organised for schools under the Palakkad DEO jurisdiction. The morning session was inaugurated by the Deputy Collector (Revenue), Shri Sachin Krishnan, KAS.

The sessions were led by Dr. Pratheesh C Mammen, State Programme Coordinator (UNICEF–KSDMA), who provided comprehensive inputs on disaster management terminologies, relevant government rules and regulations related to school safety, preparation of School Safety Plans, and the utilisation of the USchool App for developing and documenting these plans.

The programme concluded with active and enthusiastic discussions, during which participating teachers shared their insights and experiences, contributing to enhanced understanding and peer learning on school safety and disaster preparedness. A total of 103 particiapnts attended the session.

Kasaragod District
Day 1 – Kasargode | 18 December 2023
A district-level training programme on school safety was conducted for Headmasters of Government, Aided, and Unaided schools under the Kasaragod Educational District on 18th December 2023 as part of the dissemination of school safety initiatives.The programme was officially inaugurated by the Honourable Deputy Director of Education (DDE), Shri Nandikeshan N., and was presided over by the District Educational Officer (DEO), Kasaragod Educational District. The sessions were conducted in an informative and interactive manner by Dr. Prateesh C. Mammen.

The first session was held from 10:00 AM to 12:30 PM and was attended by the Headmasters of all Government, Aided, and Unaided schools under the Kasaragod Educational District. The second session commenced at 2:00 PM and concluded at 4:30 PM at the same venue. The Honourable DDE was present throughout both sessions, providing guidance and support, along with the Assistant Educational Officer (AEO), Kasaragod Educational District. This session was attended by the Headmasters of all Government, Aided, and Unaided Lower and Upper Primary Schools under the Kasaragod Educational Sub-district.

The programme contributed to enhancing awareness and capacity among school heads regarding school safety measures and disaster preparedness, supporting the broader objective of strengthening resilience in educational institutions. 146 head teachers attended the programme.

District-level Training Programme on School Safety
Day 2 – Kanhangad | 19 December 2023
19th December 2023, the second day of the district-level training programme on school safety was held at the Mini Civil Station Conference Hall, Kanhangad. The morning session was inaugurated with a welcome address by the District Educational Officer (DEO), Kanhangad, Ms. Baladevi, KAS, who welcomed Dr. Prateesh C. Mammen to conduct the training on behalf of the District Educational Department. The morning session commenced at 10:00 AM and concluded at 12:30 PM. It was attended by the Headmasters of all Government, Aided, and Unaided High Schools under the Kanhangad Educational District Office.

The afternoon session was facilitated by the Assistant Educational Officer (AEO), Hosdurg, Shri Gangadharan P., who welcomed the Deputy Director of Education (DDE), representatives from KSDMA and DDMA Kasaragod, and Dr. Prateesh C. Mammen. The session was conducted from 2:00 PM to 4:30 PM and was attended by the Headmasters of all Government, Aided, and Unaided Lower Primary and Upper Primary Schools under the Hosdurg Educational Sub-district Office.

The training sessions on Day 2 further strengthened the understanding of school safety planning and disaster preparedness among school heads, contributing to the effective implementation of school safety initiatives at the district level. A total of 147 headteachers attended the programme.

Ernakulam District | 03 August 2023
The District Disaster Management Authority (DDMA), Ernakulam, organised an online training programme on 03 August 2023 for the preparation of School Safety Plans through the USchool App, covering 550 schools across the district.

Shri N. S. K. Umesh, IAS, District Collector, Ernakulam, addressed the participants and highlighted the importance of school safety and the effective utilisation of the USchool App in strengthening disaster preparedness within educational institutions.

The programme witnessed the participation of Smt. Usha Bindumol, Deputy Collector (Disaster Management), Deputy Director of Education, District Educational Officers, Assistant Educational Officers, officials from the Higher Secondary Education Department, and Headmistresses from schools across the district.

The technical session was facilitated by Dr. Pratheesh C. Mammen, Programme Coordinator (UNICEF–KSDMA), who elaborated on the significance of school safety initiatives and provided detailed guidance on the preparation, updating, and documentation of School Safety Plans using the USchool App. The session covered the required data inputs, documents, and resource mapping to be uploaded in the application.

Following the training, participating schools initiated the process of logging into the USchool App and commenced the preparation of School Safety Plans and resource mapping exercises. A total of 550 officers participated in the online training programme.

1.2 Virtual Cadre Training Programme

The Virtual Cadre Training Programme is a flagship capacity-building initiative conceptualised by the Kerala State Disaster Management Authority (KSDMA) to systematically integrate Disaster Risk Reduction (DRR) practices across multiple sectoral domains of the Government. The programme aims to enhance departmental competencies not only in disaster response but also in disaster mitigation and preparedness, thereby mainstreaming disaster management into governance and public administration.

The programme was first conceptualised in 2018 with technical support from UNDP, and 26 Government Departments were selected for participation. The vision of the Virtual Cadre Training Programme aligns with the National Disaster Management Plan and incorporates the principles of the Sustainable Development Goals (SDGs), particularly those related to climate action and resilience building. It represents the first initiative of its kind in the State to embed Disaster Risk Reduction practices into departmental policy formulation and planning processes.

Under this programme, each participating department constitutes a Virtual Cadre comprising 7 to 15 nominated representatives. These representatives undergo incremental and structured training on disaster management policies, legal frameworks, institutional mechanisms, and global best practices. The training modules focus on critical aspects of emergency management, including Standard Operating Procedures (SOPs), emergency response systems, early warning mechanisms, and inter-departmental coordination. The programme also facilitates the preparation of Departmental Disaster Management Plans, enabling departments to critically examine their sectoral development policies through a disaster risk and climate change lens. Through the Virtual Cadre Training Programme, participating departments have significantly enhanced their awareness, institutional readiness, and operational capacity, enabling them

to play a proactive and coordinated role in disaster risk reduction and climate change adaptation in the State.

Evolution and Implementation of the Virtual Cadre Programme

The Virtual Cadre Programme was first operationalised in 2018, with the Land Revenue Department identified as the first department to undergo the training. Subsequently, 26 Government Departments were nominated for inclusion under the programme.

During the initial phase of implementation, each department was required to nominate 15 senior officials with a minimum of 20 years of service experience, drawn from across the State, to participate in the Virtual Cadre Training Programme. However, operational challenges—particularly the frequent transfer of officials—necessitated a revision of the programme design to ensure continuity and sustained institutional capacity.

Accordingly, the Government issued G.O.(Rt) No. 902/2022/DMD dated 24 December 2022 (Annexure), revising the nomination criteria. As per the revised Government Order, each department is now required to nominate seven officials holding supervisory-level positions, who will serve as Virtual Cadre Nominees for a fixed tenure of five years. These nominated officials are to receive incremental and structured training in key disaster management domains, including response and recovery mechanisms, Standard Operating Procedures (SOPs), Incident Command System (ICS), and other department-specific disaster risk management practices.

Once fully operational, the Virtual Cadre is expected to create a pool of trained Disaster Management Champions within each department. These officials will be equipped to prepare and periodically update Departmental Disaster Management Plans and support their respective departments in mitigating disaster risks and responding effectively to emergencies.

In line with the NDMA and SDMA Guidelines under Section 38(2)(g) of the Disaster Management Act, it is mandatory for all departments to prepare Departmental Disaster Management Plans and integrate preparedness and mitigation measures into all development processes. However, in practice, disaster management planning is often overlooked or treated as a post-planning activity, which has been found to be ineffective during real disaster scenarios. The Virtual Cadre Programme was conceptualised specifically to address this gap by mainstreaming Disaster Risk Reduction (DRR) into sectoral development planning, thereby strengthening institutional resilience.

The programme's vision is closely aligned with the Sustainable Development Goals (SDGs), particularly the objective of integrating DRR practices into ongoing development paradigms and climate-resilient planning processes.

Since 2018, all 26 nominated departments have been formally included under the Virtual Cadre Programme. At present, 15 departments have undergone at least one round of Virtual Cadre training, while 11 departments are yet to receive any formal training. Based on insights gained from programme implementation and the State's experiences during the floods of 2018 and 2019, as well as the COVID-19 pandemic, the training strategy has been revised.

For the current year, the 26 departments have been categorised into two groups:

- 15 departments that have already received training and will undergo a refresher training programme, and
- 11 departments that have not received any prior training and will undergo basic Virtual Cadre training.

Separate Training Needs Assessments (TNAs) have been developed for each group to ensure that the training content is tailored to their respective levels of preparedness and institutional requirements.

Inception Meeting for Restarting Virtual Cadre Trainings

As part of the process to resume the Virtual Cadre Training Programme, an Inception Meeting was organised on 28 February 2023 by the Kerala State Disaster Management Authority (KSDMA) in collaboration with SEEDS Technical Services, with support from UNICEF.

The inception meeting was conducted in two separate batches, corresponding to the two categories of participating departments: (i) Advance Batch - departments that had already received Virtual Cadre training (15 departments), and (ii) Basic Batch - departments that had not received any prior training (11 departments).

Separate inception sessions were necessitated due to the differing levels of familiarity with the programme among the two groups. While the advanced batch departments had already been initiated into the Virtual Cadre framework and were aware of programme expectations, the basic batch departments were newly inducted into the programme. As the training modules were designed differently for each group, separate inception meetings were essential to provide appropriate orientation.

In addition, two distinct Training Needs Assessment (TNA) tools were administered during the inception meeting—one for the basic batch and another for the advanced batch—to ensure that the training content and methodology were aligned with the specific capacity-building requirements of each group.

I. Session I – Inception Meeting Report
Basic Training Batch (11 Departments)
Time: 11:00 AM to 12:00 Noon

The first session of the Inception Meeting was conducted for 11 departments that had not previously participated in the Virtual Cadre Training Programme. As these departments were newly inducted into the programme, the session placed special emphasis on orienting participants to the objectives, structure, and expectations of the Virtual Cadre initiative.

The session was jointly organised by the Kerala State Disaster Management Authority (KSDMA) and SEEDS Technical Services, with support from UNICEF.

Agenda of the Meeting

- To introduce the Virtual Cadre officials to the relevant Government Order (G.O.) pertaining to the constitution of the Virtual Cadre and to explain the recent amendments made to the G.O.
- To share the Training Needs Assessment (TNA) Tool with participants and obtain their feedback for integration into the training modules.
- To communicate the expectations from participants with respect to their role and engagement in the Virtual Cadre Training Programme.

The inception meeting for the basic batch commenced with a welcome address by Dr. Pratheesh C. Mammen, who welcomed the participants representing 11 departments. A total of 52 participants from these departments attended the meeting.

Dr. Sekhar L. Kuriakose delivered the opening remarks, reiterating the importance of the Virtual Cadre Programme in building a disaster-resilient Kerala. He highlighted the critical role of Virtual Cadre Nominees in strengthening institutional preparedness and explained the revisions introduced through the latest Government Order, along with the rationale for these changes. Ms. Divya Gupta from SEEDS Technical Services made a detailed presentation outlining SEEDS' work in the areas of disaster mitigation and Disaster Risk Reduction (DRR). She briefed the participants on the background and experience of the SEEDS organisation, its ongoing engagements, and provided an overview of the proposed training modules, including expectations from the training programme.
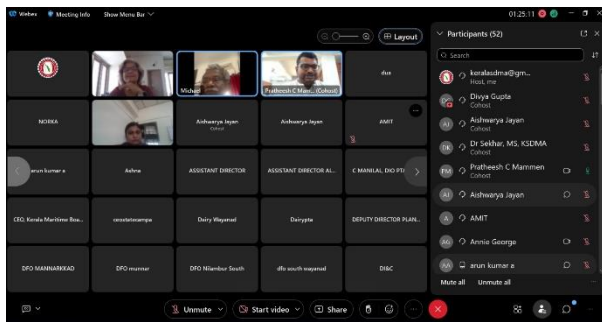
The programme trainers, Ms. Annie George and Mr. Michael Vedha Siromani, were also present and interacted with the participants. They elaborated on the significance of the Virtual Cadre Programme and the role of the nominees in preparing and strengthening Departmental Disaster Management Plans.

Participants raised several queries related to the training structure, expectations, and departmental roles, which were addressed and clarified by officials from KSDMA and the training partners. Specific concerns were expressed regarding the responsibilities of departments in the preparation of Disaster Management Plans, which were clarified by Dr. Pratheesh C. Mammen and Ms. Divya Gupta.

Additional issues raised included scheduling challenges due to the financial year-end and potential clashes with training dates, which were addressed by SEEDS Technical Services. Departments such as NORKA expressed concerns regarding the proposed training venue, while the Assistant Director, Dairy Development Department, sought clarification on the training content and its linkage to the preparation of Departmental Disaster Management Plans. The meeting concluded with closing remarks by Dr.

Pratheesh C. Mammen, who expressed appreciation for the active participation and constructive engagement of all departments.

II. Session II – Inception Meeting Report
Refresher / Advanced Training Batch (15 Departments)
Time: 03:00 PM to 04:00 PM

The second session of the Inception Meeting was conducted for the Refresher / Advanced Training Batch, comprising 15 departments that had previously participated in the Virtual Cadre Training Programme. Due to the COVID-19 pandemic, some of these departments had received training in online mode, while others had undergone in-person training during earlier phases of the programme.
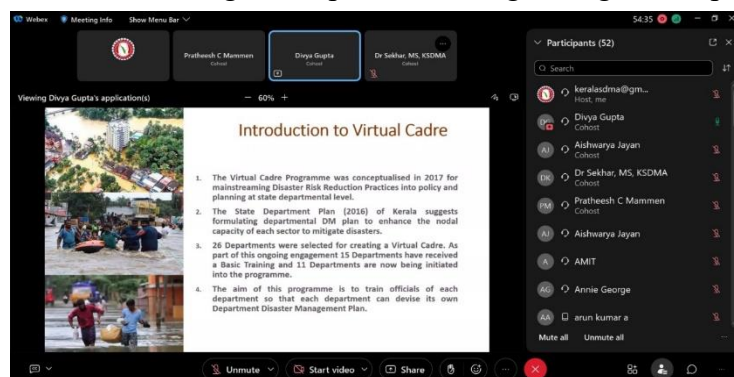
For the current year, the primary focus of the training programme for this batch is on strengthening the capacity of nominated officials in drafting and updating Departmental Disaster Management Plans in line with revised guidelines and sector-specific requirements.

Agenda of the Meeting

- To revisit the concept and objectives of the Virtual Cadre Training Programme and recapture experiences and learnings from previous training sessions.
- To communicate expectations from the participants for the forthcoming training programme and to provide an overview of the modules planned for the Advanced Training Batch.
- To discuss the revisions introduced in the Government Order (G.O.) related to the constitution and functioning of the Virtual Cadre.
- To share the Training Needs Assessment (TNA) Tool with the participants and obtain feedback for integration into the advanced training modules.

The inception meeting for the Refresher / Advanced Training Batch commenced with a welcome address by Dr. Pratheesh C. Mammen, who welcomed participants representing 15 departments. A total of 29 participants from these departments attended the session.
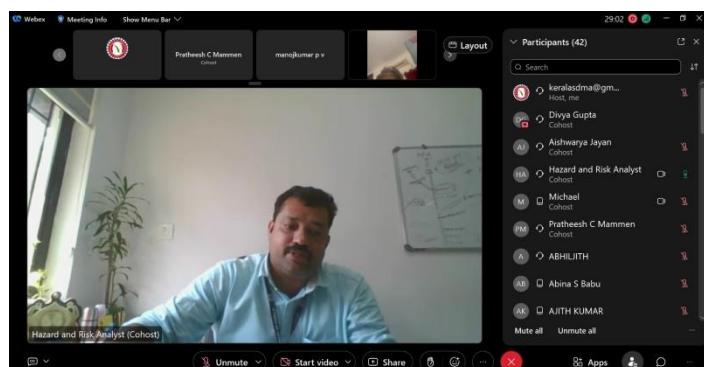
The opening remarks were delivered by Mr. Pradeep G. S., Hazard and Risk Analyst, KSDMA, who reiterated the importance of the Virtual Cadre Programme in building a disaster-resilient Kerala. He explained the critical role of Virtual Cadre Nominees in strengthening departmental preparedness and highlighted the revisions introduced through the latest Government Order, along with the rationale for these changes.

Ms. Divya Gupta from SEEDS Technical Services made a detailed presentation on SEEDS' work in disaster mitigation and Disaster Risk Reduction (DRR). She provided an overview of the organisation's background and ongoing engagements and explained the proposed training modules, outlining expectations from the participants for the forthcoming training programme.

The programme trainers, Ms. Annie George and Mr. Michael Vedha Siromani, were present and interacted with the participants. They elaborated on the responsibilities of Virtual Cadre Nominees in the preparation of Departmental Disaster Management Plans (DDMPs) and highlighted that the current year's training would primarily focus on a hands-on, write-shop–oriented approach to assist departments in drafting their DDMPs. The trainers also outlined the expectations from participants and advised them to bring any existing emergency protocols or plans of their respective departments to the training sessions to facilitate effective drafting and contextualisation of the DDMPs.

Participants raised several queries related to the training structure, timelines, and departmental roles, which were addressed by representatives from KSDMA and the training partners. Concerns were also raised regarding the scheduling of training sessions towards the end of the financial year, when departmental workloads are typically high. These concerns were duly noted by KSDMA and SEEDS Technical Services.

Overall, the participants demonstrated a proactive and enthusiastic approach towards the programme, which was appreciated by the organising team. Clarifications regarding the specific roles of departments in developing Disaster Management Plans were provided by Dr. Pratheesh C. Mammen, Ms. Divya Gupta, and the programme trainers.

The session concluded with closing remarks by Dr. Pratheesh C. Mammen, who expressed gratitude to all departments for their active participation. He also requested departments to share updated lists of nominees in case of any changes to previously nominated Virtual Cadre officials and thanked all participants and trainers for their engagement and support.

Training Needs Assessment (TNA)

A Training Needs Assessment (TNA) is a systematic process used to determine whether a training need exists and to identify the specific nature of training required to bridge existing capacity gaps. It assesses the disparity between desired performance outcomes and current capacities, thereby enabling targeted and effective training interventions. A TNA captures the present levels of knowledge, skills, and competencies through methods such as surveys, interviews, observations, and analysis of secondary data. The gaps identified between the current and desired states often indicate underlying challenges that can be effectively addressed through structured capacity-building initiatives.
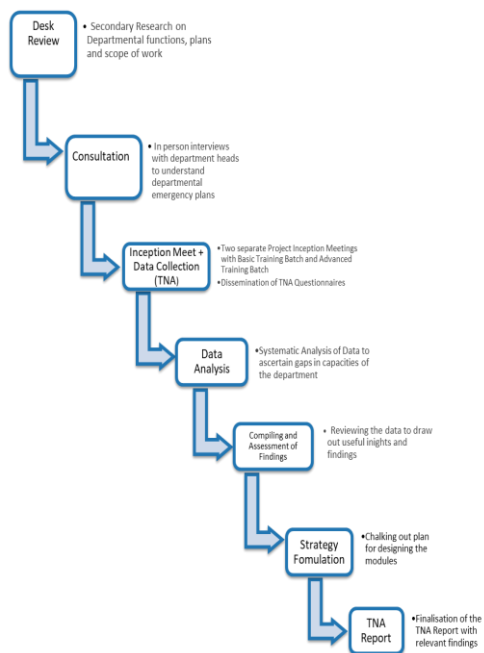
In the context of the Virtual Cadre Training Programme, a comprehensive Training Needs Assessment was conducted for the Virtual Cadre nominees from all 26 participating departments. The findings of the TNA guided the development of differentiated training modules for the Basic and Refresher/Advanced training batches, ensuring that the training content was tailored to varying levels of prior exposure, departmental mandates, and functional responsibilities of the nominees.

The TNA questionnaires were circulated to all Virtual Cadre nominees immediately after the inception meeting. To ensure wide coverage and ease of participation, the questionnaires were shared through email and WhatsApp. Considering the widespread familiarity with Google Forms across Government departments in Kerala, the platform was selected as an efficient and accessible tool for data collection.

To further enhance participation and inclusivity, the TNA tool was made available in both Malayalam and English. For effective analysis and meaningful outcomes, a target response rate of 50–60 per cent was set for both the Basic and Refresher/Advanced training batches. The responses received were analysed to identify capacity gaps and to fine-tune the training modules in alignment with departmental requirements.

Basic batch departments

1. Diary Development Department
2. Department of Higher Education
3. Department of Industries and Commerce
4. NORKA Roots
5. Social Justice Department
6. I&PRD

7. Ports Department
8. Public Works Department
9. Dept. of Local Self-Governance (Urban Affairs)
10. Department of Forest and Wildlife
11. Department of Collegiate Education

Common Training Needs Identified – Basic Departments

The Training Needs Assessment (TNA) conducted for departments newly inducted into the Virtual Cadre Training Programme revealed a set of common capacity gaps across Basic Training Departments. These needs reflect foundational requirements for effectively mainstreaming Disaster Risk Reduction (DRR) and disaster management practices within departmental functioning.

The key training needs identified are summarised below:

1. **Basic Legal and Policy Framework on Disaster Management**
   Departments expressed the need for foundational understanding of the Disaster Management Act, along with relevant SDMA and NDMA guidelines, to enable compliance with statutory mandates and informed decision-making.

2. **Mapping of Closest Emergency Operation Centres**
   There was a clear requirement for training on identifying and mapping the nearest District Emergency Operations Centre (DEOC) / State Emergency Operations Centre (SEOC) to strengthen coordination during emergencies.

3. **Coordination with Stakeholders for DRR Activities**
   Departments highlighted the need to enhance coordination mechanisms with NGOs, local self-government institutions, and Community-Based Organisations (CBOs) for effective DRR planning and implementation.

Common Training Needs
Basic Departments

NEED 1
Basic Level knowledge on DM Act, SDMA/NDMA guidelines

NEED 2
Mapping of closest DEOC / SEOC

NEED 3
Co-ordination with NGOs, local bodies, CBO's for DRR activities

NEED 4
Development of Departmental DM plan

NEED 5
Formulation of DM Cycle and detailed SOPs

NEED 6
In-depth knowledge of SDRF and NDRF Norms

NEED 7
Introduction to various international and state level DRR practices relevant to Departments

4. **Development of Departmental Disaster Management Plans**

   A major training requirement was support in developing Departmental Disaster Management (DM) Plans, including understanding structure, components, and integration with departmental mandates.

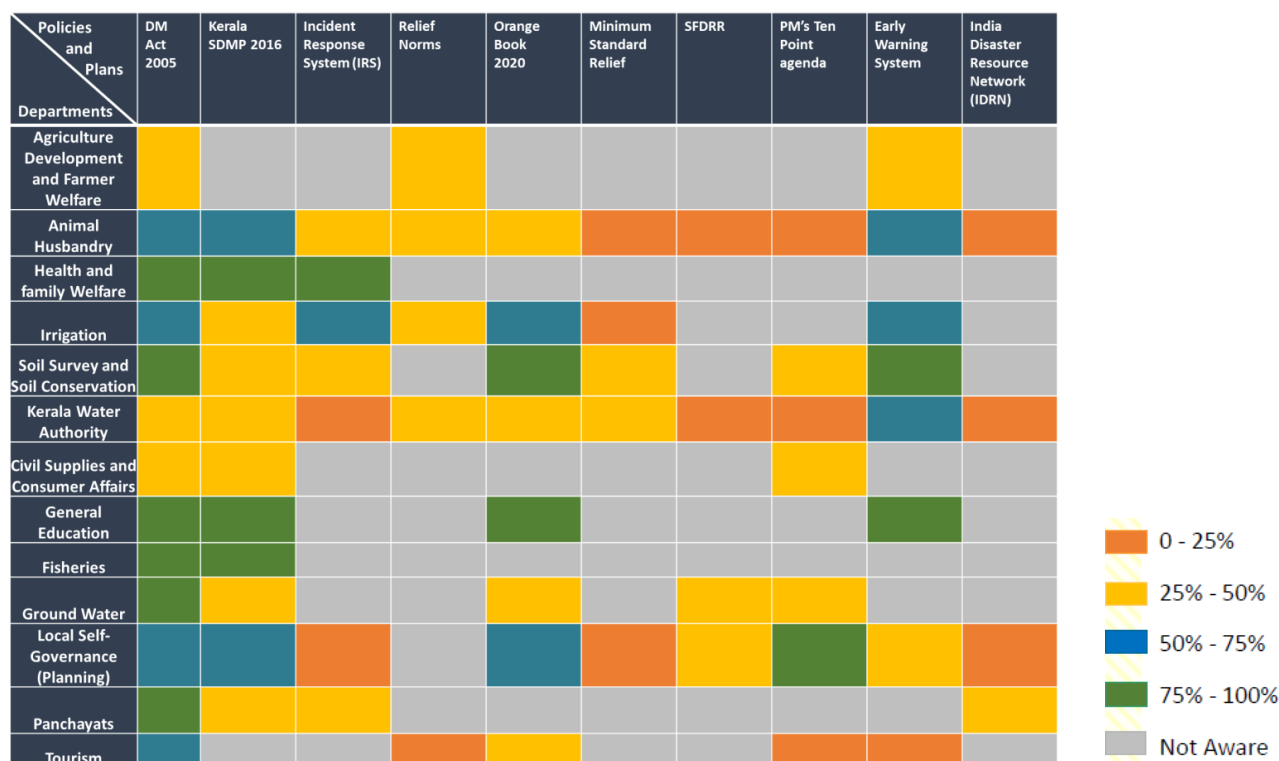5. **Formulation of Disaster Management Cycle and Standard Operating Procedures (SOPs)**

   Participants identified the need for clarity on the Disaster Management Cycle (mitigation, preparedness, response, and recovery) and the preparation of detailed SOPs aligned with departmental roles.

6. **Understanding SDRF and NDRF Norms**

   Departments required in-depth knowledge of State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF) norms, including eligibility, procedures, and documentation requirements.

7. **Exposure to National and International DRR Best Practices**

   There was a strong demand for exposure to national and international DRR frameworks, standards, and best practices, to enable departments to align their policies and programmes with global resilience approaches.

Departments \ Policies and Plans	DM Act 2005	Kerala SDMP 2016	Incident Response System (IRS)	Relief Norms	Orange Book 2020	Minimum Standard Relief	SFDRR	PM's Ten Point agenda	Early Warning System	India Disaster Resource Network (IDRN)
Agriculture Development and Farmer Welfare	25%–50%	Not Aware	Not Aware	25%–50%	Not Aware	Not Aware	Not Aware	Not Aware	25%–50%	Not Aware
Animal Husbandry	50%–75%	50%–75%	25%–50%	25%–50%	25%–50%	0–25%	Not Aware	Not Aware	50%–75%	0–25%
Health and family Welfare	75%–100%	75%–100%	75%–100%	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware
Irrigation	50%–75%	25%–50%	50%–75%	25%–50%	50%–75%	25%–50%	Not Aware	Not Aware	50%–75%	Not Aware
Soil Survey and Soil Conservation	25%–50%	25%–50%	25%–50%	Not Aware	75%–100%	25%–50%	Not Aware	Not Aware	75%–100%	Not Aware
Kerala Water Authority	25%–50%	25%–50%	0–25%	25%–50%	25%–50%	25%–50%	0–25%	25%–50%	50%–75%	0–25%
Civil Supplies and Consumer Affairs	25%–50%	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware
General Education	75%–100%	75%–100%	Not Aware	Not Aware	75%–100%	Not Aware	Not Aware	Not Aware	75%–100%	Not Aware
Fisheries	75%–100%	75%–100%	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware
Ground Water	75%–100%	25%–50%	Not Aware	Not Aware	25%–50%	Not Aware	25%–50%	25%–50%	Not Aware	Not Aware
Local Self-Governance (Planning)	50%–75%	50%–75%	0–25%	Not Aware	50%–75%	0–25%	25%–50%	75%–100%	25%–50%	0–25%
Panchayats	75%–100%	25%–50%	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	Not Aware	25%–50%	25%–50%
Tourism	Not Aware	Not Aware	Not Aware	0–25%	25%–50%	Not Aware	Not Aware	0–25%	0–25%	Not Aware

Legend:
- 0 – 25%
- 25% – 50%
- 50% – 75%
- 75% – 100%
- Not Aware

These identified training needs formed the basis for designing the Basic Training curriculum under the Virtual Cadre Programme. Addressing these gaps is expected to enhance departmental preparedness, improve inter-agency coordination, and strengthen the institutional capacity of departments to contribute effectively to disaster risk reduction and climate-resilient development.
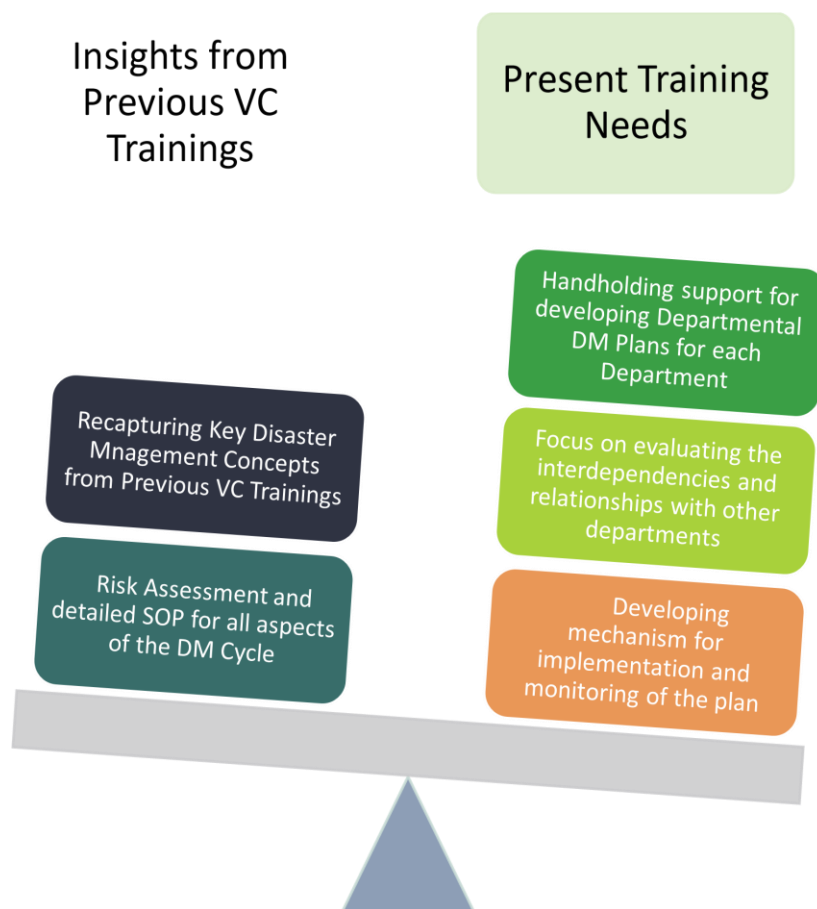
Training Needs Identified – Advanced / Refresher Training Batch

The specific training needs of the 15 departments included in the Advanced / Refresher Training Batch were comprehensively documented during earlier Virtual Cadre training sessions. These assessments continue to inform the design and focus of the current year's Virtual Cadre Training Programme.

For the present training cycle, the Advanced / Refresher sessions are designed as brief and focused modules, with primary emphasis on drafting and strengthening Departmental Disaster Management (DM) Plans. While the foundational concepts have been covered in previous trainings, the current modules aim to consolidate knowledge and translate it into practical, department-specific planning outputs.

A key training need identified through the Training Needs Assessment is the requirement for enhanced clarity on Early Warning Communication systems. The assessment revealed gaps in understanding warning signals, protocols, and the effective application of previously acquired knowledge and skills in early warning dissemination and response mechanisms. Accordingly, focused inputs on early warning communication have been integrated into the training design.

Further, in view of the revised Government Order on the Virtual Cadre Programme, which reduced the number of nominated officials per department from 15 to 7, several departments have inducted new Virtual Cadre Nominees who did not participate in earlier training programmes. This transition has resulted in varying levels of knowledge and exposure among Virtual Cadre officials within the same departments.

Insights from Previous VC Trainings

Present Training Needs

Recapturing Key Disaster Mnagement Concepts from Previous VC Trainings

Risk Assessment and detailed SOP for all aspects of the DM Cycle

Handholding support for developing Departmental DM Plans for each Department

Focus on evaluating the interdependencies and relationships with other departments

Developing mechanism for implementation and monitoring of the plan

To address these gaps, the Advanced / Refresher Training Programme incorporates a brief recap of earlier training content, key lessons learned, and a review of progress achieved so far. This approach is intended to ensure a common understanding among all participants and to enable effective collaboration in the preparation and finalisation of Departmental Disaster Management Plans.

Virtual Cadre Training Programme – Basic Training Batch 1 (2023)

In 2023, the Kerala State Disaster Management Authority (KSDMA), with support from SEEDS Technical Services and UNICEF, conducted a two-day Basic Training Programme for Virtual Cadre Officials on 27–28 November 2023 at Classic Sarovar Portico, Thiruvananthapuram. The training was attended by 20 officials from four departments—Public Works Department, Kerala Maritime Board, NORKA Roots, and the Department of Industries and Commerce.

The programme aimed to introduce core concepts of disaster management and their relevance to departmental functions. Facilitated by subject experts, the training focused on building foundational knowledge to support disaster preparedness and risk reduction within departments. The programme marked the successful completion of the first batch of the Basic Training, covering four of the eleven departments identified for this category. The remaining Basic and Advanced/Refresher Training batches will be conducted in subsequent sessions.

Day 1: 27 November 2023

The first day of the training commenced with a welcome address by Dr Midhila, who greeted participants from the four departments and introduced the KSDMA and SEEDS Technical Services resource persons—Ms Annie George, Ms Divya Gupta, Mr Joe John George, and Dr Pratheesh C Mammen. The programme was formally inaugurated by Dr Sekhar L Kuriakose, who highlighted the significance of Virtual Cadre Trainings and underscored the importance of inter-departmental coordination in effective disaster response.

An ice-breaking session facilitated by Dr Pratheesh C Mammen followed, during which participants shared their personal and professional experiences related to disasters and discussed the challenges encountered in their respective departments.

Session 1: Introduction to Disaster Management

Ms Annie George facilitated the opening session, introducing the basic concepts of Disaster Management, including hazards and disasters, types of hazards, and the Disaster Management cycle.

Special emphasis was placed on Kerala's multi-dimensional vulnerabilities—social, economic, emotional, and psychological. The session covered preparedness, response, and recovery, and encouraged participants to reflect on emergency mechanisms within their respective departments through interactive discussions.

Session 2: Institutional Mechanisms, Governance, and Frameworks

Mr Joe John George provided an overview of the evolution of Disaster Risk Reduction (DRR), tracing developments from the International Decade for Natural Disaster Reduction (IDNDR) to the Sendai Framework. He explained international frameworks such as the Sendai Framework, Sustainable Development Goals, and the Paris Agreement, highlighting their relevance to disaster governance. The session also detailed national and state-level institutional mechanisms, existing policies, and plans, and introduced the Indian Disaster Resource Network (IDRN), encouraging departments to update their resource information.

Session 3: Hazard Vulnerability Profile of Kerala and Early Warning Systems

Mr Pradeep GS, Hazard and Risk Analyst, KSDMA, presented Kerala's hazard vulnerability profile and early warning systems. The session focused on state-specific hazards, associated vulnerabilities, and the importance of timely and accurate communication during disasters. Real-life examples from disaster response operations made the session engaging and practical.

Session 4: Activity on Impact Assessment and Resource Mapping

An interactive activity on impact assessment and resource mapping was initiated, wherein departments identified major hazards affecting their sectors, past impacts, response mechanisms, and available resources. Departments shared sector-specific challenges, including cyclone impacts on ports, evacuation challenges faced by NORKA Roots during international crises, infrastructure-related constraints highlighted by the Public Works Department, and supply chain and industrial gaps identified by the

Department of Industries and Commerce. The discussions also brought out inter-departmental perspectives and conflicts, underscoring the need for coordinated planning and long-term risk-informed development.

The group discussion which followed the sessions focused on identifying the major hazards and disasters faced by each department in recent years, examining the key issues and challenges arising from these events, and analyzing how the respective departments responded to and managed the disaster situations.

During recent years, multiple departments experienced significant impacts from natural hazards, public health emergencies, and complex humanitarian crises, highlighting the multi-dimensional nature of disaster risk in Kerala. Events such as Cyclone Ockhi (2017), the 2018 floods, the COVID-19 pandemic, and international conflicts necessitating evacuation and repatriation of Keralites placed considerable operational and institutional demands on government departments.

The Kerala Maritime Board faced major disruptions to port operations due to cyclones and floods, resulting in damage to berthing facilities and critical equipment. The Public Works Department encountered extensive infrastructure damage, including failures of roads, bridges, retaining walls, and public buildings, underscoring the need for climate-resilient design and maintenance practices. The Department of Industries and Commerce witnessed severe impacts on MSMEs, with floods and pandemic-related lockdowns leading to infrastructure losses, labour shortages, and breakdowns in supply and value chains. NORKA Roots played a crucial role in managing international evacuations and humanitarian responses during global conflicts and health emergencies; however, the absence of reliable, state-specific data on Keralites abroad emerged as a critical operational challenge.

These experiences collectively revealed key capacity gaps across departments, including limitations in resilient infrastructure planning, early warning interpretation, inter-departmental coordination, data management, and continuity of services during crises. The insights generated through departmental reflections and training discussions have informed the virtual cadre training programme, enabling targeted capacity-building interventions focused on preparedness, early warning communication, and the development of Departmental DM Plans. This approach aims to strengthen institutional resilience and ensure more coordinated, effective responses in future disaster risks.

Day 2: 28 November 2023

The second day of the training commenced with a recap of the key learnings from Day 1. Participants actively shared their experiences, perspectives, and the challenges faced by their respective departments in managing disaster-related situations. The session revisited the disaster management process and reinforced core concepts such as hazards, vulnerability, risk, preparedness, response, and rehabilitation, helping participants consolidate their understanding and link theoretical concepts with practical departmental experiences.

Session 4: Mainstreaming Disaster Management

Ms. Annie George introduced participants to the Hon'ble Prime Minister's 10-Point Agenda, emphasizing the integration of Disaster Risk Reduction (DRR) principles into all development sectors. She highlighted how development initiatives can both mitigate and create risks, underscoring the need for risk-informed planning that addresses short- and long-term challenges. The session showcased good practices in DRR, including multi-hazard resilient housing initiatives in post-tsunami Kerala and adaptive construction practices such as raised foundations in flood-prone areas, drawing from both traditional knowledge systems and contemporary innovations.

Session 5: Introduction to the Departmental DM Plan Template

Mr. Vijeesh familiarized participants with the Departmental Disaster Management (DM) Plan template developed by KSDMA, outlining its legal basis under the Disaster Management Act, 2005, and NDMA guidelines. He stressed the statutory requirement for each department to prepare, review, and annually update its DM Plan based on its specific hazard profile and vulnerabilities. Key components of the plan, potential implementation challenges, and practical solutions were discussed. The session also covered financial provisions for prevention, mitigation, preparedness, and capacity building through departmental budgets and Centrally Sponsored Schemes. Departments were advised to prepare concise, original descriptions of their functions, assets, and logistics, avoiding duplication from existing documents.

Session 6: Preparedness, Response, and Recovery

During this session, the disaster management phases—preparedness, response, recovery, and planning—and contextualized them to the distinct roles and responsibilities of different departments. The session linked these phases directly to the preparation of the Departmental DM Plan, enabling participants to translate conceptual understanding into actionable planning frameworks.

The training concluded with a discussion on the way forward, outlining departmental responsibilities and timelines for drafting Departmental Disaster Management Plans. Participants expressed strong commitment to initiating and completing their plans, noting that the training enhanced their understanding of disaster risk management in the current climate and development context. The programme concluded with a vote of thanks by Dr. Midhila Mallika and Ms. Divya Gupta, acknowledging the active participation and engagement of all departments and resource persons.

Child Friendly space (CFS) in multipurpose cyclone shelter

A Child Friendly Space (CFS) is a designated area created to provide a safe, secure, and nurturing environment for children affected by disasters or conflict. It addresses children's needs for protection, psychosocial care, emotional expression, and participation, while enabling them to regain a sense of normalcy during periods of displacement. CFS also function as transitional structures that link emergency relief with early recovery and longer-term child protection and development systems.

The development of the *Child Friendly Spaces in Multi-Purpose Cyclone Shelters* document was shaped by Kerala's repeated exposure to floods, cyclones, landslides, and public health emergencies. Post-disaster reviews indicated that while physical shelter and relief services were generally well addressed, children's psychosocial well-being, safety, and developmental continuity required a more structured and standardised approach. In response, Kerala State Disaster Management Authority, in consultation with district disaster management authorities and relevant sectoral departments, identified the absence of state-specific design and operational guidance for child-centred spaces within disaster shelters as a critical gap.

To address this need, KSDMA initiated a multi-stage consultative process in collaboration with UNICEF, with the objective of contextualising global child protection and humanitarian standards to Kerala's disaster risk profile and institutional framework. A central element of this process was the examination of Multi-Purpose Cyclone Shelters (MPCS), which form a key component of the state's coastal disaster preparedness infrastructure.

At the time of document preparation, 17 MPCS had been constructed across the coastal regions of nine districts—Thiruvananthapuram, Kollam, Alappuzha, Ernakulam, Thrissur, Malappuram, Kozhikode, Kannur, and Kasaragod. These shelters are designed to serve dual purposes, functioning as community infrastructure during normal times and as emergency shelters during disasters. Of the 17 MPCS, ten are

located on revenue land, while seven are situated on educational land, typically adjacent to school buildings, offering opportunities for shared use of facilities and services, particularly for children.

As part of the guideline development process, seven MPCS were visited to assess the feasibility of establishing Child Friendly Spaces within existing shelter designs. As per the direction from Member Secretary, a team consisting of HA-Psychology, Architect, Programme Coordinator-UNICEF was constituted to explore and study the feasibility of setting up child friendly spaces in Multi-Purpose Cyclone Shelters (MPCS) across Kerala. These site visits focused on understanding spatial availability, safety and visibility, accessibility for children of different age groups, proximity to sanitation facilities, and potential risks within the shelter environment. Three of the shelters visited were located on educational land in Alappuzha and Kannur districts, where their close association with school buildings provided valuable insights into how CFS could be integrated with educational and child-focused infrastructure during both emergency and non-emergency periods.

Observations from these visits were documented and analysed alongside lessons from recent disaster response operations in Kerala, particularly experiences related to shelter management and child-focused interventions. The process also incorporated a review of national policy and legal frameworks, including guidelines issued by the National Disaster Management Authority and Supreme Court directives on school safety and child protection. UNICEF's global and India-specific frameworks on Child Friendly Spaces and psychosocial care in emergencies further informed the conceptual and operational elements of the document.

Based on the synthesis of field observations, desk reviews, and stakeholder evidence, a practical and context-specific guideline document was formulated. The process ensured that the final guidance was grounded in on-the-ground realities of Multi-Purpose Cyclone Shelters in Kerala, while systematically embedding child-centred principles into their planning, design, and use. This initiative marks an important step towards institutionalising child-friendly and child-safe approaches within Kerala's disaster preparedness, response, and recovery framework.

2. Funding

2.1 Nov 2022 to March 2023

- Funds released - ₹ 3,95,000/-
- Funds expended - ₹ 3,95,000/-

2.2 July 2023 to Sep 2023

- Funds released – ₹3,10,250/-

2.3 Dec 2023 to Feb 2024

- Funds Released - ₹ 5,11,800/-
- Total amount released - ₹8,22,050/- settled in 2024 (included in the 2024 annual report)

2.4 Dec 2023

- Fund for CRIA - ₹1,48,000/-
- Expended and settled in March 2024 – 1,48,000/-

2.5 Audit satisfaction report by UNICEF

M Gmail   Kerala State Disaster Management Authority - KSDMA <keralasdma@gmail.com>

Audit - satisfaction report 2023 - reg

Mahendra Rajaram <mrajaram@unicef.org>   27 January 2026 at 10:11
To: Kerala State Disaster Management Authority <keralasdma@gmail.com>
Cc: Pratheesh C Mammen <pratheeshmammen@gmail.com>

27th Jan 2026.

To,

The Member-Secretary,

Kerala State Disaster Management Authority,

Government of Kerala,

Trivandrum -Kerala.

Dear Dr. Sekar,

Sub: Fund Utilization for Period (Nov 2022 – Feb 2024).

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The partnership between Kerala SDMA and UNICEF emphasized on resilience building leading to the safety and well-being of children and women.

For the period November 2022 to Feb 2024, an amount of Rs. 13,65,050/- (Rupees Thirteen Lakh, Sixty-Five Thousand and Fifty Only) was released to support activities related to Child Risk Impact Analysis, Risk Governance, Capacity Building, School Safety, Evidence Building, and Knowledge Management, as per the agreed program plans.

The FACE forms (Utilization Certificates) for the funds utilized during the above-mentioned periods were duly submitted to UNICEF. Programmatic reviews were conducted regarding the agreed activities for the respective periods. Based on the progress, UNICEF has continued its partnership with the Kerala State Disaster Management Authority.

UNICEF values its partnership with the Government of Kerala through KSDMA and remains committed to continued collaboration in strengthening disaster risk reduction and resilience initiatives in the State.

With sincere regards,

Mahendra Rajaram, PhD,

Disaster Risk and Resilience Officer (South)

UNICEF -Hyderabad Field Office,

Hyderabad – Telangana.