

REPORT

Government of India – UNDP Project on Enhancing Institutional & Community Resilience to Disasters & Climate Change

Years
2013 to 2017



Deliverables

Mainstreaming Disaster Risk Reduction & Climate Change Adaptation

Urban Risk Reduction

Technical Assistance and Capacity Building

Knowledge Management

Community Resilience



Empowered lives.
Resilient nations.

REPORT

'GoI – UNDP project on enhancing institutional & community resilience to disasters & climate change 2013 – 17'

October 2018

State Project Director

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Govt. of Kerala

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UNDP

City Project Co-ordinator (Till 30.03.2016)

Ramesh Krishnan

UNDP

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FOREWORD



ADDITIONAL CHIEF SECRETARY

Disaster Management Department, Government of Kerala
[State Project Director, GOI-UNDP Project]

Government of India - UNDP project on enhancing institutional & community resilience to disasters & climate change was implemented in the state of Kerala since 2013. Visible developments were made by the project with regard to mainstreaming disaster risk reduction & climate change adaptation. One of the major achievements of the project was with regard to preparing community disaster management plans in Munrothuruthu & Peringara villages of Kollam and Pathanamthitta districts respectively.

I am glad that this report has brought out the details of interventions undertaken by the project in the State of Kerala. I would like to appreciate the efforts of the officials in Ministry of Home Affairs, Government of India and UNDP New Delhi for extending all support in the implementation of the project.

P H Kurian IAS

MESSAGE



MEMBER SECRETARY

Kerala State Disaster Management Authority
[State Project Manager, GoI – UNDP Project]

In an effort to showcase the activities done by the project 'GoI-UNDP enhancing institutional & community resilience to disasters & climate change, we are pleased to release the Report for the period of 2013 - 2017.

One of the key contributions of the project was doing the training needs assessment in the health sector of the State. In Urban Risk Reduction component, the project was mainstreamed in Thiruvananthapuram corporation which has earmarked own funds for disaster risk reduction activities. Under the capacity development initiative of the project, 2012 community members and 1119 government officials were trained.

All the deliverables were achieved in this project within the duration of the project and the funds allocated for this project is also used completely. The auditor's report is annexed in the report. On behalf of Kerala State Disaster Management Authority, I would like to thank all those who were part of this project, one way or the other.

Dr Sekhar L. Kuriakose

Introduction

The project ‘Enhancing Institutional and Community Resilience and Climate Change’ will support efforts to strengthen capacities of government, communities and institutions to accelerate implementation of disaster risk reduction and climate change adaptation plans. The project is currently being implemented in these states viz. Assam, Andhra Pradesh, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Odisha, Sikkim, Tripura & Uttarakhand. This project come under the broad sector of ‘crisis management & recovery’ of UNDP operations.

The Annual work plan 2014 of Kerala is formulated in line with the 5 outputs of the project as follows:

1. Mainstreaming DRR/CCA
2. Urban Risk Reduction
3. Technical Assistance and Capacity Building
4. Knowledge Management
5. Community Resilience

1) MAINSTREAMING DISASTER RISK REDUCTION & CLIMATE CHANGE ADAPTATION

1.1) Conducted early warning system assessment workshop

UNDP has given national consultation to TARU Leading Edge to review the status of Early Warning System of Urban Local Bodies. TARU is undertaking the study in seven cities out of 8 cities where USAID supported GOI-UNDP-Climate Risk Management Project is being implemented. The consultants from TARU Leading Edge had visited Thiruvananthapuram on the month of October 2013, and had visited 15 technical and administrative and had interviewed 37 officials representing various agencies. On 19th of March, a consultative meeting on the study of early warning system was held at ILDM (Institute of Land and Disaster Management) which was attended by 27 officials (19 Male & Female: 08) representing various scientific, research and administrative offices.

The program started with a welcome speech delivered by Shri. Ramesh Krishnan, City Project Coordinator of GoI-UNDP-Climate Risk Management Project. The CPC shared a few words on the Early Warning System, the progresses made so far in the city and the objectives of the consultation meeting. He said, that the consultants from TARU Leading Edge had visited Thiruvananthapuram from 23rd to 26th October 2014 had visited 15 technical/scientific and administrative offices and had interviewed 37 officials including a few people’s representatives. He said that, the honorable Minister for Revenue and disaster Management and Mayor of Thiruvananthapuram City Municipal Corporation is has cancelled their program to attend the meeting because of the effectiveness of the code of the conduct of Lok Sabha election. He further said that, in today’s meeting the findings of

the study will be shared with the departments/agencies and the inferences will be discussed and submitted for validation.

Shri. Ramesh Krishnan, City Project Coordinator then invited Dr. Sekhar L. Kuriakose, Member, Kerala State Disaster Management Authority and Head of SEOC (State Emergency Operation Centre) to deliver chairman's address. Dr. Kuriakose, gave an overview of the disaster management initiatives undertaken by the government of Kerala. He spoke on the mandate of HVRA Cell, presently known as SEOC and the works undertaken so far through this unit. Capacity building program of various stakeholders are now being taken up on a priority basis by SEOC, ILDM. He thanks UNDP for institutionalising Disaster Management into the governmental programs and of local body administration.

Shri. Anup Karanth, Associate Director, TARU Leading Edge was invited by the City Project Coordinator to do the presentation. Shri. Anup Karanth started his presentation by thanking all the departments and agencies who have associated with the EWS study team by sharing information and data for establishing a robust EWS for the city of Thiruvananthapuram. As an introduction, he said that the presentation is divided into two parts – (I) is on the key concepts of end-to-end ESW and part (II) will concentrate on a) purpose of the study; b) Approach of the study; c) study framework; d) review of EWS of the city; e) observations and f) recommendations. He said that, different hazards have different time frame for issuing advisories. As an example, for tsunami and floods the time frame for issuing advisories stretches from minutes



Participants of the training

to hours, whereas for climate change the advisory can be issued years and decades. Shri. Anup Karanth said a few models of EWS have been successfully implemented in India. He presented technical details of flood early warning system which was implemented by Surat Climate Change Trust in the city of Surat to safely evacuate the city residents from flood water of river Tapi. He also touched upon the city level weather monitoring system and urban service monitoring system implemented in Surat city. He also gave a nutshell of Real Time Disease Surveillance System implemented at Indore in the year 2013.

After presenting the working models of Early Warning Systems, he shared the purpose, scope, overall approach and methodology of the study of Early Warning System carried out in the seven cities where USAID supported GoI-UNDP-Climate Risk Management Project is currently being implemented. A printout of the CDM – Criteria Development Matrix on six components under which the study was assessed for various levels of

development stage indicators was shared with the workshop participants. The six components are as follows;

1. Component No. 01 : EWS Governance – City Level Institutional Framework
2. Component No. 02 : User Needs
3. Component No. 03 : Operational Components of EWS
4. Component No. 04 : Products and Services Across the Warning Chain
5. Component No. 05 & : Coordination Mechanism
6. Component No. 06 : Service Delivery and Feedback Loops

Shri. Anup Karanth, Associate Director, TARU Leading Edge explained all the five components in detail including the allotted assessment scores. While describing the component no. 01 (EWS Governance – City Level Institutional Framework) a healthy debate between Dr. Sekhar. L. Kuriakose, member Kerala State Disaster Management Authority and Shri. G. Anil Kumar, (Rtd.) Superintendent Engineer of Irrigation-South Circle, Thiruvananthapuram erupted. Shri. Anil Kumar was of the opinion that, the city of Thiruvananthapuram has never witnessed severe urban flooding and it is never recorded in any documents. As reply to the comment made by Shri. Anil Kumar, Dr. Sekhar. L. Kuriakose said that in the archived documents, the orders of then Maharaja of Travancore on flood management is available. However shri Anil Kumar said that The Department of Irrigation has done pilot study on flood inundation of some parts of Thiruvananthapuram city nearing Karama area and an extensive study in the Grampanchayat adjoining the Municipal Corporation of Thiruvananthapuram was undertaken. He said that the study was done by a technical agency based at Techno Park, Thiruvananthapuram and the report is now release. On enquiry the officials of Irrigation Department present in the meeting agreed to share copy of the report to the Municipal Corporation as a reference material for updating the City Disaster Management Plan. While discussing on hazard and risk assessment of Thiruvananthapuram city Dr. Sekhar L. Kuriakose said that, SEOC has started the work under GoI-UNDP-CRM Project and it will be completed in a period of 18 months. One of the participants opined that, after completing hazard and risk assessment study of Thiruvananthapuram city who will do the follow up and who will implement the recommendations of the study to mitigate the impact of disasters. Ms. Reshmi Theckethil, National Coordinator of GoI-UNDP Programme on Enhancing Institutional and Community Resilience to Disasters and Climate Change said that, the Department of Revenue and Disaster Management, GoK shall take the lead to coordinate the implementation of the recommendations of HVRA study.

Shri. Karanth, Associate Director, TARU Leading Edge continued with his presentation. He shared that, The DHS – Directorate of Health Services have a robust mechanism to monitor the epidemics and issue advisories to the general public. With regard to the financial assistance for EWS, Consultant Ms. Sandhya Rao enquired whether the local authority (City MC) has allocated any funds. Shri Ramesh Krishnan, City Project Coordinator of GoI-UNDP-CRM Project informed the forum that the city MC has allocated

Rs. 25 lakhs for disaster management which will cater to the needs of EWS also. Shri Anup Karanth, Associate Director TARU Leading Edge covered all the other five components of the study and elicited feedback and comments from the workshop participants.

According to the findings of TARU Leading Edge, following are the best practices followed in the city of Thiruvananthapuram:-

1. Directorate of Health Services has a robust mechanism to monitor the epidemics and issue advisories to the general public;
2. Irrigation Department has conducted a study for 24 year return period flood (Karamana and Killi Rivers) using GIS that provides information on inundation levels and potential impacts;
3. MC has allocated Rs. 25 lakhs for disaster management which will cater to the needs of EWS
4. Utilizing the 13 FC grant, a state-of-the-art SEOC is being set up in Thiruvananthapuram which will have data monitoring and analysis facilities. A Grade I officer from each department will be posted at the SEOC, to facilitate inter-departmental coordination;
5. NCRMP commences in Kerala from 20 March 2014. This 200 crore project has been approved and will involve construction of cyclone shelters and capacity building initiatives.

The EWS review team also shared with the participants some of the key challenges faced. These include the following:-

1. Disaster management does not come under the purview of municipal corporation;
2. Absence of a functional City level EOC; City does not get direct warning from Met agency/technical agencies;
3. EWS not mentioned in the City DMP;
4. City level risk not assessed yet;
5. No specific arrangements within the city for night time warning;
6. Budget head doesn't exist in ULB for EWS;
7. Lack of capacity of staff to operate EWS;
8. User-need assessment not undertaken.

1.2) Awareness workshop on Landslide & Climate Change

The Kerala State Disaster Management Authority, the Geological Survey of India and the GoI-UNDP Project on Enhancing institutional and community resilience to disasters and climate change (2013-17) organized a one day awareness workshop on 'landslide and climate change' for the benefit of the stakeholder government departments, NGOs and institutions involved in disaster risk reduction in the State. The Chief Secretary of Kerala, Shri. E.K Bharat Bhushan IAS chaired the inauguration and the key note address was delivered by Shri. Harbans Singh, Director General, Geological Survey of India. Shri. K.

Kutumba Rao, Deputy Director General, Geological Survey of India, Kerala Unit extended a warm welcome to the dignitaries and participants. Prof. Dr. Keshav Mohan, Member KSDMA & Director, ILDM addressed the audience and enlightened them regarding the necessity of imparting training starting from schools for landside risk reduction. Shri. M. Raju, Deputy Director General and National Mission Head (IV), GSI, Kolkata introduced the objectives of the workshop. Shri. E.K Bharat Bhushan, Chief Secretary, Kerala and chairman of the function highlighted the specific expectations of Kerala. He highlighted the following:

The State Government expects GSI to provide technical support in local level interventions for landslide mitigation particularly along the hilly road segments

The State requests GSI to conduct investigations along the hilly roads of Kerala and provide specific intervention inputs along each segment for landslide mitigation

The SDMA is in the process of developing a decision support system for enhancing the operational warnings of landslides and floods that it issues in the state. GSI's active participation, as it is now, is expected in the future and continued efforts of the State Government in its endeavour. Shri. Harbans Singh, Director General, GSI highlighted the need for the state to proactively take steps for conducting local level interventions and awareness campaigns for landslide risk reduction. He extended all technical support from GSI for the same. He opined that Kerala is far ahead of most other landslide prone states in the country as far as landslide hazard assessment and awareness regarding landslides is concerned.



Two reports, namely “Post Disaster Landslide Studies in Kerala” and “Landslide Susceptibility Mapping on macro scale along the major road corridors in Idukki district, Kerala” were released by the DG, GSI and handed over to Chief Secretary, Kerala. Shri. C. Thanavelu, Director, Engineering Geology & Landslide, GSI, Kerala Unit delivered the vote of thanks.

Three Interactive Sessions were held. - The first interactive session was chaired by Shri. Harbans Singh, Director General, Geological Survey of India (GSI). Shri. C. Thanavelu, Director, GSI, Kerala Unit delivered a lecture on the overview of landslides studies carried out by GSI in Kerala. Shri. G. Sankar, Scientist F, National Centre for Earth

Science Studies: Delivered a lecture on landslides of Kerala. He explained that debris flows and landslips are the most common type of landslides in Kerala. He highlighted that natural soil piping (alias, natural tunnel erosion) has become a prominent land degradation process in Kerala and that it reported from about 7 districts. He also explained that soil piping is increasingly starting to be noted as a cause of landslides and land subsidence. Dr. Sekhar L. Kuriakose, Member, KSDMA & Head, SEOC delivered a lecture on vegetative control of landslides. He highlighted the fact that in many parts of the state frequency of landslides can be reduced by vegetative control measures. Vegetation alone will not prevent landslides from occurring and outgrown buttressed trees and roots may also favour the occurrence of landslides with sufficient wind loading. Hence careful selection of species (preferably local species) is needed which can develop anchor roots. In urbanized areas and road cuts, outgrown trees should be pruned and the state needs a pruning policy. He also flagged the issue of effects of climate change on vegetation; changes to climatic patterns will impact plant growth. Shri. M. Raju, DDG, GSI presented the nation-wide landslide susceptibility mapping programme with the intention of publishing 1:50,000 landslide susceptibility maps. He informed the audience that Kerala was the first state to respond to GSI's request for organizing such a workshop this year and it is highly appreciated. The Chairman concluded the session and highlighted the amount of knowledge available in the state of Kerala regarding landslides. He also directed GSI Kerala Unit to interact with other organizations involved in landslide studies prior to initiating the 1:50,000 landslide susceptibility maps as Kerala already has such maps.

The second interactive session was chaired by Shri. G. Sankar, Scientist F, National Centre for Earth Science Studies. Dr. Saibal Ghosh, Supt. Geologist, GHRM Cell, GSI, Kolkata: He deliberated upon various site specific landslide investigation and prescribed remedial measures based on field experience across the country. Numerous case studies were presented which offered significant insights to the audience regarding structural interventions possible and feasible for landslide mitigation and control. Case studies from other countries which may be utilized in tropical areas such as Kerala was highlighted. He concluded highlighting the need to conduct detailed investigations of every possible landslide and seeking localized cost effective remedial and control measures. Prof. Dr. Sreekumar, Geology Department, Christ College, Iringalakuda critically analysed a number of landslides in Kerala and showcased the diversity of causative intrinsic and extrinsic factors leading to landslides. From inherent structural aspects of the rocks, characteristics of the overburden and anthropogenic interferences, his talk brought out various typical characteristics of the landslides in Kerala. He highlighted that slope stability analysis is incomplete without systematic micro-level geological and geotechnical mapping. He highlighted the fact that the clearance of a geomorphologist/geologist/disaster management specialist should be made mandatory prior to approval of the construction of any major roads/bridges. Dr. Pankaj Jaiswal, Supt. Geologist, GHRM Cell, GSI, Kolkata

deliberated upon landslide forecasting in the Western Ghats using rainfall thresholds. He, with the help of data, stochastic analysis and GIS explained the process of creating rainfall thresholds to the audience. He also explained how such data has been used along the Nilgiri hills railway corridor for forecasting landslides. He highlighted the fact that fluctuations due to global climate change in the rainfall pattern (intensity and amount) as forecasted for the peninsular region of India implies that such thresholds have to be as local as possible and dynamic, linked to soil saturation conditions. He appealed to the Govt. of Kerala to revitalize the network of rain-gauges at village level. He concluded stating that Kerala can be a good example for threshold modelling for regional landslide forecasting.

As a concluding note, Dr. Sekhar L. Kuriakose, Member, KSDMA highlighted the following points as the resolution of the workshop. All participants agreed to the resolutions and agreed to work forward in a coordinated manner to ensure landslide risk reduction in the state.

- The Government may take steps to ensure that appropriate clearance of geomorphologist/geologist/disaster management specialist are obtained before the construction of major roads/bridges/culverts etc. such that landslide risk reduction is an integral part of such designs, especially in hilly tracts.

- It is needed that such awareness workshops are conducted regionally in local language involving more departments and civil society representatives.

- State should have a tree pruning policy in areas of human settlements such that bottlenecks are minimal to cull overgrown and precarious trees.

- Local self-government should take steps to clean culverts and sluice gates prior to monsoon season every year such that water stagnation is minimal in slopes.

- Rainwater harvesting along slopes of $>20^\circ$ shall not be permitted.

- Government of Kerala shall attempt to revitalize and establish a rain-gauge network up-to village level. The event concluded with the distribution of mementos and certificates to all speakers and participant

1.3) **Observation of International Disaster Risk Reduction Day**

The International disaster risk reduction day was jointly organized by KSDMA - ILDM – GoI - UNDP on 13th October 2014. In line with the theme of IDRR day, 2014 – ‘Step up: Ageing Population’, a one day long awareness programme on ‘elders in need of palliative care during disasters’ was organized. Hon’ble Minister for Revenue and Disaster Management, Shri. Adoor Prakash inaugurated the event. He stressed up the



need to be ‘preparedness oriented’ instead of response oriented in disaster management. He highlighted the fact that young generation should be aware of the possible hazards that the state is exposed to and should learn and be prepared for undertaking basic response.

The awareness workshop on ‘elders in need of palliative care during disasters’ began at 9 am. Three specialized trainers from Pallium India (<http://palliumindia.org/>) conducted the workshop with demonstrations and illustrations. Participants included representatives of Student Police Cadets, National Service Scheme, National Cadet Corps etc. The classes handled included basics of palliative care, cancer – myth and reality, general knowledge regarding treatment options and palliative care during disaster times.

1.4) Inter - departmental consultation meeting on handbooks on disasters

An inter-departmental consultative meeting was held on the 30th of December 2014 at Executive Lounge, Hotel Mascot, Thiruvananthapuram.

This program was jointly organized by SEOC, KSDMA & UNDP under the project ‘enhancing institutional & community resilience to climate change & disasters. Under this project, two handbooks were prepared (draft) viz. 1) Drought – Monsoon preparedness activities – guidelines for district administrations and 2) Handbook on disaster management vol 2.

Dr Kesav Mohan who is the Director of ILDM chaired the meeting. He emphasized the importance of producing such materials in the state to achieve the goal of disaster-less kerala. He said that collaborative efforts by various departments is the need of the hour. Mr Joe George, State project officer of GoI-UNDP project welcomed all the participants, he also gave a brief introduction about the days’ program and the purpose for which the meeting was called for.

Later, Dr Sekhar L. Kuriakose, Head (Scientist), Member KSDMA facilitated the review of two handbooks in detail. Dr Kuriakose is also the State Project Manager of GoI-UNDP project. He deliberated on the role & responsibilities of each department to ensure efficiency by all nodal departments, at all levels to handle disasters. Special emphasis was given on the checklists of various departments in drought-monsoon



Dr Keshav Mohan, Director ILDM delivering the inaugural address

preparedness activities handbook. He also shared about the functions of emergency operations centres based on the content in page no: 12 of ‘handbook on disaster management’.

The program was attended by the representatives from these departments viz. Agriculture, Education (DPI & HSE), Animal Husbandry, Police, Directorate of Panchayats, Health, KSEB, SDMA, Civil Supplies, SEOC, ILDM and Revenue Dept.

1.5) Development of sectoral plans to mainstream DRR & Climate Change Adaptation in development programs in Thiruvananthapuram City

The Municipal Corporation in association with UNDP organized a half day workshop on mainstreaming Disaster Risk Reduction/Climate Change Adaptation into development plans on 22-December-2014 at Fortune, The South Park, Thiruvananthapuram. Forty Nine participants attended the program. This includes officials from education, health, town planning, revenue, corporation, KWA and several other government departments.

Before the formal inauguration of the program, a special address was given by TM Corporation Secretary, Venkatesapathy.S, IAS. He shared some of his real time experiences in managing disasters that hit Trivandrum Corporation. He mentioned that understanding the need for intervention in the field of disaster management, the Municipal Corporation of Thiruvananthapuram has taken one step ahead by preparing a detail project proposal on strengthening the disaster response and preparedness activities. Under the proposed project, emergency equipments will be purchased and will be used at time of disaster. The contingent health workers of the MC will be trained on how to operate and maintain the equipments. He concluded by saying that, mainstreaming DRR/CCA is indeed needed to build a resilience city.



Shri S Venkatesapathy IAS addressing the participants

Mr. Joe John George, UNDP State Project officer delivered welcome speech. He provided brief outline on the relevance of mainstreaming DRR and CCA into development plans of the Municipal Corporation.

Presidential address was given by Shri Palayam Rajan, Standing Committee Chairman (Welfare). Shri Rajan in his presidential speech emphasized the need for taking up disaster response activities as a priority. He said the Municipal Corporation has acknowledged the importance of disaster management and now have come up with project proposal to strengthen the activities of city disaster management cell. He said to in-house capacity building is more important to strengthen the disaster management programs of the

Municipal Corporation. Towards the concluding part of this speech, he requested all the participants representing various departments of city, district and state level to actively participate in the workshop and bring out anticipated result of the workshop. He invited the Dy. Mayor of Thiruvananthapuram Municipal Corporation to inaugurate the workshop.

Shri. G. Happy Kumar, Deputy Mayor of Thiruvananthapuram Municipal Corporation said that he is much delighted to see that the workshop is being attended by officials from departments like district Education, KWA, Engineering, Health, UPA and People's Planning cell of the Municipal Corporation. He said that, "at present, the disaster response of the Municipal Corporation is unsatisfactory. This is primarily because the MC does not have equipments to respond to emergencies. The department of Kerala Fire and Rescue and Services is the only saviour of the Municipal Corporation during emergencies. But Kerala Fire Force is also not adequately equipped. It is in this context, the Municipal Corporation has approved project worth Rs. 32 lakh for disaster response and preparedness. He concluded his deliberation by offering his thanks to all the participants for attending the workshop and requested to share their thoughts and provide feedback so the UNDP team can bring out papers for mainstreaming DRR/CCA into the development programmes of the MC."



Shri Nagendra Biyani facilitating the sessions

The technical session was facilitated by Shri Nagendra Biyani, SPO of Andhra Pradesh, GoI-UNDP project; he advocated the importance of Disaster Risk Reduction in preparedness phase. Historically India has been vulnerable to disasters but the efficient administration and effective use of ambient technologies saved the people. The King of Odisha, before hundreds of years constructed bund, in order to prevent the flooding and even he knew well about mainstreaming DRR through action.

Very recently, our country was hit by many urban disasters like flooding in kashmir and Hud Hud cyclone, that eventually lead to the collapsing of all urban utility infrastructures. Many of the urban disasters are anthropogenic in the sense; the risk component is added by the deeds of man. Only after the Mumbai flood the administrators had seriously taken the urban disaster preparedness programs. This year another major tragedy happened was the building collapse in Chennai that took lives of 70 migrant people from Andhra Pradesh. Besides from this the Hud Hud cyclone caused major devastation in the metropolitan city of Vishakapatnam and it's the first cyclone that struck a metropolitan city in India. Urban system is a complicated, complex system with assets and infrastructures worth crores of

rupees and any damage in that will be huge and abnormal. Cities are hotspots for disaster, since 30% of the population of India lives in urban area, without proper planning it will be a kind of devastation for the entire nation. As far as our technologies concerned we are having one of the best early warning systems but we lack in infrastructural preparedness, long term planning and mitigation planning.

For minimizing the vulnerability of disaster, mainstreaming DM component in each and every department is the only available option. As far as Town planning/Engineering department are concerned, they can do a lot in this field like, land use planning, implementing/integrating building bye laws, encourage construction of hazard resilient structures in government financed housing programmes like RAY, JNNURM etc, priority budgeting of DRR projects, disaster auditing and evaluation of departmental plans.

The Department of Finance, Government of India has earmarked 10% flexi funds in all the national project/flagship programmes exclusively for disaster mitigation/management and can be better utilized effectively. DRR and development have both positive and negative realm. After Hud Hud cyclone, The City of Vishakapattanam is planning for a pilot project to construct all essential utility services through an underground duct. After the completion of this project GOI is planning to extend this project in all other coastal cities.

Mainstreaming CCA into developmental planning is yet another task to be finished at the earliest. For that, sensitization, critical evaluation, and reducing vulnerability are the best options availing now. It can be mainstreamed through annual/five year plans, flagship projects and specific mitigation projects like NCRMP. Assessing, incorporating and designing ie, implementation and monitoring evaluation are the major steps in mainstreaming. It can be done either through structural/non-structural mechanisms. Major gaps identified are capacity building gaps, funding gaps, and community participation. For every developmental project CRZ norms should be strictly followed by the government and training/capacity building shall be promoted. The health wing shall conduct risk assessment for their structures and hazard resistant structures shall be promoted for at least to their upcoming projects.

The participants were divided into five major groups such as health, habitat, solid waste management, water and education. They were asked to fill the given formats and present it at the end of the session. Ms. Beneditta Gerard of MSS, Dr. A. Sukumaran from DHS, Mr. Arun Prasanth of NRHM, Ms Seema SR, ATP, Town planning Office and Mr. Siji thankachan of SDMA presented the group presentation of education, health, waste management, housing and water respectively. The program wined up with the vote of thanks of Mr. Ramesh Krishnan, City project coordinator UNDP.

2) URBAN RISK REDUCTION

2.1) Updation, Finalization and printing of City Disaster Management Plan for Thiruvananthapuram.

On 9th December 2014, the Municipal Corporation of Thiruvananthapuram organized half day consultation meeting to disseminate the content of draft City Disaster Management Plan with various key stakeholders representing city, district and state level officials at Fortune Hotel The South Park. UNDP, under Disaster Risk Reduction/Urban Risk Reduction Program 2010-12 had prepared a skeleton feature of City Disaster Management Plan. Later in the year 2013 under USAID supported GoI-UNDP Climate Risk Management Project in Urban Areas through Disaster Preparedness and Mitigation, UNDP has given national consultancy to review the existing CDMP. The Consultant visited the city of Thiruvananthapuram and had discussion with many officials associated to disaster management including people's representatives and officials of the Municipal Corporation of Thiruvananthapuram. The consultant later submitted recommendation report on updating the content of the City Disaster Management Plan more from a climate risk framework. In order to update the CDMP, the project team had visited many departments and collected data, maps and it took nearly eight months to prepare an updated City DM Plan document. Copy of the CDMP document was circulated to each of the invited departments, so that the officials can go through the document and come prepare for sharing their views, comments and opinion.

Participants

30 officials (Male: 26 and Female: 4) representing Thiruvananthapuram Municipal Corporation; Institute of Climate Change Studies; Regional Town Planning; Thiruvananthapuram Medical College; District Medical Office; NATPAC; District Administration; Factories and Boilers; State Emergency Operation Centre; Directorate of Health Services; Kerala State Disaster Management Authority; NRHM; Media; Irrigation; Institute of Land and Disaster Management and Integrated Disease Surveillance Program participated in the workshop.

Program

Mr. Joe George, State Project Officer of UNDP Project on Enhancing Institutional and Community Resilience to Disaster and Climate Change delivered welcome address.

Shri. G. Happy Kumar, Deputy Mayor of Thiruvananthapuram Municipal Corporation presided over the workshop. In his presidential address, he shared his thoughts in the arena

of disaster management and the problems currently being faced by the Municipal Corporation. He said every year especially during monsoon period managing disaster really become tuff. He said that, Kerala Fire and Rescue Services at some point of time are unable to handle the situation only because they are also handicapped with sufficient equipments. He said, in order to ease the difficulty, the Municipal Corporation of Thiruvananthapuram has approved project worth Rs. 32 lacks to strengthen the functioning of City DM Cell. The major chunk of the project is procurement of emergency rescue equipments. He said in the coming years, DM Cell of the Municipal Corporation will have more teeth and brains to work. He cited the examples of metros, where technological up gradation and modernization is adopted to tackle emergencies, but we are still in the age old period. He stressed adoption of modern technology for disaster management. Towards end of his deliberation, he invited Honorable Mayor of Thiruvananthapuram Municipal Corporation to inaugurate the workshop.

Mayor Adv. B. Chandrika in her inaugural address said that, in 2005 when flash flood affected the city of Thiruvananthapuram, it was a challenge for the urban local body to manage the disaster. Many of the houses in the city limit especially Jagathy ward and nearby locality was inundated. Though there was no human casualty, the destruction to property was reported in huge number. She said that disasters are frequent in the city of Thiruvananthapuram. Fire is another hazard which the city is facing. Every year, minor fire accidents are occurring in the city. The recent fire accident that occurred in Chala market on 14-Nov-2014 was near fatal. One person lost his life and 10 shops were gutted down and commodities worth lakhs of rupees got damaged. Road accidents, epidemics are random. She stressed the need for managing disasters with modern equipments. She said that the Municipal Corporation has taken one step ahead for strengthening the city DM Cell by procuring emergency equipments. Towards the end of her deliberation, she urged that while we do disaster response we must ensure that all safety measures are fulfilled. She requested all the workshop participants to contribute their views and opinion on various aspects of the CDMP documents and concluded the inaugural address.



Hon'ble Mayor of TMC, Adv K Chandrika
inaugurating the event

Ms. Vrindanath M.C, Project Fellow of State Emergency Operation Centre attached to the Municipal Corporation presented the draft content of the City Disaster Management Plan.

She started her presentation by quoting the provision mentioned in Chapter No. 06 of National Disaster Management Act 2005. The chapter says that, the employees of the urban local bodies shall be trained in Disaster Management. The ULB shall ensure that resources required for DM shall be maintained and readily available for use during emergency. The ULB shall ensure all construction projects under it or within its



Participants in a group discussion

jurisdiction conform to the standards and specifications laid down for prevention of disasters and mitigation by the National Authority, State Authority and the District Authority. The ULB shall carry out relief, rehabilitation and reconstruction activities in the affected area in accordance with the State Plan and the District Plan and may take other measures as necessary for the disaster management. She said that, CDMP has been divided into 6 chapters. Chapter No. 1 tells about the profile of the city, Chapter No. 2 tells deals with introduction to CDMP; Chapter No. 3 focuses on Hazard vulnerability and Risk Assessment; Chapter No. 4 is on mitigation aspects; Chapter No. 5 tells about institutional arrangements and Chapter No. 6 is on planning and resource structure. Under city profile, she said that under natural hazard, the city is prone to various hazards like; Urban flooding; Coastal erosion; Lightning and Drought. Under environmental hazard - pollution and Municipal Solid Waste Disposal. Under Anthropogenic hazards, hazard listed are chemical disaster and stampede and under UID/Epidemics hazards are utility infrastructure and epidemic outbreaks. The hazard Risk Index of the city with magnitude (Unlikely, Occasional, Likely and Highly Likely) were presented. The seasonality hazard mapping of Thiruvananthapuram city was also presented.

After the presentation, the floor was opened for discussion and feedback on the content of the presentation and CDMP. The participants of the workshop congratulated UNDP team for making an almost all inclusive document. But at the same time, they pointed out that some portion of the CDMP document need to be updated.

2.2) Finalization of City wide Hazard Risk and vulnerability analysis for Thiruvananthapuram

State Emergency Operations Center has submitted draft City vulnerability report. The report has been submitted to UNDP country office for comments. The National Project Coordinator of GoI-UNDP-CRMP has given comments on the City Vulnerability Report. The SECO has also provided their response comments and has incorporated the feedbacks which are relevant. The final version will be published in the year 2015.

3) TECHNICAL ASSISTANCE & CAPACITY BUILDING

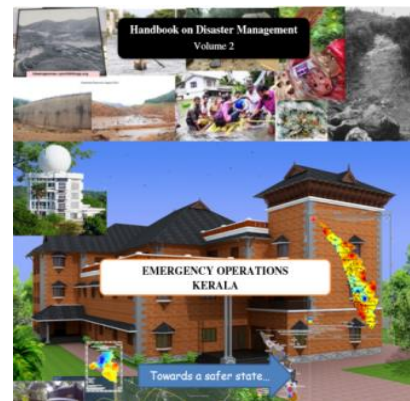
3.1) Training needs assessment of private & public medical service sector in the state

Training needs assessment of medical sector was done in the reporting year. For this purpose, an agency was engaged named ‘Indian Institute of Emergency Medical Services’ Kottayam. The draft report of TNA was submitted on which SEOC & UNDP provided valuable inputs/feedback. IIEMS has tried to incorporate all the feedback and the final report was submitted. The report contains the response of around 1600 odd medical students & practitioners in the areas of disaster preparedness, acquired skills in this area, training needs, analysis etc.

The document throws light into various aspects of disaster preparedness and training needs among the medical students & practitioners across the state. The assessment looks thoroughly into the capacity building needs of medical students & para professionals.

3.2) Preparation of a standardized scheme for improving the effectiveness of district level disaster control rooms, including augmentation and upkeep of the alternative communication network of the SDMA & DDMA

Under this activity, a handbook on disaster management - Vol 2 was prepared. This was made in English & later on translated into Malayalam. An inter-departmental consultative meeting was organized on 30th December inviting officials from all nodal departments. The representatives gave feedbacks which were relevant and it is incorporated in the book. This book was presented before the State Executive Committee also.



3.3) Setting up of an online repository of resource persons and digital resources pertaining to various aspects of disaster risk reduction and climate change adaptation in the state

Kerala’s geographical location, weather pattern and high population density makes it prone to severe natural as well as human-induced disasters. The State of Kerala is prone to a host of natural hazards such as coastal erosion, flood, drought, lightening, landslide and earthquake. Almost all districts of Kerala are multi-hazard prone. In Kerala lightning, landslides and floods are the most commonly occurring natural hazards.

Kerala is home to 3.44% of India's population. Kerala's rate of population growth is India's lowest, and Kerala's population as per Census 2001 was 318.41 lakh consisting of 154.69 lakh males and 163.72 lakh females. With 819 persons per km², it is nearly three times densely populated compared to the rest of India.

Need for online repository

Collating the information on disasters, updating statistics, providing IEC / BCC materials etc are the need of the hour. It was recently informed by NDMA that IDRN network is reactivated and all the states can once again start adding materials to it. The existing website of Kerala SDMA (<http://sdma.kerala.gov.in/>) is not in a proper shape. A lot of materials have now come in place and are currently presented on disasterlesskerala.org, the alternate website of SEOC.

There is a need to re-design the website of SDMA and add up contents and make it more users friendly. This includes conversion of the entire site into a word-press development scheme as in the case of disasterlesskerala.org and also add up contents. Initially, all available contents on DRR will be added and subsequently individual items related to climate change too will be added.

Objectives

- To develop and maintain a user friendly online repository for the entire state of Kerala.
- To have a real time data maintained online.

Collaborating partners – Host, partner Institutes etc

MHA, Govt. of Kerala, NDMA, NIDM, Kerala Police, ILDM, SEOC, IDRN links are provided in the website. This will give the first-hand information to the user.

Monitoring & Evaluation

The website would be monitored by State Emergency Operations Centre. Timely feedback would be taken to improve the site. Evaluation would be done through selected officials, staff, visitor of the site etc.

3.4) Technical Assistance for training of urban community volunteers

The Municipal Corporation has hired one consultant to on short duration for preparing IEC materials on four hazards and handbook on the roles and responsibilities of volunteers of Community Based Disaster Risk Management Program. The consultant has completed the task assigned to him and all the IEC materials are now printed.

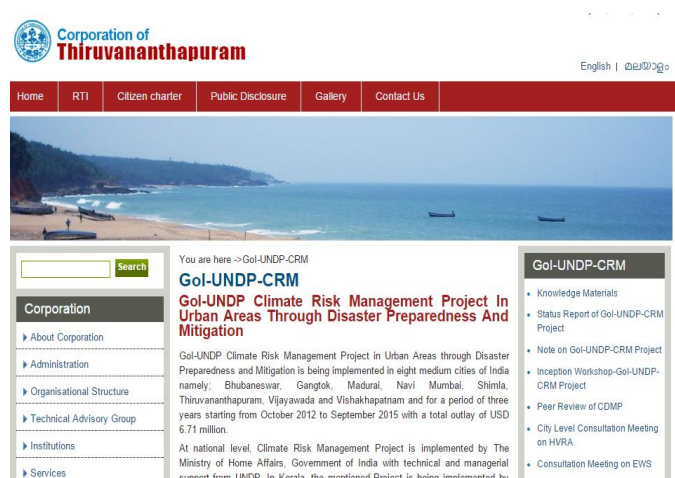
4) KNOWLEDGE MANAGEMENT

4.1) Development and printing of a simple & user friendly handbook for district administrations for monsoon & drought preparedness activities in Malayalam, particularly with information regarding provisions of funds & utilization powers.

A handbook was prepared under the above said activity titled ‘monsoon – drought preparedness activities’. This book is an introduction of these two disasters in the context of Kerala, best practices, guidelines for district administrations, funds and utilization powers etc. This book was primarily prepared in English and later translated to Malayalam. A consultation meeting was organized on this handbook on 30th Dec 2014 inviting various nodal department officials to discuss and deliberate on the content of the book and changes if any.

4.2) Development of web page and awareness materials on Urban Risk Reduction

As per Approved Annual Work Plan (AWP) 2013, The Ministry of Home Affairs and UNDP has approved an amount of Rs. 10,000/- for making a webpage for the ongoing GoI-UNDP-Climate Risk Management Project. The IT officer of the Municipal Corporation was provided with reports and documents related to making of the webpage. In the month of Aug 2014, the IT section of the MC did trial run of the webpage and it was sent to the NPC for comments. The NPC gave her comments and the webpage was revised accordingly.



The link of the webpage is <http://www.corporationoftrivandrum.in/goi-undp-crm>.

5) COMMUNITY RESILIENCE

5.1) **Training of urban community volunteers in disaster response in 40 wards in Thiruvananthapuram city**

The Municipal Corporation of Thiruvananthapuram had published “Expression of Interest” in the newspaper “The Hindu” on date 16-Nov-2014 to invite applications from credible Non -Governmental Organizations for implementing Community Based Risk Disaster Management programme under GoI UNDP-CRMP. Two NGO’s have applied by name; Vizhinjam Motherport Action Samithi and Malankara Social Service Society. After scrutinizing the EoI, the MC has selected MSSS as the support organization for the implementation of CBDRM in 40 new wards. An MoU was prepared and was signed by the MC of Tvm and MSSS on 15-Dec-2014. First installment of Rs. 1,64,881/- was also released to the partner NGO for implementing the program.

Following are the details of the training programs organized in 2014 under the sub head 5.1.

Shelter Management Training Program:

First session focused on delivering the details of GoI-UNDP-CRM Project and introduced the concept of Community Based Disaster Risk Management to the trainees. The trainer in his presentation displayed the pictures of recent disasters that have occurred in and round Thiruvananthapuram city and a few pictures of 10 disasters that have occurred in other parts of Kerala. The trainer asked the trainees to carefully observe all the pictures and asked them to share their observations. The purpose of showing disaster related pictures was to facilitate participation of the trainees in the training program and to establish how local communities are involved in disaster response activities. The trainer presented the objectives, goal and the process of implementation of Community Based Disaster Risk Management at ward level. The trainer shared his personal experience of implementing CBDRM project in 48 wards of 6 Grampanchayat situated between Mullaperiyar and Idukki dams during 2011-12 including challenges faced by the project team. The trainer concluded the session by presenting a case study of “Samiyarpettai” - a village near Pondicherry in Tamil Nadu where CBDRM project was successfully implemented with support from UNDP. The villagers were trained in various aspects of disaster responses and mock drills were also conducted by the volunteers involving the local community members. When Tsunami struck the coastal village on December 26th 2004, the community responded well and the deaths reported from Samiyarpettai were few.

In the second session the trainer presented the objectives; meaning and scope of shelter management; roles & responsibilities of different agencies like; government departments; local; national and international NGO's in disaster response. He cited the few examples how national and international development organization and state government worked for building shelters (temporary and permanent) in the tsunami affected area in Kollam and Allappuzha districts. The trainer cited a couple of challenges faced by the national/international and state government in handling shelter. A video documentary on "Shelter Management" program of Haiti was shown to the trainees and narrated the story.

In third session the trainer explained the roles and responsibilities of the task force members of shelter management team. The trainer described in detail criteria's for identifying and selection of a safe shelters; which includes evaluation of demographic detail of the community which will be affected by a hazard; what hazard is likely to struck, how long the shall be the duration of



shelter; analyze previous experience in managing shelters; facilities available in the existing shelters or explore possibilities to install facilities; discussion with the owner/management of the identified shelter; examine whether provisions for animal care is available; check the existing damages in the structure of the buildings; review list of supplies for shelter inmates; staffing pattern of a shelter etc. The trainer facilitated on how to do SWOT analysis of the existing shelter of their respective wards. Directions and guidance were given to the trainee and what to focus and what not to focus. Flip Charts, maker pens and sketch pens were issued. After 30 minutes of group exercise, the trainees presented their observations and analysis.

In fourth session, the trainer covered damage assessment; need assessment; need analysis and disaster reporting. The trainer said that in the post disaster scenario, the government shall first take up Rapid Damage Assessment by undertaking survey to collect the first hand information of damages caused. This does not include detail quantitative assessment of the damages. The purpose of rapid damage assessment is to facilitate decision making. Whereas damage assessment per se is the estimation and description of the damages recorded based on physical observations, of the nature and extent of damages resulting from a particular disaster. This is done to determine quantum of community need assessment. The trainer also talked about resource assessment, which mainly focuses on estimation and description of priority requirements and existing resources such as manpower, logistics and relief supplies in the disaster-stricken areas. The trainer said that,

under comprehensive damage assessment, the assessors have to establish the impact of a disaster in terms of; casualty; damage of private property, infrastructure, agriculture; livelihood, population affected etc. The trainer explained steps to organise an assessment mission which includes; preparation of an assessment plan; determining the time and specific area to be visited; select experienced assessors; arrangement of transport, food and accommodation; make clear the roles and responsibilities of each team member and prior to departure, the team must be assembled, briefed and equipped with survey/assessment tools, appropriate protocols, reporting format and adequate terms of reference (TOR). The trainer also mentioned guidelines for conducting the survey and assessment. A few of them are; to have a close personal observation of affected areas; gather information from other agencies; coordinate with other groups with related functions; focus attention on damages related to assigned tasks; to equip with terms of reference (TOR) (quality, quantity and scope of information to be collected); crosschecking of data (coming from different sources). Under Need Assessment, the trainer shared the scope and importance of need assessment. The trainer mentioned that, the purpose of need assessment is done with the aim to ensure that, minimum humanitarian standards are fulfilled in the areas of Water Supply and sanitation. Need assessment also included; household needs, agricultural needs and economic needs. The trainer presented the goal of Rapid Need Assessment, a few among them are; How bad was the disaster?; Which areas were affected?; How many people are affected?; What are the risks to life, safety, and health?; What is the status of lifeline services? And How many homes and businesses are not insured or are underinsured?. Towards the end of the fourth session, the trainer made a discussion with the participants on the general safety concerns to be implemented in the shelter.

In fifth and final session, the trainer spoke on the minimum standard of relief to be maintained in – 1) Supply of food and clothing and 2) Water and sanitation. Under supply of food and clothing the trainer described food security; nutrition and food aid. The trainer mentioned that, to obtain food security it is necessary to examine the issues related to food security of the disaster affected area, small income and employment generation schemes shall be promoted which contributed towards food security. Under nutrition support, the trainer said that, all groups of people shall be provide with at least 2100 calories per day. Special attentions shall be given to risk groups like; infants, pregnant and feeding mothers, chronically ill persons like; TB patient, HIV-AIDS infected persons and others. Definition of malnutrition, moderate, severe malnutrition and micronutrient malnourishment for urban and rural settings was discussed. The trainer also spoke food aid management, in which he mentioned food aid planning, rationing, appropriate and acceptable food stuffs, food quality and food storage and handling. Under non-food items, the trainer made a detail description of shelter and settlement covering points such as strategic and settlement planning; covered living space; basics of construction and environmental impact. Under

Non Food Items, the trainer covered Individual, general household & shelter support items; Clothing & Bedding; Cooking & Eating utensils and Stoves, fuel & Lightening.

Basic Life Support (First Aid) Training Program

One day training program on Basic Life Support (First Aid) was conducted in all the five clusters (16 wards) where Community Based Disaster Risk Management Program is being implemented. The training program was facilitated by a medical organization called; ANGELS (Active Network Group of Emergency Life Savers) based at Calicut.

Search/Rescue Training Program

As part of Community Based Disaster Risk Management Program, one day training and awareness program for volunteers of Search and Rescue team was organized in two locations of the Municipal Corporation of Thiruvananthapuram on the 4th and 5th of October 2014. The training program was facilitated by master trainers of National Disaster Response Force, Arakkonam, Tamil Nadu headed by Mr. Rojesh Thomas Deputy Team Commander.

The training program started at 11.00 AM. A total of 145 community volunteers (Female: 132, Male: 13) were part of the training program which was held on 4th and 5th of October 2014. Mr. Ramesh Krishnan City Project Officer, GoI-UNDP-Climate Risk Management Program delivered introductory speech in which he narrated the process of implementing CBDRM program in the selected 16 wards of the Thiruvananthapuram Municipal Corporation including conduct of various other training programs for volunteers of other task forces. Fr. Lenin Raj Director, TSSS delivered welcome address and Deputy Mayor of Thiruvananthapuram Municipal Corporation Shri. Happy Kumar inaugurated the training program

Inauguration

Deputy Mayor Sri. Happy Kumar in his inaugural address talked about relevance of disaster management training programs; current situation of Trivandrum district from the disaster point of view and the problem being faced by the local community and the ULB. He explained the necessity of creating such taskforces at grass root level to manage disaster at local level by reducing its impact. He shared in brief what shall be roles and responsibilities of Search & Rescue volunteers during a disaster. Ms. Vrindanath M.C, Project Fellow attached to the GoI-UNDP-CRMP delivered vote of thanks.

5.2 Training of urban community volunteers for epidemic control in 40 wards in Thiruvananthapuram city

On 28-November-2014, The Municipal Corporation has conducted half day workshop on Climate Linked Epidemic and Control Measures. Honorable Mayor of the MC Adv. K. Chandrika inaugurated the workshop and has released brochures on four hazards (Fire, Earthquake, Urban



Flood and Lightening) and handbook on the roles and responsibilities of volunteers of Community Based Disaster Risk Reduction. Two technical sessions were held namely; 1) Overview of Climate linked epidemics in Thiruvananthapuram City and Control measures which was facilitated by Dr. Sirabudeen K. M, DMO and 2) The potential and challenges of community based health surveillance for epidemic pattern and way forward, facilitated by Dr. Biju Soman, Additional professor, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences & Technology Thiruvananthapuram.

The programme started with the presentation of DMO who gave a brief picture of high epidemic rate prevailing in Trivandrum. Due to the high inflow of migrant population Kerala is prone to almost all kind of epidemics. The Trivandrum district is almost receptive to most of the epidemics due to the above said reason coupled with the proximity to sea. Even if a single case reported in the district can also be come under the criteria of epidemic. There is nothing to do with the size of the population. Climate change is also a manmade disaster of which we are going to face the repercussion in coming decades. He gave an intro of various disasters that affect globally and in special reference to Trivandrum district. The chances of Japanese encephalitis are very high in the city due to the poor waste management practices especially near to parvathy puthanar. He gave the status of major epidemics that broke out in the last 3 years. Leptospirosis, scrub typhus, malaria, chikungunea, dengue fever are some of the diseases that prevailing in Trivandrum city. He necessitated strengthening the prevalence mechanism of major epidemics in the city. Leptospirosis is the major disease which can be mostly seen among sanitary workers. Therefore adequate care and awareness should be given to them regarding personal protection.

In the second technical session, Dr. Biju Soman talked mainly related to the Participatory Health Surveillance It's a kind of public health initiative introducing new technologies in the field of community medicine. Health map a disease surveillance tool is globally accepted one in the field of participatory epidemiology which should be promoted in Kerala

too. There are different components in participatory disease surveillance program, ie, predictive surveillance component, civic engagement component and health communication component. There are some exclusive online systems which can be used for the above purposes free of cost. They are influenza net, flu tracking, flu near you, salud Boricua, dengue web etc. M Health is another surveillance tool which is having enormous potential in this field. It's an epidemic health record system , an open data initiative exclusively used for mapping epidemics in a region. He also discussed about the e health initiative, a pilot project in Trivandrum city by the ministry of health and its advantages in the health sector.

After both the technical session, the floor was open for discussion. Dr. Sirabudeen, DMO- improper sewerage system/sanitation facilities/poor maintenance of drainage source is increasing day by day and poses a major threat in the city. Shri Ajith Kumar, Health Inspector, Thiruvananthapuram Corporation- source reduction is important, waste management programme should be subsequently added in the building bye laws. Dr Reshmi, Epidemiologist, DMO Office- there is no proper communication regarding reporting of epidemics from corporation office to the IDSP Cell. Dr. Ummuselma, HO, Tvm MC- inter department coordination is essential in managing these environmental issues. We don't have any master plan to deal with our waste. it should be included in our planning process. Resilience should be built through increased capacity building, awareness generation, and training programs.



Dr Biju Soman, - currently there is gap in epidemic surveillance especially from the private medical institution. Therefore adequate mechanism needs to be strengthened. After the full implementation of e- health project, the system will get a revival. Dr Sirabudeen, DMO- Training of volunteers is essential to enhance the capacity building and awareness activities, which ultimately will help in reducing the epidemics rate in the city. Intersectoral coordination for cleaning the waste dumped in parvathy puthenar is essential. Mr Ramesh Krishnan, UNDP- Our city is in fluxed with a large number of migrant populations and at present there are no proper surveillance techniques in the city for these people. These people are host of various hyper endemic and sporadic diseases which may get pandemic if not surveyed properly.

Towards the end of the workshop, Dr. Ummuselma, Health Officer of Thiruvananthapuram Municipal Corporation summed up the deliberation and Ms. Vrindanath M.C, Project Fellow of SEOC delivered vote of thanks. The Municipal Corporation has awarded the work to MSSS for organizing training on epidemic control for ASHA Workers/JPHN of NRHM and ADS/CDS of Kudumbashree. Technical support for conducting the training program will be provided by NRHM and IDSP cell of DHS. A Micro-Terms of Reference has been signed between the Municipal Corporation of Thiruvananthapuram and Malankara Social Service Society.

Documents and materials prepared in the year 2014

1. Training needs assessment of medical sector
2. Draft CDMP of Thiruvananthapuram City
3. Handbook on disasters Vol 2 – in English & *Malayalam*
4. Handbook on ‘monsoon – drought preparedness activities’ – in English & *Malayalam*
5. SDMA Website up gradation
6. City corporation website up gradation
7. HVRA (draft) of Thiruvananthapuram City
8. IEC materials prepared by the city project on various hazards (fire, lightening, flood, earthquake) in *Malayalam*
9. Handbook on roles & responsibilities of CBDRM task forces in *Malayalam*



Materials prepared for Urban Risk Reduction in Thiruvananthapuram City



Community Task force members getting trained in CPR

Introduction

India is one of the most disaster prone countries in the world and much of the country's geographical area is prone to hazards such as cyclones, floods, landslides, droughts & earthquakes. According to the World Bank, direct losses from natural disasters have been estimated to an amount close to 2 per cent of India's GDP and up to 12 per cent of central government's revenue. The country's increased exposure to risks requires greater preparedness at National, State & District levels.

For nearly two decades, United Nations Development Programme (UNDP) has supported national and state governments in developing comprehensive disaster risk management programmes. This included strengthening legislative systems, implementing activities that help communities prepare for disasters, managing urban risk, planning for recovery and so on.

The project 'Enhancing Institutional and Community Resilience and Climate Change' supports efforts of the state government, communities and institutions to accelerate implementation of disaster risk reduction and climate change adaptation plans. The project is being implemented in the state of Assam, Andhra Pradesh, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Odisha, Sikkim, Tripura & Uttarakhand. In the state of Kerala, the project is steered by Dr Vishwas Mehta IAS, Principal Secretary, Revenue & Disaster Management Dept., GoK as the State Project Director & Dr Sekhar L Kuriakose, Member KSDMA as the State Project Manager. Mr Joe John George work as State Project Officer in the project under SEOC and Mr Ramesh Krishnan, City Project Coordinator under Thiruvananthapuram Municipal Corporation. The project is monitored by the Project Steering Committee at the state represented from various govt. departments.

Kerala is a multi-hazard prone state. The state is frequently ravaged by the disastrous consequences of coastal erosion, lightning, landslides, floods, drought and petro-chemical transportation related accidents. Other, relatively, less frequent but significant phenomenon capable of causing damage to life and property are windfall of trees, earthquakes, intense rainfall, pest attack, forest fire etc. The high density of population of 860 people/km² (2011 census), narrow roads, density of coastal population are factors that increase the vulnerability of the population to disasters.

The Annual work plan 2015 of Kerala is formulated in line with the 5 outputs of the project as follows:

- 1 Mainstreaming DRR/CCA
- 2 Urban Risk Reduction
- 3 Technical Assistance and Capacity Building
- 4 Knowledge Management
- 5 Community Resilience

1.A) Consultation at the state level to discuss the brief guidelines for nodal departments prepared for mainstreaming disaster risk reduction and climate change adaptation

The project steering committee of the state of Kerala, initiated the discussions with the nodal departments by sharing the concept paper much before the program so that each department representative becomes familiar to the topic for deliberation. The consultation was held on the 7th July 2015 at Hotel Mascot from 10:00 to 04:30pm.

The meeting started with an introduction and welcome by Dr Sekhar L Kuriakose, Member KSDMA and Head (Scientist), SEOC. He elaborated on the objectives of the consultation and the desired outcome of the meeting, followed by self-introduction of each participant.

Keynote Address

Dr Vishwas Mehta, Additional Chief Secretary, Revenue & Disaster Management *inter alia* State Project Director of GoI – UNDP project, delivered the Keynote address. He started off the address by thanking every participant, especially the UNDP, for pioneering this topic in the state. Later, he addressed the audience about vulnerability of Kerala to disasters & climate change. He also quoted some of his personal experiences in the case of



Additional Chief Secretary, Revenue & DM Dept. GoK, delivering the keynote address

of the disasters like floods and cyclones in Bihar and Orissa. He also opined that the biggest problem faced by our country is the density of population and Kerala is no exception. This ultimately is reflected in the number of casualties during a disaster event. He also mentioned that he has observed a lack of awareness among the government officials about the disaster management and even the basics of rescue and other emergency operations are not known by many. On mainstreaming, he urged the officials to bring guidelines, policies and plans which are achievable and executable. He requested the officials to start thinking out-of-the-box and find the solutions in the group discussions which will follow.

Technical Sessions

Mr Joe John George, State Project Officer of the GoI – UNDP project briefed about the operations of the project in the state and then he invited and introduced the facilitator of the days' sessions,

Shri Arun Sahdeo, UNDP to the participants. He further invited him and handed over the sessions to him.

Shri Arun Sahdeo started the session thanking the government of Kerala, revenue & disaster management department for hosting such a consultation meeting. He then made a presentation on 'Introduction to Mainstreaming DRR & CCA'. He started off with the basics of disaster management, quoting the lessons learned from major disasters of the country such as the Gujarat Earthquake, Bihar & J&K Floods. He also explained the difference



Shri Arun Sahdeo, UNDP facilitating the session

between hazards & disasters when a participant raised a clarification on the same. He commented on the poor institutional resilience to disasters, in our country. He gave an example of the major earthquake in Gujarat killed 15000 people in India, whereas, a similar earthquake of same magnitude which occurred in California succumbed to only one death.

Cities in the country show that they are increasing the risks to disasters rather than preventing them. Poor planning and faulty constructions are adding to the plight, he also emphasised on climate change, climate variability and climate change adaptation required to be considered while planning.

While talking about 'Mainstreaming', he said that Mainstreaming DRR & CCA into the development planning process essentially means looking critically at each activity that is being planned, not only from the perspective of reducing vulnerability of that activity from natural hazards and climate change impacts, but also from the perspective of minimizing that activity's potential contribution to hazard specific vulnerability. It is a process whereby DRR & CCA measures are fully institutionalized into the developmental policy and practices by all stakeholders at all levels. In the mainstreaming process, disaster risks and climate change impact considerations are mandatorily factored into development activities right from the planning stage in order to achieve sustainability and resilience.

The need of mainstreaming was also deliberated. The importance can be known from the background such as the DM Act 2005, National Policy on Disaster Management 2009, Five Year Plans, Scheme Appraisal, Flexi Funds – CSS, Support from MHA, Review of Schemes etc.

Mainstreaming DRR is a dynamic process; a) ensuring the development is protected through DRR elements and, b) ensuring that development does not increase the people's vulnerability to disasters.

He introduced two approaches towards mainstreaming which are

- 1) Mainstreaming into overall national development & planning
- 2) Mainstreaming into specific priority sectors through flagship schemes.

At the end of the presentation, Shri. Arun Sahdeo put forward the message that, prevention is always better than cure; and for the prevention of disasters the officials need to put utmost care in policy making and find solutions. Also, he suggested that national budgets may be enhanced by the departmental budgeting for disaster management. Also, certain examples like the idea of including triage doctors in every ICU's of every hospital, thus Hospital planning, School Planning, House planning etc. needs to be disaster management oriented. Early warning systems etc. need to be triggered by the officials, department wise. Also, keep record which will support the officials in post disaster audit. Create enabling environment – for policy, planning and for this the tools which can be used are the guidelines, checklists & technical support.

Dr. Sekhar L. Kuriakose, Member KSDMA, Head (Scientist) gave a short presentation on the topic 'Climate Change, Climate Extremes & Natural Hazards – Fiction, Facts & Future'. He started off his presentation with a slide introducing some old newspaper clippings on the subject of climate change; such as 'India most affected due to Climate Change– Stern', 'Climate Change hits mango production – The Hindu', etc. He then continued with the topics such as 'the bleak future of monsoon!' and how India is going to be affected, if monsoon drops. Everybody agrees that climate change will be evident in monsoons too. Change in monsoons is observed and recorded.



Dr Sekhar L. Kuriakose, Member Secretary, KSDMA speaks on climate extremes – Fiction, Facts & Future

Towards the end of his presentation, Dr. Sekhar displayed the HIGS – CC & NH Research + Policy & Governance method. He concluded by putting forward a food-for-thought to the government officials about whether a similar framework can be developed in the state? So that, Kerala state will have the observational data to prove and help in policy making and thus help the administrations with solid evidence.

There was a brief question & answer session about some topics in his presentation by the officials.

Group Discussion

Post lunch, the group reassembled in the hall, and the group activities on action planning for mainstreaming DRR & CCA were done under the supervision of Shri. Arun Sahdeo. Five groups

viz. Health, Urban development and housing, Agriculture/horticulture & animal husbandry, Education and Water & Sanitation were formed on the basis of different departments participated and a set of questionnaire was provided to each group to be filled after discussions.

The discussion had two components

- a) To review and rate the existing practices in the department in a scale of 0-5, and identify the issues against each review point.
- b) To identify three major issues out of the many identified and suggest methods to address the same.



Group discussions – Action plan for each Dept.

After the presentations by the group representatives, Shri. Arun Sahdeo thanked each group for their enthusiastic participation in the programme. He further thanked the State and officials who organized this meeting.

Plan of Action

- Follow-up meeting with the representatives of various departments to make further department wise action plan in the State.
- Encourage D.M plan preparation for each department.
- Nominating one nodal officer from each department for disaster management
- Inter-departmental meeting on DRR & CCA

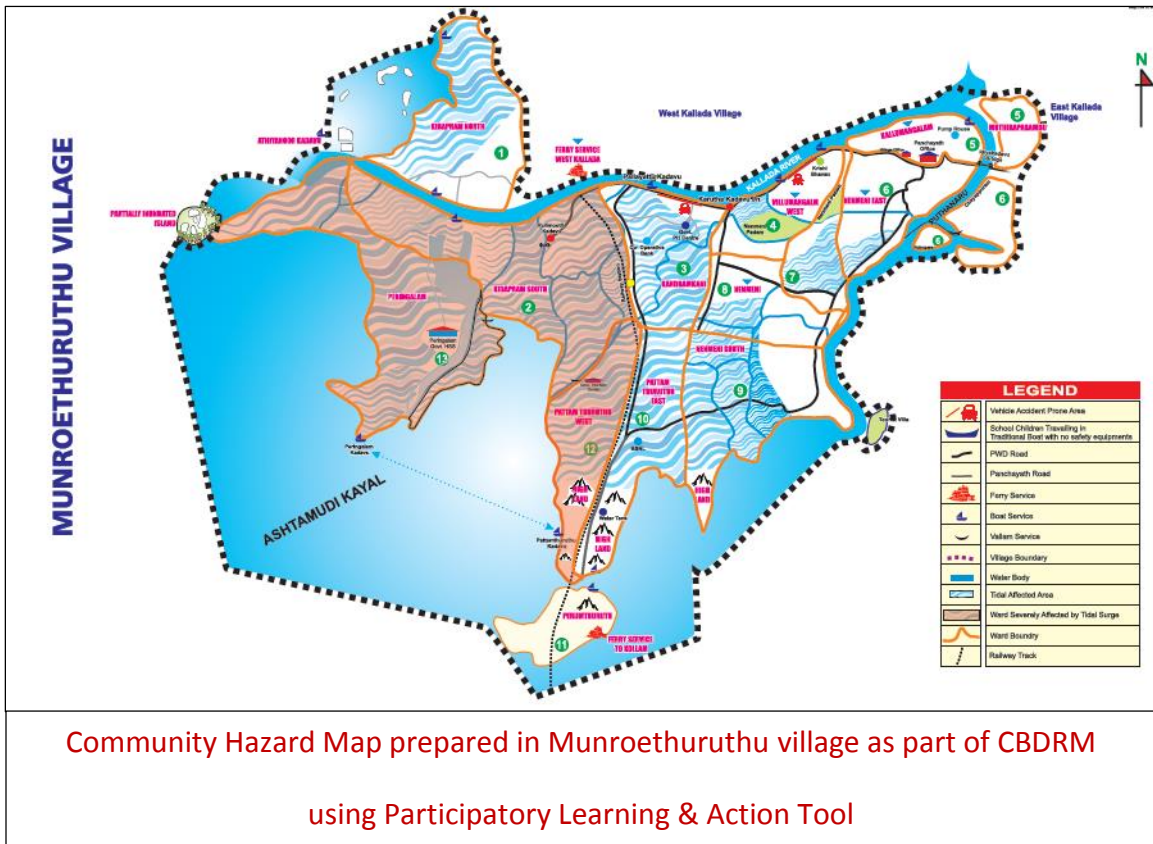
Consolidated feedback by participants in %

Sl.No	Questions	V.Bad	Bad	OK	Good	Excellent
1	Relevance of the theme of the consultation			20	33	47
2	Technical Sessions & Presentation			14	33	53
3	Group Discussions		7	7	53	33
4	Resource materials distributed	7	7	33	40	13
5	Was this program helpful for you?			20	47	33

6	Will you influence your department/agency in mainstreaming DRR &CCA ?			20	33	47
7	Venue & Lunch			20	33	47

Further comments by the Participants

- Requires follow -up programmes
- More Technical Presentation would have been good
- Mainstreaming to be implemented in the state as early as possible with specific requirement of the state such as nuclear disaster, Dam failure etc.
- More resource materials pertaining to this subject would have given in a pen drive.



THIRUVANANTHAPURAM CITY ACTIVITIES OF 2015

2.A) Finalisation of the CDMP and sharing it with the stakeholders

The Ministry of Home Affairs, Govt. of India and United Nations Development Programme in 2015 had approved four activities for the city namely 1) Finalization of City Disaster Management Plan; 2) Development of Early Warning Action Plan; 3) Training in urban community volunteers in 40 wards and 4) Technical assistance for training of urban community volunteers/Knowledge management with a total allocation of Rs 7,31,721/- (Seven lakh thirty one thousand seven hundred and twenty one rupees only)

Finalization of City Disaster Management Plan and sharing it with stakeholders:

In the year 2011 under GoI-UNDP-Disaster Risk Reduction-Urban Risk Reduction Programme, the Thiruvananthapuram Municipal Corporation had prepared a sketch of City Disaster Management Plan. In 2013 under the new programme GoI-UNDP-Climate Risk Management Programme in Urban Areas through Disaster Preparedness and Mitigation, UNDP had hired Dr. Jyoti Parikh as National Consultant to review the existing CDMP. The consultant visited the city of Thiruvananthapuram in the month of July 2013



**Hon'ble Mayor, Thiruvananthapuram
interacting with the participants**

and interacted with key departments including people's representatives and officials of the Municipal Corporation of Thiruvananthapuram and subsequently submitted review comments and recommendations to UNDP and it was shared with the city administration for finalizing the CDMP.

In July 2015, based on the remarks provided by the consultant Dr. Jyoti Parikh, the project completed the final version of CDMP with the help of a local consultant Ms Vrindanath MC. Details were sought from all the departments and agencies for completing the process including a consultation meeting in the city. The final version of CDMP was approved by the District Disaster Management Authority of Thiruvananthapuram.

2.B) Development of Early Warning Action Plan for Thiruvananthapuram Municipal Corporation

UNDP, in the year 2013 had given national consultancy to TARU- Leading Edge based at Gurgaon to review the existing systems, status and protocol of dissemination of early warning in the cities covered under USAID supported GoI-UNDP-Climate Risk Management Programme in urban areas through Disaster Preparedness and Mitigation. The team from TARU visited Thiruvananthapuram in October 2013 and interacted with representatives of 17 government departments and agencies. TARU Leading Edge completed the assigned task and in partnership with SEOC had organised a half day consultative workshop on outcome of the study done in Thiruvananthapuram city on EWS. Subsequent to this, UNDP had shared review report and recommendations prepared by TARU Leading Edge and as a follow up of it, the City Municipal Corporation hired Ms. Vrindanath. M. C as Consultant to prepare Early Warning Action Plan. The Consultant had started preparing Early Warning Action Plan by referring to the reflections and recommendations and the final report will be completed by 10th February 2016.



2.C) Training in urban community volunteers in 40 wards:

The Municipal Corporation had published advertisement in the newspaper on 16th of November 2014 inviting expression of interest from NGO's to implementing CBDRM – Community Based



City Project Coordinator facilitating the session

Disaster Risk Management Programme in the wards of the municipal corporation. Two organisation's namely MSSS – Malankara Social Service Society, Pattom and Vizhinjam Motherport Action Samithi, Thiruvananthapuram applied. Applications received from both the organisations were assessed and selected Malankara Social Service Society based on their previous experiences in implementing Community Based Preparedness

Programmes and other Disaster Management programmes. MoU was signed between Thiruvananthapuram Municipal Corporation and MSSS on 15th of December 2013. The City Project Coordinator conducted two rounds of induction programmes for coordinators and field animators of support organisation- MSSS on 25th January 2015 which was attended by 13 staffs and 7th March 2015, attended by 33 staffs. The sessions includes disaster management act 2005, what is disaster managements, its concept and terminologies, types and classification of hazards, phase of disaster management, components of disaster management. The CPC made a detail presentation on CBDRM – its concept, why CBDRM, principles, process and strategies of implementing a community managed disaster management programme.

Ward level community awareness meeting:

During the period 2015, support organisation MSSS had organised 38 ward level awareness generation meetings and had formed four types of ERT's - Emergency Response Teams (Task Forces) namely; 1) Search & Rescue; 2) Evacuation; 3) Shelter Management

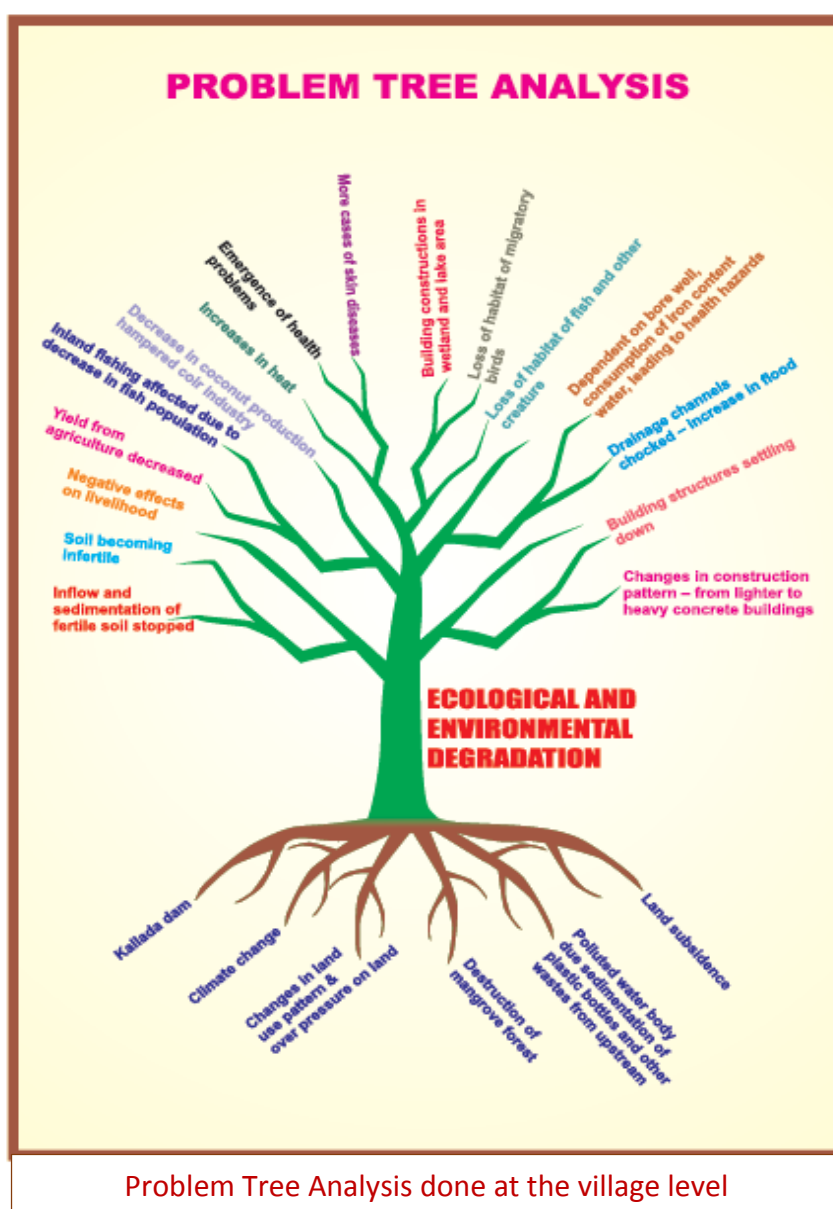


and 4) First Aid in those wards. 503 persons (Male: 199 & Female: 304) had attended the awareness meetings. Key issues discussed in the sensitization meeting are; general orientation on DM and specific discussion on deliberation on CBDRM like; scope and relevance of CBDRM, principles of CBDRM, Process of CBDRM, criteria and formation of four task forces (Search/Rescue, Evacuation, First Aid and Shelter Management), formation of Ward Disaster Management Committee, preparation of social/resource, vulnerability and evacuation maps using PLA tool. Details of wards where awareness meetings were organised are mentioned in the table below:

Sl. No.	Name of ward	Ward Number	Meeting Date	Male	Fem ale	Total
1.	Kunnukuzhi	26	7/06/2015 & 13/06/2015	39	26	65
2.	Mudavanmugal	47	23/06/2015	31	27	58
3.	Thrikkannapuram	48	14/06/2015	10	13	23
4.	Punnakkamugal	51	13/06/2015	9	54	63
5.	Punchakari	57	28/06/2015	9	14	23

6.	Venganoor	59	20/06/2015	14	59	73
7.	Mulloor,	60	21/06/2015	0	85	85
8.	Kottapuram	61	21/06/2015 & 20/09/2015	25	44	69
9.	Harbour	63	21/06/2015	27	38	65
10	Kannammoola	94	14/07/2015	05	13	18
11	Vellar	64	26/07/2015	18	24	42
12	Vallakkadavu	88	29/07/2015	05	49	54
13	Kuriyathi	73	11/08/2015	10	08	18
14	Aakulam	96	22/08/2015	14	08	22
15	Ulloor	06	12/09/2015	09	12	21
16	Edavacode	07	12/09/2015	15	09	24
17	Manikkomvilakom	75	22/09/2015	08	16	24
18	Anamugham	95	4/10/2015	10	46	56
19	Pettah	93	3/10/2015	17	20	37
20	Kairkkakom	91	10/10/2015	12	61	73
21	Estate	53	10/10/2015	23	24	47
22	Thycaud	28	08/10/2015	16	18	34
23	Kamaleswaram	48	04/10/2015	18	20	38
24	Pattom	17	13/10/2015	20	08	28
25	Sreevaraham	79	11/10/2015	18	19	37
26	Cheruvaikkal	5	19/07/2015	6	30	36
27	Medical College	16	06/12/2015	18	6	24
28	Kadagampalli	92	24/09/2015	18	59	77
29	Nemom	49	26/09/2015	13	26	39
30	Ponnumangalam	50	12/07/2015	12	20	32
31	Valiyashala	43	11/07/2015	17	17	34
32	Thampanoor	81	09/07/2015	17	16	33
33	Muttathara	78	23/09/2015	14	26	40

34	Poonkulam	58	05/07/2015	12	20	32
35	Poojappura	42	30/09/2015	27	35	62
36	Jagathy	44	11/07/2015	16	24	40
37	Manacaud	72	25/07/2015	18	26	44
38	Fort	80	11/07/2015	17	29	46
TOTAL				199	304	503



PLA – Participatory Learning and Action Exercise



The partner NGO had also conducted PLA (Participatory Learning and Action) Programmes in 14 wards of the Municipal Corporation in which 381 person's (Male: 149 & Female: 232) attended. Members of ERT's (Emergency Response Teams) and ward DM Committee and few other local leaders participated in the PLA meeting. PLA process starts with an introduction about PLA and the

tools which are generally being used in community based disaster management programme. Few of the tools which were introduced were; Resource/Social Map; Hazard Map and Evacuation map. PLA facilitator said the community needs to identify different types of resources which are available in a particular. People shall have clear understanding of resources both human and materials which are available in the locality. After orientation, the facilitator helped the participants to prepare the maps mentioned above with active participation. Below mentioned are the name of wards and participation detail.

Sl. No.	Name of ward	Ward No.	Date	Male	Female	Total
1.	Punchakari	57	04-07-2015	11	16	27
2.	Thrikannapuram	48	05-07-2015	14	17	31
3.	Kannammoola	94	14-07-2015	05	13	18
4.	Venganoor	59	16-07-2015	14	18	32
5.	Vellar	64	26-07-2015	18	24	42
6.	Vallakkadavu	88	29-07-2015	05	49	54
7.	Kuriyathi	73	11-08-2015	10	08	18
8.	Aakulam	96	22-08-2015	14	08	22
9.	Ulloor	06	12-09-2015	09	12	21
10.	Edavacode	07	12-09-2015	15	09	24
11.	Harbour	63	18-09-2015	10	8	18
12.	Mulloor	60	21-09-2015	08	15	23
13.	Manikkomvilakom	75	22-9-2015	08	16	24
14.	Kottappuram	61	20-9-2015	08	19	27
TOTAL				149	232	381

Capacity building and training programme:

During the reporting year, the partner organisation – MSSS (Malankara Social Service Society) had organised 10 cluster training programmes (one day duration) for building capacities of ERT’s – Emergency Response Team members to manage disasters locally and support the local and district administration. 274 ERT members of which 65 males and 209 females attended the training programme. The training programmes were conducted with resource support from technical agencies and experts. First Aid training programme was facilitated by IIEMS – Indian Institute of Emergency Medical Services, Kottayam, which is associated to AHA- American Heart Association. Training in Search/Rescue and Evacuation was facilitated by master trainers of Kerala Fire and Rescue Services. Details of training programmes conducted are as follows.



A participant practicing CPR during the First Aid Training.

Cluster No.	Training Date	Venue	Wards Covered	Total participants	Major topics covered
Domain: “Search and Rescue”					
Training Agency: Kerala Fire and Rescue Services, Thiruvananthapuram					
1	03-12-15	C.V. Memorial Library Hall, Vizinjam	Mullur, Kottapuram, Venganur, Harber, Vellar & Poonkulam	25 (M: 4 & F: 21)	<ul style="list-style-type: none"> Need and necessity & How to undertake S/R Methods to rescue people from water and in land
4	06-12-15	Valiyasala Samajam Hall, Valiyasala	Jagathi, Thycadu, Thampanoor & Valiyasala	24 (M:8 & F: 16)	<ul style="list-style-type: none"> Different types of rescue techniques Concept of Disaster Kit
Domain: “Evacuation”					
Training Agency: Kerala Fire and Rescue Services, Thiruvananthapuram					

3	07-12-15	Kavithilakan Memorial hall, Manikkavilakom	Kamaleswaram, Kuriyathi, Manacadu, Sreevaraham, Fort Muttathara, Vallakadvu & Manikyavilakam	27 (M: 9 & F: 18)	<ul style="list-style-type: none"> • What is an evacuation • Why an evacuation is recommended • Personal safety while indulging in evacuation • Importance of personal telephone directory • Adherence to community evacuation plan • Family disaster kit and • Roles and responsibilities of Early Warning Team
1	08-12-15	C.V. Memorial Library Hall, Vizinjam	Mullur, Kottapuram, Venganur, Harber, Vellar & Poonkulam	27 (M: 1 & F: 26)	
5	09-12-15	Pettah LP School, Pettah	Karikkakom, Kadakampally, Pettah, Kannamula, Kunnukuzhy & Pattom	27 (M: 9 & F: 18)	
Domain: “Basic Life Support- First Aid”					
Training Agency: IEMS – Indian Institute of Emergency Medical Service					
1	28-Nov-15	C.V. Memorial Library Hall, Vizinjam	Mullur, Kottapuram, Venganur, Harber, Vellar & Poonkulam	22 (M: 4 & F: 18)	<ul style="list-style-type: none"> • What is BLS • Need of BLS • CPR – Adult & Infant • Foreign Body Airway Obstruction- Adult & Infant • First aid • Triage Management & Mass Casualty
4	05-12-15	Valiyasala Samajam Hall, Valiyasala	Jagathi, Thycadu, Thampanoor & Valiyasala	21 (M: 8 & F: 13)	
5	06-12-15	Pettah LP School, Pettah, Trivandrum	Karikkakom, Kadakampally, Pettah, Kannamula, Kunnukuzhy & Pattom	25 (M: 15 & F: 10)	
6	08-12-15	Sisumandir, Cheruvakkal, Trivandrum	Akkulam, Cheruvakkal, Ullur, Anamugham,	27 (M: 4 & F: 23)	

			Edavacode & Medical college		
3	09-12-15	Kavithilakan Memorial hall, Manikkavilakom	Kamaleswarm, Kuriyathi, Manacadu, Sreevaraham& Fort Muttathara, Vallakadvu, Manikyavilakam	49 (M:3 & F 46)	

Consultative meeting with councilor's on CBDRM- Community Based Disaster Risk Management Programme

On 16th of May, half day consultative meeting on CBDRM (Community Based Disaster Risk Management Programme) was organised at conference hall of the Municipal Corporation in which 27 people including councilors and NGO field animators attended. The meeting was chaired by respected Mayor Adv. K. Chandrika. City Project Coordinator Mr. Ramesh Krishnan shared the purpose of the meeting. He said that CBDRM will be implemented in 40 new wards with support of NGO Malankara Social Service Society. Detail technical session on Disaster Management and DM Act 2005 was handled by City Project Coordinator Mr. Ramesh Krishnan whereas State Project Officer, Joe John George took session on CBDRM- Community Based Disaster Risk Management Programme. Towards the concluding part of the meeting, City Project Coordinator introduced Malankara Social Service Society who will be implementing CBDRM in 40 new wards. Programme Officer of MSSS narrated a brief profile of MSSS and offered all his support for the programme.

3.A) Technical assistance for training of urban community volunteers/Knowledge management:

The Municipal Corporation had published Expression of Interest in the newspaper on 7th June 2015 for hiring of consultant to prepare CDMP (City Disaster Management Plan) and Early Warning Action Plan. The City Municipal Corporation had received single application from development consultant Ms. Vrindhanath M.C. On 2nd July 2015, The Municipal Corporation of Thiruvananthapuram signed MoU with Ms. Vrindanath. M.C and first installment of Rs. 25,000 was released. The Consultant finished preparation of CDMP and copy of the document was submitted to the MC and thus the Municipal Corporation had released 2nd installment of Rs. 15,000 to the consultant. The consultant is now engaged in preparing EWS – Early Warning Action Plan for the city of Thiruvananthapuram. The work will be completed by 10th of February 2016.

3.B) Development of the Module and TOT for enhancing the role of medical / health professionals towards disaster related emergencies based on the TNA including health professional in Thiruvananthapuram city

In the Annual Work Plan of 2014, Training Need Assessment was done for the entire medical/health sector of the state and a comprehensive report was handed over to the Directorate of Health Services. One of the activities recommended in the report was to ‘enhance the capacity of officials working in the govt. hospitals’. After many consultations and discussions with the concerned department, a two day training was designed titled ‘ENHANCING THE ROLE OF MEDICAL / HEALTH PROFESSIONALS TOWARDS DISASTER RELATED EMERGENCIES’. State Institute of Health & Family Welfare (SIHFW), Thycaud, Thiruvananthapuram being the ATI of health dept., GoK, the training was facilitated by the institution with the cooperation and financial support of GoI-UNDP Project. The training programme was held on 21st & 22nd of December 2015 at the institute premises.

OBJECTIVES:

- a) To enhance the capacity of casualty medical officers to respond to mass casualties due to road accidents or related emergencies.
- b) To develop a team of medical officers in the state as Trainers to impart subsequent trainings in the districts.

INAUGURATION

The training was inaugurated by Dr Ramesh R, Director, Directorate of Health Services, Govt. of Kerala. The title of training was ‘enhancing the role of medical professionals of the state



Dr Ramesh R, Director, DHS inaugurating the training programme.

towards disaster related emergencies'. The participants were invited from 12 districts of the state who are handling the casualties of the District/Taluk Govt. hospitals. 25 doctors participated for this training programme.

The sessions were facilitated by Dr Sekhar L Kuriakose, Member – SDMA, Head (Scientist), Dr Santosh Kumar S.S, Asst. Professor, Medical College Hospital, Thiruvananthapuram, Dr Rajendran, Asst. Professor, MCH and Dr Ansar Shawkath Ali, Asst. Professor, Dept. of Anesthesia

Sessions Covered

DAY 1

- 1) Orientation on Disaster Management in the State.
- 2) Introduction to TLS
- 3) Presentation on Triage, Video
- 4) Presentation on Primary Survey & Secondary Survey
- 6) Video on advanced airway
- 7) Presentation & Video on thoracic trauma
- 8) Video & Workshop on Basic Life Support
- 9) Workshop & Presentation on advanced airway
- 10) Presentation on shock management

Day2

- 11) Video on central line & intra osseous
- 12) Video on spine immobilization & log rolling
- 13) Video & Workshop on FAST
- 14) Workshop on spine immobilization and logrolling
- 15) Presentation on head & spine injuries
- 16) Presentation on abdominal injuries
- 17) Video & Workshop on splinting & plastering
- 18) Presentation on extremity injuries & compound fractures
- 19) Presentation on transfer of patients
- 20) Video & Workshop on scenario
- 21) Feedback & Valedictory



Participating Doctors of the Training

Technical sessions included trauma care, basic life support, thoracic trauma, shock management, spine immobilization & logrolling, head & spine injuries, abdominal injuries, splinting & plastering etc. The resource persons were from Thiruvananthapuram Medical College Hospital. Dr Santosh Kumar S.S (Asst. Professor, MCH) was the chief trainer accompanied by his team. The

training provided a hands-on experience to each participant as there were enough mannequins to conduct practical sessions. Relevant videos were also screened related to the topics covered. The names of the doctors have been entered into the database and they would be used to take classes in their own districts in the future for casualty medical officers. During the feedback session, all the participants appreciated the training and the impact of the same to handle mass casualties and accidents as Kerala has very high volumes of accidents and accident deaths/fatalities.



Participants receiving hands-on training

As one of the objectives of conducting the training was to develop a team of experts to respond towards emergencies, all the 25 doctors participated were given hands on training. They were trained on all the aspects of trauma care, triaging, BLS, ALS etc. These trainees can facilitate trainings at the district level from where they represented. The list of the participants was shared with the respective district collectors inter alia Chairperson of District Disaster Management Authority so that they can utilize their services to train others from the district.

Dr Sanil Kumar (Asst. Director, SIHFW) coordinated the training on behalf of the institute with the support of Dr Neena Rani G, Principal, SIHFW along with Mr Joe George, State Project Officer of GoI – UNDP project of SEOC, Dept. of DM, Govt. of Kerala. Participation Certificates were distributed to each participant during the valedictory function.



Kerala State Institute of Health and Family Welfare (KSIHFW) & Collaborating Training Institute (CTI) of NIIHFW

Thycaud, Thiruvananthapuram

“TOT TRAINING for Enhancing the role of Medical/Health Professionals towards Disaster Related Emergencies based on the Training Needs Assessment” under UNDP Scheme 2015-16
21-12-2015 to 22-12-2015



Participants of the Training

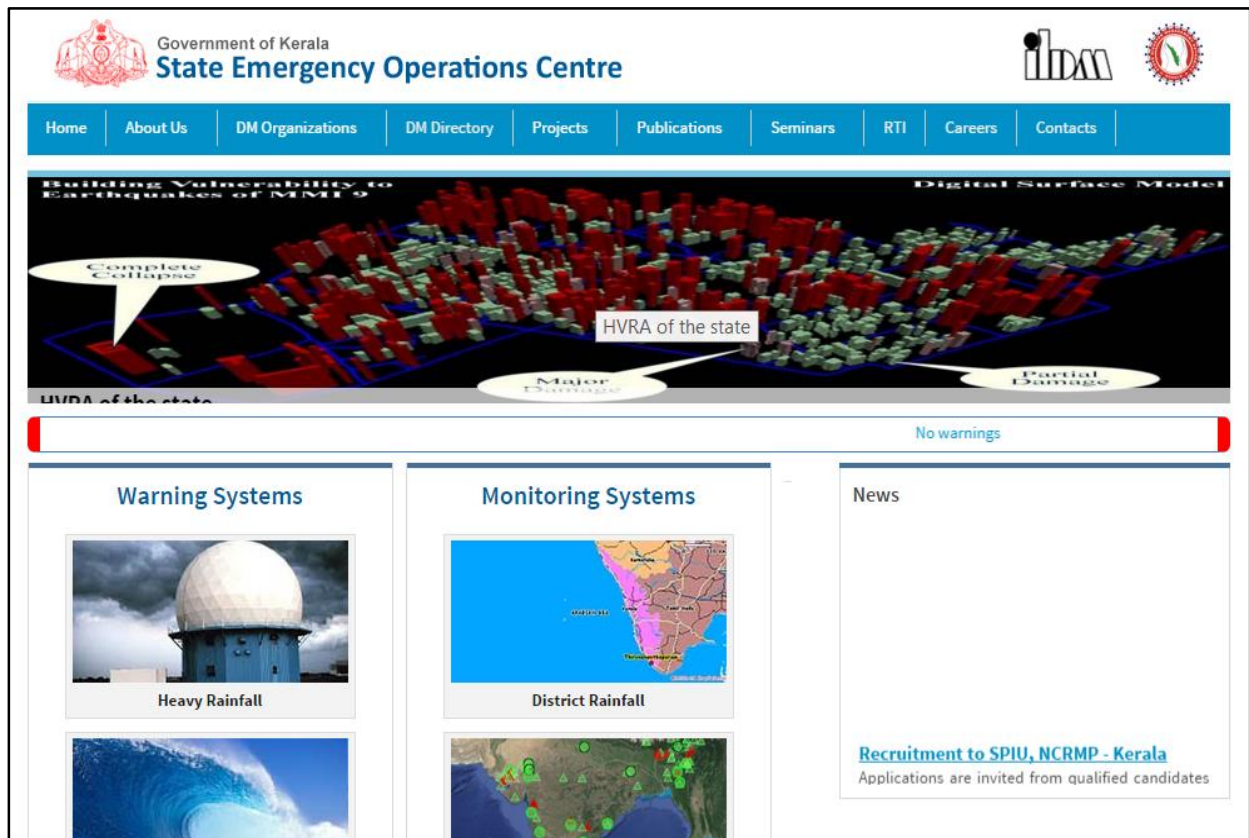
Sl.No:	Name	Designation & Address	District	Phone No:
1	Dr P Ajitha	MO (ic), Civil Surgeon, CHC Puthenthope	Thiruvananthapuram	9446076350
2	Dr Dain M George	CMO, THQH, Kodungallur	Thrissur	8113968244
3	Dr Sreerag SR	Asst. Surgeon, DH, Kannur	Kannur	9496344639
4	Dr Shahul Hameed. S	CMO, THQH, Punalur	Kollam	9995384833
5	Dr Yoosafali. K	CMO, DH, Nilambur	Malappuram	9846981351
6	Dr Titu S.N	PHC, Puthige	Kasaragod	9037411200
7	Dr Manoj Mony	RMO, GH	Kollam	9495627348
8	Dr Arunnath Somanathan	Asst. Surgeon, GH	Thrissur	9895662279
9	Dr Arun P Ajith	CMO, TH, Chalakkudy	Thrissur	9900416567
10	Dr Sreejith E.S	Jr Consultant, Ortho, THQH, Ottapalam	Palakkad	9995024437
11	Dr Indu S	CMO, DH, Perinthalmanna	Malappuram	9446557863
12	Dr Shabeer M.S	Jr Consultant, Ortho, THQH, Alathur	Palakkad	9895205264
13	Dr C. Sureshkumar	Consultant, THQH, Parasala	Thiruvananthapuram	9447205913
14	Dr Suraj S	CMO, Asst. Surgeon, D.H, Aluva	Ernakulam	9605505500
15	Dr Anupama Vijayan	CMO, GH	Ernakulam	9446564643
16	Dr Sruthy K.V	CMO, GH	Ernakulam	9447262392
17	Dr Sangeeth Sivankutty	Asst. Surgeon	Kollam	9447959145
18	Dr Achamma A.S	Civil Surgeon, CHC, Poovar	Thiruvananthapuram	9847512417
19	Dr Reshmi K.P	CMO, Asst. Surgeon, D.H, Thalassery	Kannur	9656804580
20	Dr Kayimal C.M	Asst. Surgeon, PHC, Mogvalputhur	Kasaragod	9605866351
21	Dr Anoop M	Asst. Surgeon, GH, Adoor	Pathanamthitta	9947647426
22	Dr Anas Salil	RMO, GH	Alappuzha	9447807493
23	Dr Sreejesh N	JMC, THQH, S. Bathery	Wayanad	9895215306
24	Dr Muhammed Basheer V	GH, Manjeri	Malappuram	9895383096
25	Dr Jineeb PMK	Asst. Surgeon, GH, Vadakara	Kozhikode	9400544405

IV. A) Strengthening of the Online Repository

Under this activity in this reporting year, the project continued the redesigning process which was initiated in 2014. The task was assigned to Kerala Small Industries Development Corporation (KSIDCO), a government of Kerala undertaking.

During the reporting year, the project hired Ms Sreeshma P for a short period to develop the content for the website along with data base management, resource bank, content editing. She also was engaged in updating the data of India Disaster Resource Network (IDRN). In the reporting year, all the districts of the state have updated their data online and the data is available online on idrn.gov.in.

Additionally, temporary hosting of the site disasterlesskerala.org was done and email was configured.



V. A) Participatory risk mapping and DM plan preparation involving communities in participatory risk assessment/DM plan preparation that takes into consideration both disaster risk and climate change - to be piloted in two villages of project districts.

Progress on Activity

Under this activity, Community Based Disaster Risk Management (CBDRM) tool is being used in the two villages of project districts viz. Peringara village of Pathanamthitta district & Munrothuruthu village of Kollam district. These villages were suggested by the respective district collectors *inter alia* chairperson of DDMA. Both these villages are drought prone areas. The area is more vulnerable due to the incidents of subsidence and settling of the houses in these villages.

Interventions

Consultation meeting with key persons of both the villages was convened on 19th and 22nd August 2015 to discuss about scope and interventions of the programme. In the Grampanchayat consultation meeting, Village Disaster Management Committee (VDMC) was formed and wards of the Grampanchayat coming under the revenue villages were divided into zones for conducting zonal wise awareness meetings, formation of Emergency Response Teams and conduct of training programme. In Munroethuruthu, Kollam zonal meetings in all the three zones were organised and ERT – Emergency Response Team has been constituted and training to volunteers of First Aid ERT and mapping exercise using PLA – Participatory Learning and Action tool is completed. In Peringara, Pathanamthitta zonal meetings in all the three zones have been completed and ERT – Emergency Response Team formation is completed in one zone. ERT formations in other two zones are under progress and it is expected to complete the process by fourth week of January 2016.

Risk Mapping

On 18th of December, the facilitating NGO organised risk mapping exercise in Munroethuruthu Grampanchayat. Ward members, Kudumbashree CDS, Youth, village elders and other key informants attended the mapping exercise. The facilitating NGO made huge map of the village in A1 size paper and with the help of villagers had prepared two different kinds of maps namely, resource/social map and hazard maps. All the resources of the village and area prone to flooding due to tidal waves, area prone to road accidents and boat accidents and other vulnerable areas were marked in the maps which were prepared.



Community engaged in mapping exercises at Munrothuruthu, Kollam Dist.

Training and Capacity Building Programme

One day training on First-Aid to village volunteers

The facilitating NGO had organised one day training on “First Aid” for members of ERT – Emergency Response Team on 31-Dec-2015 at VHSS, Munroethuruthu. Technical sessions of the training programme were handled by shri. G Rajasekharan Nair and shri Vishnu, both master trainers of IIEMS – Indian Institute of Emergency Medical Services based at Kottayam. IIEMS is a specialized training agency having association with American Heart Association. Grampanchayat President shri Binu inaugurated the training programme and felicitated by Block Panchayath member Smt. Thankamani Sasidharan and Village Officer. The training programme was attended by 42 volunteers of which 09 were male and 33 female. Topics covered in the training programmed were

- 1) Introduction to First Aid;
- 2) CPR – Adult and Infant;
- 3) Choking- Adult and Infant and
- 4) Management of strokes.

The trainers of IIEMS demonstrated all the techniques and the trainees practiced the techniques one by one. The training programme concluded with a feedback session and vote of thanks delivered by Ms. Sibi. A Vice President of facilitating NGO Foundation for Development Action.

One day training on Shelter Management to village volunteers

The facilitating organisation on 15th Jan 2016 had organised one day training on Shelter Management for member of ERT- Emergency Response Team of Munroethuruthu village. The training programme was handled by Ms. Sibi. A vice president of FDA and Mr. Ramesh Krishnan, City Project Coordinator of GoI-UNDP-Climate Risk Management Project, Thiruvananthapuram. The training programme was attended by 30 volunteers of which male were 08 and female were 22. Munroethuruthu Grampanchayat Vice President inaugurated the training programme in the presence of three other ward members. Topics covered in the training programme were based on Humanitarian Charter and Minimum Standards (SPHERE Standards) are; 1) Meaning and Scope of Shelter Management; 2) Roles and Responsibilities of different agencies (Govt. Departments; International and National Organisation’s and local NGO’s); 3) Identification and Criteria for selection of shelter; 4) Shelter Staffing Pattern; 5) SWOT Analysis of existing two shelters of the village; 6) Minimum Standards of Relief – Supply of Food, Clothing and Water & Sanitations. The input sessions also includes short documentary on “Shelter” of Haiti – the caribbean nation where in 2010 an earthquake of magnitude of 7 brought huge devastation and killed 2.2 lakhs people and injured thousands and how the local government and international organisation’s had involved in Shelter redevelopment and in Livelihood restoration. Video on sanitation option was also screened in the training programme. In the valediction session, the trainees shared their positive feedback about the training programme. One of the ward member said that, if was not

aware about the roles and responsibilities of various government departments for disaster relief and rehabilitation, but the training programme had given much information on which departments to be contacted for management of different types of disasters. People shared their good and bitter experiences of staying in shelter. A village elder said he learned many things from the training programme which can be put into practice next time when government departments open shelter in their village. Ms. Sibi A delivered vote of thanks and concluded the training programme.

Activities carried forward from Annual Work Plan 2014

Finalization of city wide Hazard Risk and Vulnerability Analysis for Thiruvananthapuram



Hon'ble Mayor of Thiruvananthapuram receiving the HVRA report from Dr Sekhar.

The Municipal Corporation of Thiruvananthapuram had signed MoU with SEOC- State Emergency Operation Centre, formerly known as HVRA Cell on 28-December 2013 with a total cost of Rs. 20, 40, 000/- to conduct study on Hazard, Risk and Vulnerability aspects of Thiruvananthapuram city. It took the organization two years and one month to complete the preparation of HVA report. Draft vulnerability report was submitted to the Municipal Corporation of

Thiruvananthapuram by SEOC on 4th April, 2015 and final HVA report was submitted to the honorable Mayor of Thiruvananthapuram city in the month of January 2016.

Training of urban community volunteers for climate linked epidemic control:

Towards the middle of 2014, on the special request of State Project Steering Committee, MHA/UNDP had approved the activity “Training of urban community volunteers on climate linked epidemic control”. To execute the training programme, the Municipal Corporation had entrusted Malankara Social Service Society to make all logistic arrangements like; training hall, food/refreshment, providing travel allowances to training participants etc. Three batches of training programmes for ASHA workers, ICDS workers, JPHN and Kudumbashree ward health volunteers with technical and resource support from National Health Mission and District Medical Office were conducted in which 135 persons attended. Technical sessions includes lecture on DM Act, Disaster



Session on climate linked epidemic control in progress

Management- key concepts, and video clippings on various hazards; management of water borne, air borne, vector borne, Community based health surveillance for epidemic control and scenario based group exercise on preparation of community action plan to curb and manage spreading epidemics at local level.

b) Other activities

A. Advanced IRS training programme at YASHADA, Pune:

UNDP had organised advanced course on IRS – Incidence Response System on Planning, Operation and Logistics at YASADA, Pune for officials who had earlier successfully completed their Basic and Intermediate course. As per the instruction from NPC – National Project Coordinator UNDP, the City Project Coordinator liaison with line department in the city of Thiruvananthapuram for nominating officials to attend the advanced course at YASADA. Following are the officials attended the course at YASADA Pune.

Name of trainees	IRS Course	Office Represented
Mr. Anil Kumar N. V.	Planning	Thiruvananthapuram MC
Mr. Sasikumar. P.K.	Planning	Thiruvananthapuram MC
Mr. Francis Raj	Planning	Thiruvananthapuram MC
Dr. Muraleedharan Pillai. C	Operation	Department of Health
S. Ajith Kumar	Operation	Thiruvananthapuram MC
Dr.Ummuselma	Logistic	Thiruvananthapuram MC
J. Jayraj	Logistic	Rapid Response and Rescue Force
Asok Kumar	Logistic	Kerala Police

B. Strengthening of City Emergency Operation Centre using local fund:

The Municipal Corporation of Thiruvananthapuram had submitted project proposal to DPC – District Planning Committee to strengthen the city disaster management cell functioning under the aegis of UNDP by procuring emergency equipments and other capacity building training programme for MC staffs. The proposal was wetted and DPC had approved Rs. 32 Lakh of which Rs. 15 Lakh is for procurement of emergency equipments. The City Project Officer had extended all technical and managerial support for preparing technical specifications of the equipments. Twice the engineering department had floated e-tender and published news in local vernacular. In second e-tendering only one supplier applied. The Procurement Committee in its meeting held on 3rd October 2015 had decided to go for manual re-tendering by categorizing the equipments into electrical, mechanical, fire safety equipments, rescue equipments and others. CPC had categorized the equipments which are to be purchased as per categories and had submitted the file to the

Engineering Department for re-tendering. The concerned department of the MC returned and asked the City DM Cell to provide item wise price list of the equipments.

The City Corporation has taken step to train 60 selected staffs of the health department (Grade I and II and Contingent Health Workers) to work as rescuers during emergency. A request letter was sent to The Director General, NDRF New Delhi to provide training to MC staffs on search/rescue focusing on flood and other human induced disasters. The request of the MC was approved and NDRF Arakkonam had contacted the City DM Cell to furnish more details. Subsequently, the City DM Cell sent details of training requirements to NDRF Arakkonam which was accepted.

Project activities on Media

Corporation, panchayat to join hands to tackle disasters

Hazard and Vulnerability Assessment Report submitted to Corporation

SPECIAL CORRESPONDENT

THIRUVANANTHAPURAM: The city Corporation will be called upon to engage with neighbouring panchayats and enlist the support of civil society organisations as it braces itself to tackle multiple hazards and adapt to climate change.

The Hazard and Vulnerability Assessment Report for the capital city submitted to the Corporation outlines a series of measures to equip the local body for the challenges.

Proposals

The report proposes rejuvenation of water bodies, enforcement of land use regulations and building rules and providing informal settlements with basic services as thrust areas for the city's disaster risk reduction plan.

Prepared by the city Corporation and the Kerala State Emergency Operations Cen-

■ The report proposes rejuvenation of waterbodies

■ Action plan to be formulated based on report: Mayor

tre with funding from the UN Development Programme and USAID Climate Risk Management Project, it assesses the vulnerability of the city to hazards like floods, industrial accidents, drought, coastal erosion, lightning, landslide, earthquakes, mass gatherings, communicable diseases, biological hazards, fire, road accidents, human conflicts, and radiation exposure.

According to the document, the uneven distribution of rainfall, rapid urbanisation and encroachment and reclamation of natural drainage channels, and urban lakes had led to floods, with the highest number of situations during the three years from 2012.

planned and informal settlement colonies had worsened the situation.

The document recommends the restoration of wetlands and urban water bodies to reduce the risk of flooding and provide an alternative water source during drought situations.

Building rules

It calls for enforcement of building rules, development controls, and land use regulations for urban risk reduction.

The report stresses the need for coordination with neighbouring panchayats for disaster preparedness and climate change adaptation.

It moots financial assistance for the panchayats for conservation of paddy and

wetlands to reduce the nitrate of floods and in the groundwater potenti

It also proposes coordination between the Corpor and Aruvikkara panchay protect the catchment and reservoir from encroachment and pollution.

Minor check-dams

A platform of engage with neighbouring chayats has been proposed to distribute the burden of

Minor check-dams been mooted along the and Karamana rivers to minimise flooding in the city

The report calls for involvement of civil society organisations in setting up Civil Defence Force a clean and maintain cul and canals.

Mayor V.K. Prasanth an action plan would be formulated based on the HVA report.

Rebooting city's disaster management

City Corporation to expand disaster management cell

Kaavya Pradeep Kumar

- Cell to get more personnel, functions
- DPC sanctions plea for funds to buy equipment

THIRUVANANTHAPURAM: With heavy rains over the past couple of months exposing how ill-equipped the city Corporation is to tackle water-logging in its low-lying areas, its think tank has begun to devise ways to improve its disaster management system.

A disaster management cell set up in 2010, is being reinforced as a first step. The cell at present has only one staff member - Ramesh Krishnan, the city project coordinator under the Government of India-United Nations Development Programme Climate Risk Management Project in Urban Areas through Disaster Preparedness and Mitigation programme.

Having managed to get the city a spot among eight cities in the country to benefit from

the UNDP support, the Corporation is now making efforts to expand the cell in terms of the number of personnel and capabilities.

A link

The cell will serve as a link between the civic body and technical and research organisations such as the INCOIS (Tsunami Early Warning System, the India Meteorological Department, the Directorate of Health Services, and the Centre for Earth Science Studies to get the Corporation's responders moving as soon as an alert is issued.

The efforts in this direction have been bolstered by the District Planning Committee

and electric), and inflatable rubber boats. Corporation workers will be trained to use the equipment as well.

Training

Welfare standing committee chairman Paliyann Rajan, under whose committee the disaster management cell will most likely function, said cleaning workers interested in becoming part of the project would be given the training. They would be taught to carry out basic troubleshooting, and conduct weekly trial runs to ensure the maintenance of the equipment.

Mr. Ramesh Krishnan said a major portion of this year's project would involve sensitisation drives. Workshops would be conducted at 10 schools in the city, and NSS and NCC volunteers would be roped in to carry out awareness programmes.

(DPC's recent approval of the Corporation's proposal requesting its 32 lakh to be used primarily for procurement of essential equipment. A detailed project report was submitted in May.

Low-lying areas

Many Corporation wards are situated in low-lying areas prone to flooding and yet, in the best of times, the civic body has one working pump set. This will change with the DPC's sanction, enabling the Corporation to procure the equipment.

The list includes wood-cutters, concrete cutters, search lights, hydraulic spreaders, pump sets (diesel, kerosene

12/14/2015

Indian Express-corp-dmc-12-Dec-2105.jpg

DISASTERS: CORP'S RAPID ACTION FORCE SOON

Training to be provided by the National Disaster Response Force will zero in on the rescue operations during building collapses and flooding

By Meera Manu

T'Puram: To fortify the disaster management measures, the City Corporation is creating a rapid action force which will have a 60-member core team ready to act during emergency situations. The members, to be drawn from among the contingent workers, health and engineering wings, are to receive a crash training for the purpose.

The training to be provided by the National Disaster Response Force (NDRF) will zero in on the rescue operations during building collapse and flood-



The NDRF team from Arakkonam in Tond Nalla lake near the site.

"The training is as part of strengthening the disaster management cell of the City Corporation, building up a team ready to handle emergency situations and ensure sufficient personnel on such occasions. Involving hands-on training is intended with the

programme," said Ramesh Krishnan, city project coordinator. UNDP proposal for disaster management cell, City Corporation. Presently, volunteers from provided was limited. Corporation is providing training under three community-based disaster risk management programmes.

Forwards, strengthening the disaster management cell, the Corporation has received government funding amounting to Rs. 32 lakh, of which Rs. 15 lakh has been set aside for training and related activities and the remaining Rs. 17 lakh is to be used for procuring disaster management equipment.

ABSENCE OF EQUIPMENT

The Corporation is procure sufficient equipment including a number of pumps as the fact the response set of 24 items are if available for electrical and if emergency. Office unavailability is is such as the pump is responsible for essential equipment, inflatable rubber pump set and a available emergency figure in the list, must are to be to ease the active fighting person the emergency cell.

Training in Disaster Management



Express News Service

T'Puram: The Community Based Disaster Risk Management (CBDRM) programme organised under the aegis of the Corporation

The programme on 'first aid' was organised at Thennurkom in Kottapuram

commenced in select 40 wards. The project that aims to enhance resilience to disasters and climate change is being done in association with UNDP project and the Malankara Social Service Society. Training was given to volunteers of task forces formed under the CBDRM.

It plans to extend the programme to all the 100 wards.

The first programme on 'first aid' was organised at C V Smarka Grandhasala at Thennurkom in Kottapuram the other day. Volunteers from Mullaor, Kottapuram, Venganoor, Vellar, Harbour and Poonkulam wards received training. Experts of Indian Institute of Emergency Medical Services (IEMS), an NGO-based at Kottayam, facilitated the programme.

Training will be given at the ward level in other domains of disaster management such as search and rescue and evacuation handled by Kerala Fire and Rescue Services and on shelter management by PROFEXCEL, an NGO.

Training in first aid being given to a volunteer at a programme of the Corporation the other day | EXPRESS

ദുരന്തനിവാരണ പരിശീലന ക്ലാസിനു തുടക്കമായി

കൊല്ലം ഏതു ഭൂതനരതെയും അധികരിക്കാൻ സഞ്ചാലാക എന്ന ലക്ഷ്യത്തോടെ മൺറ്റ്റ്റോ തയ്യാറെടുത്തിരിക്കുന്നതിനോടൊപ്പം സാമൂഹികമായി സജ്ജമാക്കാനും സാമൂഹികമായി സജ്ജമാക്കാനും ഇതിന്റെ ഭാഗമായി നൂറുപതിനാലു പ്രദേശങ്ങളിലായി ഏതാണ്ട് 1000 പേർക്കായി പ്രത്യേക പാഠശാലകൾ തുറന്നു. പ്രദേശങ്ങളിലായി നടന്നുവരുന്ന ഈ പാഠശാലകളിൽ ഉൾപ്പെട്ടവർക്ക് പ്രവേശനം, ഭക്ഷണം, വാടക മുതലായവ നൽകിയിട്ടുണ്ട്. പ്രദേശങ്ങളിലായി നടന്നുവരുന്ന ഈ പാഠശാലകളിൽ ഉൾപ്പെട്ടവർക്ക് പ്രവേശനം, ഭക്ഷണം, വാടക മുതലായവ നൽകിയിട്ടുണ്ട്.

ഉയരമുള്ള കെട്ടിടത്തിനു ചുറ്റും ആറു മീറ്റർ സീമലും വേണമെന്നു ശുപാർശ

പ്ലാറ്റുകൾ അടക്കം ഉയരമുള്ള കെട്ടിടങ്ങളുടെ നിർമ്മാണത്തിനായി കൂടുതൽ സീമലും കണ്ടെയ്നറുകളും വരണം



ഷീല്ലർ സിറ്റിഫിക്കേഷൻ

പാലക്കാട് • സംസ്ഥാനത്തെ നഗരപ്രദേശങ്ങളിൽ വൻ കെട്ടിടങ്ങൾക്കു (നാലു നിലയോ 15 മീറ്റർ ഉയരമോ ഉള്ളവ) ചുറ്റും ആറു മീറ്റർ വീതം സീമലും ഒഴിച്ചിടണമെന്നും 12 മീറ്റർ വരെ നിരവധിമാക്കണമെന്നും സർക്കാർ നിയോഗിച്ച വിദഗ്ധ സമിതിയുടെ ശുപാർശ. ദുരന്തങ്ങൾ നേരിടാൻ കെട്ടിടനിർമ്മാണ ചട്ടങ്ങളിൽ വരുത്തേണ്ട ഭേദഗതികളെക്കുറിച്ച് ശുപാർശ നൽകാൻ നിയോഗിച്ച വിദഗ്ധ സമിതി ഇതടക്കമുള്ള നിർദ്ദേശങ്ങളടങ്ങിയ കരടു റിപ്പോർട്ട് സർക്കാരിനു സമർപ്പിച്ചു.

അനിശ്ചിതനേരത്തോടെ വാഹനങ്ങൾക്കു സഞ്ചരിക്കാനും തിരിക്കാനും കെട്ടിടത്തിന്റെ കോണുകളിൽ സൗകര്യമുണ്ടാകണം. ഇതിനായി ഒൻപതു മീറ്റർ ദേണിങ് റോഡിന് വേണം. ഇതോടെ പ്ലാറ്റുകൾ അടക്കം ഉയരമുള്ള കെട്ടിടങ്ങളുടെ നിർമ്മാണത്തിനായി കൂടുതൽ സീമലും കണ്ടെയ്നറുകളും വരണം.

ജനീയറിങ് കോളജിലെ ബന്ധുപ്പെട്ട വിഭാഗം മേധാവിയുടെ ഫ്ലാനും സർട്ടിഫിക്കറ്റും സമർപ്പിക്കാം. കെട്ടിടനിർമ്മാണ രംഗത്തു പ്രവർത്തിക്കുന്ന പ്രവർത്തനങ്ങളുടെ യോഗ്യതയും അധികാരപരിധിയും വ്യവസ്ഥ ചെയ്യുന്ന അപ്പോർഡിക്സ് എൽ എന്ന ചട്ടത്തിൽ മാറ്റങ്ങൾ വരുത്തണമെന്നും റിപ്പോർട്ടിലുണ്ട്.

സുനാമി ഉൾപ്പെടെയുള്ള ദുരന്തങ്ങളുടെ പരിഹാരത്തിനായി കേന്ദ്ര ആഭ്യന്തര മന്ത്രാലയത്തിന്റെ നിർദ്ദേശപ്രകാരം 2013 ലാണ് അന്നത്തെ റവന്യൂ അഡീഷണൽ ചീഫ് സെക്രട്ടറി നിവേശിത പി. ഹരന്റെ നേതൃത്വത്തിൽ 15 അംഗ വിദഗ്ധ സമിതിയെ സർക്കാർ നിയോഗിച്ചത്. നഗരകാര്യ വകുപ്പ് സെക്രട്ടറി എം.പി.എം. മുഹമ്മദ് ഹനീഷാണ് ഇപ്പോൾ സമിതി അധ്യക്ഷൻ. തദ്ദേശഭരണ വകുപ്പ് ദുരന്തനിവാരണ മാനേജ്മെന്റ് സെക്രട്ടറിമാർ, ചീഫ് ടൗൺ പ്ലാനർ, വിവിധ എൻജിനീയറിങ് കോളജുകളിലെ വകുപ്പ് മേധാവികൾ തുടങ്ങിയവരാണ് അംഗങ്ങൾ. ചീഫ് ടൗൺ പ്ലാനറായിരുന്ന ഈപ്പൻ വർഗീസ്, എറണാകുളത്തെ ജയ്കോൺ കോളജ് ഓഫ് മാനേജ്മെന്റ് ആൻഡ് എൻജിനീയറിങ്ങിലെ സിവിൽ എൻജിനീയറിങ് വിഭാഗം മേധാവി ഡോ. യാക്കുബ് മോഹൻ ജോർജ്, തിരുവനന്തപുരം കോളജ് ഓഫ് എൻജിനീയറിങ്ങിലെ സിവിൽ എൻജിനീയറിങ് വിഭാഗം മേധാവി ഡോ. ബാലൻ എന്നിവരുടെ നേതൃത്വത്തിൽ യഥാക്രമം നഗരസൗകര്യം, കെട്ടിടസൗകര്യം, സൗകര്യം, ഭൂമിസമാവേകത, തുടങ്ങിയ ഉപസമിതികളും നിയോഗിച്ചിരുന്നു.



സാമൂഹ്യാധിഷ്ഠിതദുരന്തനിവാരണ ബോധവൽകരണ ക്ലാസ്സാണി. കളക്ടർ ഡോ. എസ്. ചിത്ര ഉദ്ഘാടനം ചെയ്യുന്നു

സാമൂഹ്യാധിഷ്ഠിത ദുരന്തനിവാരണം: ബോധവൽകരണ ക്ലാസ് നടത്തി

മൺറ്റ്റ്റോയുടെ സംസ്ഥാനദുരന്തനിവാരണ അതോറിറ്റിയുടെയും റവന്യൂ ഡിപ്പാർട്ട്മെന്റിന്റെയും ഐക്യരാഷ്ട്ര സനപരിപാടിയുടെയും (യു.എൻ.ഡി.പി) സംയുക്താഭിമുഖ്യത്തിൽ മൺറ്റ്റ്റോയുടെ ഗ്രാമപഞ്ചായത്തിൽ സാമൂഹ്യാധിഷ്ഠിതദുരന്തനിവാരണം ജാഗ്രതപരിപാടിയുടെ ഭാഗമായി ബോധവൽകരണ ക്ലാസ് നടത്തി. പഞ്ചായത്ത് അങ്കണത്തിൽ നടന്ന പരിപാടി പ്രസിഡന്റ് ബിനോയ് അച്യുതാനന്ദൻ, ചേർന്ന മെമ്പർമാർ കമ്മിഷണറിയുടെയും, റവന്യൂ പ്രസിഡന്റ് മണ്ണുമാറ്റ ഗ്രാമപഞ്ചായത്ത് അംഗങ്ങളുടെയും സാന്നിദ്ധ്യം.

ബന്ധപ്പെട്ട ഉദ്യോഗസ്ഥരായ രമേശ് കൃഷ്ണൻ, ജോ. കെ. സി. ബി. അ. റേജിഷ്ട്രാറും റവന്യൂ ഡി.പി. വി. വി. തിരുനെൽവേലൂർ നഗരസഭയിൽ നടത്തിച്ച മതലേഖനം, തിരുനെൽവേലൂർ നഗരസഭയിൽ നടത്തിച്ച മതലേഖനം.

മലങ്കര സോഷ്യൽ സർവീസ് സൊസൈറ്റി ദുരന്തനിവാരണ പരിശീലനം

തിരുവനന്തപുരം • ഐക്യരാഷ്ട്ര സംഘടനയുടെ കീഴിലുള്ള യു.എൻ.ഡി.പി.യും നഗരസഭയും മലങ്കര സോഷ്യൽ സർവീസ് സൊസൈറ്റിയും സംയുക്തമായി സംഘടിപ്പിക്കുന്ന ദുരന്തനിവാരണ പരിശീലന പരിപാടിക്ക് തുടക്കം കുറിച്ചു.

രണ്ടു ദിവസത്തെ പരിപാടിയിൽ ആശാ വർക്കർമാർ, കുടുംബശ്രീ വോളന്റിയർമാർ, മറ്റു സന്നദ്ധ സംഘടനാ പ്രവർത്തകർ എന്നിവർ പങ്കെടുക്കും. കാലാവസ്ഥ വ്യതിയാനം മൂലം ഉണ്ടാകുന്ന പകർച്ചവ്യാധികളെ കുറിച്ചാണ് ആദ്യഘട്ട പരിശീലനം. നഗരസഭ ക്ഷേമകാര്യസമിതി ചെയർമാൻ പാളയം രാജന്റെ അധ്യക്ഷതയിൽ ഡബ്ല്യുട്ടി മേയർ ജി. ഹാപ്പി കുമ്മാർ ഉദ്ഘാടനം ചെയ്തു. സംസ്ഥാന ദുരന്തനിവാരണ സെൽ മെമ്പർ ഡോ. ശേഖർ കുര്യൻ കോ-ഓർഡിനേറ്റർ ഡോ. ബി. ഉണ്ണികൃഷ്ണൻ, മലങ്കര സോഷ്യൽ സർവീസ് സൊസൈറ്റി എക്സിക്യൂട്ടീവ് ഡയറക്ടർ ഫാ. ബോവാൻ മാത്യു, കോ-ഓർഡിനേറ്റർ ബനഡിക്ട് ജറാൾഡ് എന്നിവർ പ്രസംഗിച്ചു. വിവിധ സെക്ഷനുകളിൽ ഡോ. അനൂജ, ഡോ. രമ്യ എന്നിവർ ക്ലാസെടുത്തു. ഇന്നു ജില്ലാ മേലറിയിങ് ഓഫീസർ ആർ. ഉണ്ണികൃഷ്ണൻ, അഡി. ജില്ലാ മെഡിക്കൽ ഓഫീസർ ഡോ. ഡി.കൃഷ്ണൻ എന്നിവർ ക്ലാസെടുക്കും.



A typical house, Light weighted, wooden, elevated, in Peringara Village of Pathanamthitta (Above) and the usual sight of houses after flooding in Munrothuruthu, Kollam (Below)



Output 1: MAINSTREAMING DRR and CCA**1.1) Key Activities**

1.a) ‘Strengthening of emergency response capabilities with emphasis on differently abled people’

1.2) Progress on Activities /Result

Prepared concept note on ‘Strengthening of emergency response capabilities with emphasis on differently abled people’ and submitted to Ministry of Home Affairs (MHA) & UNDP for perusal.

The project has been approved by State Disaster Management Authority (SDMA) with a budget outlay of Rs 50,00,000/-(Fifty Lakh Rupees Only). State Project Officer (SPO) prepared the proposal on which the approval was received by the KSDMA and he prepared a concept note of the consultation meeting, which is also the first deliverable of Annual Work Plan 2016.

The following are the deliverables set for the project. The first deliverable is to conduct the state level consultation, which is planned to be held in the month of April 2016.

Deliverable 1	-	April 2016 (Consultation)
Deliverable 2	-	May & June 2016 (Preparation of module/took kit)
Deliverable 3	-	July 2016 (Training of the Trainers)
Deliverable 4	-	August – October 2016 (District level training)

Output 2: URBAN RISK REDUCTION**2.1 Key Activities**

- 2.1.a) Training for Urban Community Volunteers on Climate linked epidemic control
- 2.1.b) Printing of City Disaster Management Plan
- 2.1.c) CBDRM in 40 wards of Thiruvananthapuram
- 2.1.d) CBDRM in 44 wards of Thiruvananthapuram (Phase III)
- 2.1.e) EWS action plan finalization & printing
- 2.1.f) Preparation of handing over/exit report

2.2 Progress on Activities /Result

Training for urban community volunteers on climate linked epidemic control (Batch 04)

The Municipal Corporation of Thiruvananthapuram in association with Supporting NGO – Malankara Social Service Society had conducted 4th and final batch of “Training for urban community volunteers on Climate Linked Epidemic Control” on 3rd and 4th of March of 2016 at Samannuya Pastoral Center, St. Mary’s Church Compound with technical assistance from NHM and District Medical Office, Thiruvananthapuram. 33 persons’ comprising Kudumbashree Ward Health volunteers and ASHA Workers participated in the two day training programme.

Day I

Technical Session 01

Mr. Joe John George, SPO UNDP handled the introductory session on basics of Disaster Management. The multimedia presentation helped participants to get a real-time experience of disaster. The session was helpful in understanding various terminologies in disaster risk reduction like; prevention, mitigation, preparedness, rehabilitation and reconstruction as well as response methods during disaster. The salient features of Disaster Management Act 2005 was also shared and discussed with the trainees.



Mr Joe John George, SPO facilitating the sessions in the training

Technical Session 02



Mr Anil Kumar, Jr. Health Inspector taking session on Air Borne Diseases.

Technical session 02 was on ‘Management of Air Borne Diseases’. Mr. Anil Kumar, Junior Health Inspector of Thiruvananthapuram Municipal Corporation facilitated the session. He started his deliberation by explaining in simple terms on what is an ‘Air Borne Disease’. Types of air borne diseases was presented and discussed with the trainees. He shared few case studies to make his input session more lively and understandable. He said that globally in urban area, Tuberculosis is emerging as one among the major threat to public health. One third of the world population is infected with TB, MDR TB and XDR. Preventive method of air borne diseases was presented and made suggestions to improve public health systems.

On the second day, Morning session started with an evaluation of what was learnt in day I. The trainees were asked to present their learning of day I.

Technical Session 03

Dr. Remya Sudevan (Epidemiologist, DHS, Thiruvananthapuram) handled the session on “Vector Borne Disease”. She started with the theme of 2014’s World Health Day, “SMALL BITE BIG THREAT” and made a detailed presentation about types of vector borne diseases, its carriers. While discussing about major vectors she had an interactive session with the trainees. Dr. Remya provide suggestions for prevention of diseases like malaria, dengue etc. She gave tips on controlling these vector borne diseases. She concluded her session by upholding the importance of chemical control, biological control, personal protective measures and genetic control for reducing vector borne diseases, with high emphasis on management of solid as well as liquid wastes which has now become a major challenge for all urban local bodies.



Dr Remya Sudevan, Epidemiologist, IDSP Cell facilitation session on vector borne diseases.

Technical Session 04

Dr. Hashim (Dr. Hisham Moosan, Asst. Professor/Epidemiologist, Department of Community Medicine, Govt. Medical College, Thiruvananthapuram explained Community Based Health Surveillance for Epidemic Control. Following topics were discussed with the trainees.

- Participatory health surveillance and its technologies / techniques
- Participatory mapping of epidemics
- Methods to involve community volunteers for epidemic control at local level

Technical Session 05

Post lunch session was on “Management of Water Borne Diseases”, which was handled by Dr. B. Unnikrishnan, District Programme Manager, National Health Mission. He mentioned that global surveillance is a way for better public health care system. He spoke on the types of water borne diseases, its carriers and preventive methods. The role of community volunteers in controlling the spread of water borne diseases was discussed.



Dr B Unnikrishnan interacts with the participants on ‘management of water borne diseases’.

The two day training programme ended with a vote of thanks delivered by the Programme Officer of supporting NGO Ms. Benedicta Gerald.

2.1.b) Printing of CDMP

The DDMA – District Disaster Management Authority in its meeting held on 03-March-2016 had approved the City Disaster Management Plan (CDMP) prepared by the Municipal Corporation of Thiruvananthapuram. DDMA vide letter dated, 16-March-2016 had intimated the MC regarding the approval of CDMP. The Municipal Corporation had given issued printing order to the Press and on 30th of March, 250 copies of CDMP is delivered to the Municipal Corporation.

2.1.c) Completion of CBDRM in 40 wards

The supporting organisation executing CBDRM (Community Based Disaster Risk Management Project) in 40 wards under phase II had completed all field level activities, including of completion of all community level task force training programme. 3rd installment of Rs. 1,92,361 is released to the supporting NGO for completing training programmes. The NGO is now engaged in preparing Ward DM Plans, which will be submitted to the Municipal Corporation in 2nd week of April 2016.

2.1.d) Implementation of phase III CBDRM in 44 new wards

As per the recommendation of SEOC, the Municipal Corporation had agreed to engage ILDM (Institute of land and Disaster Management, PTP Nagar, Tvm) for the implementation of CBDRM in 44 new wards under phase III programme. The CPC prepared draft MoU and was shared it with SPO for comments. The draft MoU was modified based on the comments received from SPO and was officially sent from MC to the Director ILDM for obtaining comments. The MC is expecting reply comments from the ILDM in the first week of April 2016.

2.1.e) Preparation of EWS Action Plan

EWS Action Plan which was prepared by the Consultant Ms. Vrindanath M C was revised based on the comments received from the SPO and is now ready from printing. Final print of the EWS Action Plan is kept in the file. After obtaining necessary approval from the MC Secretary, it may be send to Press for printing.

2.1.f) Preparation of handing over / exit report of GoI-UNDP-CRM Project

On 23-March-2016 Human Resource Associate of UNDP intimated the CPC about expiry of service contract with effect from 31-March-2016 and requested submission of exit interview report to UNDP. NPC vide e-mail dated 23-March-2016 had informed the CPC to prepare a detail exit / handing over report and submit the same to UNDP, SEOC and to The MC Nodal Officer. Since notice period issued from UNDP was too short, CPC couldn't compete the preparation of exit/handling over report. It will be submitted to UNDP in the first week of April 2016.

Output 3: TECHNICAL ASSISTANCE & CAPACITY DEVELOPMENT

3.1 Key activities

3.1) Community Sensitization programme on CBDRM in three wards

3.2 Progress on Activities /Result

3.2.1 Community Sensitization programme on CBDRM in three wards

In the month of December 2015 and February 2016, supporting NGO – Malankara Social Service Society had organised three ward sensitization programme on CBDRM – Community Based Disaster Risk Management Programme. The NGO by mistake couldn't report conduct of meetings to the Municipal Corporation in December 2015 and February 2016. The meetings were conducted in the wards of Melamkode, Pappanamcode and Pattom where due to local issues the meeting couldn't be previously conducted. In two wards, the meeting was inaugurated by Kudumbashree CDS chairperson and the other was chaired by the Ward Councilor. Members of Residence Association; ASHA Workers, JPHN and Kudumbashree members participated in the meeting. Programme Coordinator of supporting NGO spoke on the scope, importance and relevance of CBDRM programme in the light of climate change and global warning.

Output 4 : KNOWLEDGE MANAGEMENT

4.1 Key Activities

4.a) Strengthening of online repository

4.2 Progress on Activities /Result

4.a) The website redesigning has reached its final stage. Contacted Mr Subeesh S (Liaisoning official) regarding the update. The remaining installments shall be paid this quarter and complete the task of redesigning assigned to Kerala Small Industries Development Corporation.

Output 5 : COMMUNITY RESILIENCE

5.1 Key Activities (AWP 2015)

Participatory risk mapping and DM plan preparation involving communities in participatory risk assessment / DM plan preparation that takes into consideration both disaster risk and climate change – to be piloted in two village of the project districts.

5.2 Progress on Activities /Result

The Annual Work Plan of 2015 had the above mentioned activity. CBDRM was done in two villages Viz. Peringara & Munrothuruthu of Pathanamthitta & Kollam Districts respectively. The CBDRM activity was outsourced to Foundation for Development Action, Pathanamthitta. All the community level programmes got over, however, the DM plans will be submitted only in the month of April 2016.



Panchayat President of Munrothuruthu addressing the training participants

The last training was conducted on 15th March 2016 at

Munrothuruthu village. The Hon'ble President of Munrothuruthu panchayat inaugurated the training on 'search & rescue'. The training (practical session) was conducted by Fire & Rescue department, Govt. of Kerala.



Training session in progress

Details of Workshops/Trainings Conducted / Review Done

- Facilitated training for the Thiruvananthapuram Corporation Ward Councilors (100 wards) on Disaster Management, organized by District Disaster Management Authority (DDMA), held on 20th January 2016.

- Facilitated training on community based Disaster Management on 7th January 2016 at Peringara Village, Pathanamthitta District, organized by the Peringara Panchayat. CBDRM is also done in Peringara Village.
- Facilitated an exhibition stall of Kerala State Disaster Management Authority on 19th & 20th of February 2016 on the occasion of Knowledge Exchange Summit organized by the IT Dept. Govt of Kerala.
- Facilitated sessions on Shelter Management in Peringara, Pathanamthitta Dist. on 6th Feb 2016.
- Facilitated session on the ‘basics of Disaster Management’ session for the community volunteers (JPHN, Asha Workers, Anganwadi workers etc) on 4th March 2016, the training was a part of climate linked epidemic control training programme on 4th & 5th of March 2016.
- Review done for the Fire Mock Drill organized by Thiruvananthapuram District Disaster Management Authority.
- Independent observer of SEOC in Tsunami Mock drill conducted jointly by State Disaster Management Authority & Ministry of Home Affairs. A detailed report is made which is attached herewith.
- Sent all the brochures of hazards to 14 districts 300 sets, i.e. 1500 brochures of Fire, Earthquake, Flood, Drought, and Lightning.
- Facilitated group activity on ‘Climate Change Mitigation’ organized jointly by Centre for Environment Education & Ministry of Forests, Environment & Climate Change. State Project Officer was asked to engage with the children on the message and the same was video recorded by Victers channel for further telecasting.



Children’s programme in Victers TV channel

Meetings Attended

- 1) State Executive Committee, SDMA meeting attended on 18th February 2016 along with State Project Manager and other members. Presented on the achievements made by UNDP project.
- 2) Attended advance orientation meeting on 24th February 2016 on Tsunami Mock Drill.

- 3) Attended Table-top exercise held on 10th March 2016 on Tsunami Mock Drill
- 4) SPO attended 3rd PMC meeting at NewDelhi organized by GOI-UNDP. He appraised about the states' activities to the Secretary (Foreigners).
- 5) SPO attended National Level Workshop on 'Urban flood mitigation – Lessons learnt & road map for future' by NDMA, in NewDelhi.

Guided Intern Students

Guided three intern students placed under state emergency Operations Centre, they are

- a) Ms Arch Murali, MSW, Amrutha University – Guided to do data mining on the disaster history of Kerala.
- b) Ms Akhila, MSC D.M, MG University – Guided to conduct climate change impact on Munrothuruthu islands, Kollam; which is one of the project villages of GoI-UNDP Project.
- c) Mr Nayan was given guidance for survival skills during the time of disasters.

Networking meetings

- Met Mr Satish Selvakumar, Head, Urban Practitioners programme, IIHS Bangalore about possibilities of partnership for city project & related areas on 13th Jan 2016
- Met Mr Job Zachariah, Head UNICEF (Kerala & TN) & Dr Sreehari, Kerala UNICEF staff while attending a workshop on Sustainable development goals organized by UNICEF.
- Meeting with District Collector, Thiruvananthapuram regarding Fire Mock Drill, attended DDMA meeting of Thiruvananthapuram regarding CDMP finalization.
- Meeting with Mr Paul Calvert, Sanitation Expert for sanitation solutions on 27th Jan 2016 with reference to betterment of sanitation facility (eco-toilets) in Munrothuruthu.
- Meeting with Mr Siji T, SDMA regarding fund transfer of differently abled project.
- Met faculties of Master in Social Work Dept. of Kerala University on 4th Feb 16 regarding collaborating the efforts jointly towards disaster risk reduction.
- Met Dr Sanal Kumar, Asst. Director, State Institute of Health & Family Welfare regarding followup activities to be taken up. Regarding this, SPO drafted letters to all the 12 district collectors mentioning their (Trainees) availability in catering to disaster accidents.

V List of Documents /Products prepared by:

- Concept note on strengthening of emergency response capabilities of differently abled people towards disaster related emergencies.
- Detailed report on the Tsunami Mock Drill held on the 11th of March 2016.
- Prepared Annual Report 2015 of GoI-UNDP project on enhancing institutional & community resilience to disasters & climate change 2013-17.
- Document on 'History of disasters in Kerala' prepared by Ms Archa M, Intern Student.
- Minutes of the meeting with Hon'ble Mayor on 30th March 2016 regarding the sustainability of the city project
- City Disaster Management Plan by the city project
- Early warning Action plan by the city project.

Deliverable 1:

Strengthening of Emergency Response Capabilities with Emphasis on Differently Abled People

1.1. Key Activities

- A) State Level Consultation on the project KSDMA project 'strengthening of emergency response capabilities with emphasis on differently abled people', held on 11th May 2016
- B) Follow up meeting on the consultation, held on 30th June 2016

1.2 Progress on Activities /Result

- A) State Level Consultation on the project KSDMA project 'strengthening of emergency response capabilities with emphasis on differently abled people', held on 11th May 2016**

Disability in Kerala

In the year 2015, Social Justice Dept., Govt. of Kerala did a state wide, household disability census. All over India, Kerala has been the first state which initiated a complete census of disabled population of the state. The census consisted of 22 types of disabilities that have affected the state's population. The report has broadly classified them, in the order of prevalence, as movement disability, muscular dystrophy, chronic neurological disorder, multiple-sclerosis, hunched back, dwarfism, blindness, seriously impeded vision, learning disability, speech disability, mental retardation, mental illness, autism, deafness, leprosy free persons, haemophilia, thalassemia, sickle cell anaemia, cerebral palsy, epilepsy, deaf & blind and multiple-disabilities. According to this

criteria, there are about 7,91,998 disabled persons in Kerala which constitutes 2.23 per cent of the state's total population. The report shows that an estimate of 9.87 lakh households in Kerala has disabled people, which constitute 11.01 per cent of the total number of dwellings in the state.

Objectives of the Consultation

- To engage various State government departments and experts working in the field of disability to brainstorm on the areas of involvement in capacity building of the differently abled people towards emergency response.
- To develop a road map and identify available human resources in developing ToT module for dissemination trainings at the district level.

About the Project

Considering the emerging needs of people with disabilities towards disaster preparedness and response, Kerala State Disaster Management Authority (KSDMA) has approved the project titled 'Strengthening of emergency response capabilities with emphasis on differently abled people in Kerala'. The project seeks to address the issues of the people with disabilities towards disasters at the district level by training the stakeholders in First Aid, Survival Skills, Search & Rescue, Evacuation, Early Warning etc.

To discuss on the approach towards the project, a consultation meeting was held on 11th May 2016 at Harmony Hall of Hotel Mascot, Thiruvananthapuram.

Consultation Meeting

The consultation was inaugurated by Dr Vishwas Mehta, Additional Chief Secretary, Revenue & Disaster Management Dept., Govt of Kerala *inter alia* Member Convener of State Disaster Management Authority.

Dr. Mehta, emphasized the need to integrate disability & disaster risk reduction and the ways in which the same should be given priority and mainstreamed. He further said that many officials do not have the idea about the needs of people with disabilities during disasters. Similarly, the disability practitioners were not having sufficient idea about the DRR activities. He also highlighted that persons with disabilities were most vulnerable and need to be involved in DRR activities. On the occasion, he released the Braille and Audio brochure of hazards published by KSDMA and handed over these materials to Prof Chandrasekhar and to Executive Director of Kerala Federation of the blind. These materials would be beneficial for those who are visually impaired in the state. KSDMA is planning to produce such materials for the differently abled in due course.

Dr. Sekhar L. Kuriakose, the Member Secretary of KSDMA welcomed all the participants for the consultation and emphasized that the State had to initiate something new in the field of disaster risk reduction. State Disaster Management Authority (SDMA) decided to initiate disability mainstreaming into disaster risk reduction activities in the state as a pilot project which will be disseminated at district level. Concept note was prepared on the consultation which was shared with the stakeholders to get a feedback on the subject. As it was the first consultation, both the stakeholders of disability and disaster management had to agree with certain activities which should be initiated in the state.

7,93,937 people are differently abled in Kerala, according to the Disability Census 2015 by Social Justice Dept., Govt of Kerala

The first session started with the presentation on disability status of Kerala by Dr. T P Ashraf, Executive Director, Kerala Social Security Mission. The state had conducted a census of people with disabilities in 2015, which shows that 2.23% of people live with disabilities in the State. As per the recent study, it showed that 232 persons out of 1000 are people with disabilities in Kerala. Total person with disabilities in the state was 7,93,937 from 7,11,227 households. 46.53% people with disabilities are from below poverty line in the state. Almost all persons with disabilities in the state were enrolled in AADHAR card and 23,111 were having permanent employment. He also emphasized on the involvement of people with disabilities into DRR programme.

Further, Ms. Kalika Mohapatra, Consultant to Handicap International, who was the resource person for the consultation presented on the linkages of disabilities and disaster. She highlighted the global status of persons with disabilities in any disaster situation. Every Year, approximately 20 million people with disability are affected by disasters and as per WHO 10% of affected population by disaster will develop serious psychological trauma. According to WHO, 15% (approximately) of the world's population live with some kind of disability. This is a huge proportion of any community, so quite simply no DRR efforts will be comprehensive without being disability-inclusive. She had also highlighted what UNCRPD said about the Inclusive DRR, as follows:-

- Respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons;
- Non-discrimination;
- Full and effective participation and inclusion in society;
- Respect for difference and acceptance of persons with disabilities as part of human diversity and humanity;
- Equality of opportunity;
- Accessibility;
- Equality between men and women;
- Respect for the evolving capacities of children with disabilities and respect for the right of children with disabilities to prevent their identities

When India is party to UNCRPD, why not the State have inclusive disaster risk reduction activities in place and different frameworks of disaster and disability also highlighted the participation of persons with disabilities in disaster risk reduction activities.

In the second session the resource persons shared the Inclusive Community Based Disaster Risk Reduction initiatives of Odisha and made the floor open for discussion.

Group Discussion

The participants were divided into four groups and requested to find out the needs and issues concerning the people with disability and prepare an action plan for mainstreaming of disabilities into DRR activities of the state.

With this objective, the groups were divided into four functional groups of disabilities for Disaster Risk Reduction such as

- 1) Visual Impairment
- 2) Hearing & Speech Impairment
- 3) Physical Impairment
- 4) Intellectual Impairment

Visual Impairment	Hearing & Speech Impairment	Physical Impairment	Intellectual Impairment
Vision Loss Partial: Low Vision Entire: No Vision/blindness	Decreased ability to detect or understand sounds. Partial: Hard of hearing Entire : Deafness Often goes with decreased ability to speak	Loss or deformity of a limb. Loss of physical function.	Decreased ability of cognitive functioning and adaptive skills. Significant behavioural or psychological pattern that is thought to cause distress or disability.

The group wise plan of action is as below:

Group 1 | Physical Impairment

- Identification of the needs of Physical Impairment during the time of disaster
- Make accessible toilets, ramps and assistive devices
- Proper transportation for physical impairment people

- Stretcher with spine & neck support
- Ambulance facilities
- Wheel chair and crutches
- Awareness generation among the people with disabilities on disaster risk reduction activities, preparedness activities
- Inclusive Early Warning System
- Accessible shelters
- Training on search and rescue of persons with disabilities
- Provision of medical facilities and assistive devices

Group 2 | Visual Impairment

- Grass root level audio warning facilities, single and early warning in different sounds
- Early warning communication facilities
- Awareness generation facilities
- Audio/ tactile marking/ signages
- Braille / Audio messages
- Large size of posters for low vision people
- Accessibility to the relief camps
- Emergency kits for visual impairment people
- Village / community based support for search & rescue operations
- Ensure chain of communication
- Post disaster management schemes

Group 3 | Speech & Hearing Impairment

- Remove the communication barriers
- Awareness generation for hearing impaired people
- Disability friendly building construction
- Rescue plan for each hearing impaired people
- Emergency light display board
- Automatic alarm system
- Multi - purpose electronic media for communication
- Mapping of hearing impaired people among the community

Group 4 | Intellectual Impairment

- Conduct Hazard, Vulnerability & Risk assessment
- Mapping of people with disabilities before the disaster

- Training on life saving skills
- Preparation of community contingency plan along with people with disabilities
- Household preparedness for persons with disabilities
- Training to people with disabilities and their caregivers on DRR activities
- Institutional preparedness activities as some persons with disabilities are living in various special schools and institutions

One representative from each group presented on the deliberations. After presentation of all group activities, it was decided that a core groups will be formed to develop a training module for disability integration into DRR activities in the state.

Mr. Joe John George, the State Project Officer of UNDP project, SEOC shared in detail about the deliverables planned under this project. There are four deliverables under this project

- (1) State Level Consultation on Strengthening of Emergency Response Capabilities with Emphasis on Differently Abled People
- (2) Preparing a module/took kit for the trainers
- (3) ToT for the prospective trainers
- (4) District level trainings. He urged the experts to share their feedback and suggestions to make this project achieve the objective of safer State for people with disabilities.

He proposed vote of thanks and appreciated all those who have participated in the consultation.



Photographs of the Consultation



Additional Chief Secretary, Revenue & Disaster Management
Inaugrating the event



Ms Kalika Mohapatra, Expert in disability inclusive DRR facilitating
the session



Executive Director, Kerala Social Security Mission presents on
'Disability in Kerala'.



Member Secretary, KSDMA delivers introductory remarks during the
consultation



Additional Chief Secretary releases the Braille copy of the IEC
material on hazards to Prof. Chandrasekhar.



Additional Chief Secretary releases the Audio Brochures by handing
over a copy to Executive Director, Kerala Federation of the Blind.

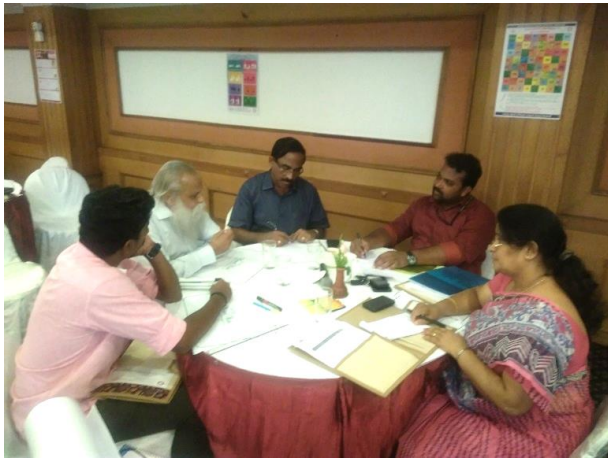


Participants in the Consultation



Participants in the Consultation

Photographs of the Consultation



Participants of the Consultation on 11th May 2016

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**ToT TRAINING PROGRAMME ON STRENGTHENING OF EMERGENCY RESPONSE CAPABILITIES
WITH EMPHASIS ON DIFFERENTLY ABLED PEOPLE 07-09 DECEMBER 2016**



Equipping the disabled to meet emergency situations



T. Nandakumar



Programme will focus on training people with different types of disabilities

The Kerala State Disaster Management Authority is taking up a novel initiative to equip persons with disabilities to cope with natural disasters and other crises.

SDMA has approved a project to strengthen emergency response capabilities with emphasis on the differently abled and include them in the disaster preparedness and response mechanism. The programme will focus on training people with different types of disabilities like physical, intellectual, visual, speech and hearing in emergency response.

All over the world, during times of natural disasters and other crises, persons with disabilities have often remained 'invisible' to relief operations and excluded from assessments, relief, and evacuation measures, says the concept note. The response to their basic needs is often not adapted and their specific needs ignored. They are also at a higher risk of abuse and violence and disasters take a toll on their physical and psychological health.

Those with physical impairments can be at risk during evacuation if assistance is not available and individuals with cognitive impairments may struggle with understanding instructions that must be followed in the event of a disaster while the visually or hearing disabled may have difficulty communicating during the emergency, it notes.

State-level consultation

A State-level consultation is being organised here on Wednesday to work out the training strategy and identify resource persons, NGOs, experts and representatives of various government departments and agencies will discuss the preparation of a training module for people with different kinds of disabilities.

In the second phase, district disaster management authorities will organise trainings and refresher programmes at the district level. The concept note also proposes mock drills, communication materials, and action-oriented behavioural changes to equip the disabled.

According to a census carried out by the Social Justice Department in 2015, there are 7,93,937 disabled persons in Kerala, constituting 2.3 per cent of the total population. The report shows that 9.87 lakh households in the State have disabled people.

b) Follow up meeting on the consultation, held on 30th June 2016

Introduction

Considering the emerging needs of people with disabilities towards disaster preparedness and response, Kerala State Disaster Management Authority (KSDMA) has launched a project titled 'Strengthening of Emergency Response Capabilities with Emphasis on Differently abled people in Kerala'.

To discuss on the approach towards the project, a state level consultation meeting was held on the 11th May 2016 at Mascot Hotel, Thiruvananthapuram. Stakeholders from various government departments and NGOs participated for the consultation. However, an in-depth understanding of the issues & challenges of persons with disabilities was needed and hence a follow up meeting was planned on 30th June 2016, which was held at Govt. guest house, Thycaud from 1000 to 1600hrs. This meeting was planned mainly to engage the experts in the domain of disability to know more about their needs, challenges and to deliberate on the interventions to have a safer society for persons with disability towards disaster risk reduction.

Objectives of the Meeting.

- To engage various State government departments and NGOs to discuss on the modalities of trainings
- To prepare an action plan along with identifying available human resources in developing ToT module for dissemination trainings at the district level.

The following are the excerpts of the training.

Dr Samuel N Mathew | Speech & Hearing Impairment

[Dr Mathew is the Executive Director of National Institute of Speech & Hearing (NISH), Thiruvananthapuram. He has long years of experience in working with the differently abled, especially with speech & hard of hearing impairments. He is also the Director of National Institute of Physical Medicine & Rehabilitation (NIPMR)]

He appreciated the efforts of Kerala State Disaster Management Authority for initiating such a project to address the needs of the persons with disabilities with regard to emergencies. He was of the opinion that, apart from the four broad categories of disabilities planned in the project, Autism Spectrum Disorder (ASD) should be dealt separately, as their problems are relatively different from other disabilities. Even when rescuers try to offer help they may not cooperate, as social deficit is their major concern. Out of all the children who are autistic, 33 per cent are non-verbal; hence, for such children, it would be an additional burden to respond to disasters. Another group which needs much attention are people with multiple disabilities (Eg: deaf & blind). They need to be considered very special and the training processes should be very comprehensive to involve them too.



People with hearing impairment should be given pictorial presentations, videos etc. First responders like Fire Force & Police should be trained on these types of disabilities and how to handle them effectively. They, at times, due to lack of knowledge, force and coax the persons with disabilities to be rescued from a place during emergencies, which may create additional problems. He mentioned that an universal sign language is not yet developed, though Indian Sign Language (ISL) is being mainstreamed slowly. The sign language has gestural as well as language component. Hence, the first responders should be able to communicate through gestures to put across the information in a crisis event. He also suggested to have experts with speech & hard of hearing impairments as the module is being developed.

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Prof. Dr. Santosh Kumar | Physical Impairment

[Dr Kumar is the Asst. Professor in Department of Orthopaedics, Medical College Thiruvananthapuram; Secretary & Board member of Doctors without Borders. He has worked in many disaster management & emergency situations across the globe, mainly in African Countries]

He started his presentation by quoting examples of World Trade Centre emergency response, Tsunami response etc. He also mentioned that 5 components were reflected in Hyogo framework for action 2005-2015 regarding disabilities. He further elaborated the specific issues of the persons with disabilities with reference to physical impairment. The assistive devices used by PwD and their dependence on the same was discussed in detail. The PwD have higher



risk of injuries while rescuing from a disaster site; however, they also have special abilities like additional memorizing capacity and various other abilities too which are their strengths. At the time of rescue, the issues of the PwD should be mapped by the rescuers like – whether the person is able to walk/whether the person needs assistive devices/is the person able to hold/etc. This will make the emergency operations easier for the PwD as well as the rescuers for further assistance. Dr Santosh suggested to hold a mock drill exercise to review the preparedness level of the PwD once in 6 months, he also emphasized to have a better Early Warning System, Preference for the PwD in the shelter homes, Infrastructural facilities, medical support etc. He thanked the organizers for inviting him for the programme.

Prof K A Chandrasekharan | Visual Impairment

[Prof Chandrasekharan is the honorary consultant of Kerala State Handicapped Persons Welfare Corporation, Poojapura, Thiruvananthapuram. The corporation is a public sector undertaking under the State government established in 1979, He has long years of experience working in the field of disability]

Being visually impaired himself, he shared about his experiences from the time he became blind i.e. since 1951. He also shared about the periodical transformation in the nomenclature of



addressing persons with disabilities from ‘invalid’ to ‘differently abled’. He time and again mentioned that, being a disabled person itself is a disaster. The impairments could be divided into sensory & motor impairments. He also explained the difference between the terminologies –

handicap, disability & impairments. He also mentioned about the renowned persons with disabilities around the world like Helen Keller, Stephen Hawking etc, and their stories of perseverance & determination in their lives. Many a times adaptation is more discussed than inclusion of PwD. Prof Chandrasekharan also mentioned about the environmental & attitudinal barriers faced by the PwD. The society need training to have a world fit for PwD. The trainings should address their needs and have to enable them to process their thinking even if they cannot see or hear. The trainings should engage the intellect and minds of PwD.

Dr M K Jayaraj | Intellectual Impairment

[Dr Jayaraj is the Director of State Institute for the Mentally Challenged, Pangappara, Thiruvananthapuram. State Government appointed him as one member commission to study the problems of the mentally challenged in the State]

He started by applauding State Disaster Management Authority (SDMA) for launching this project. From his vast experience he shared about the concerns in the field of intellectual impairment. In this group, the decision making process is absent. Majority of the people with intellectual impairment are dependent on their caregivers like parents/siblings/teachers etc. He also flagged the increasing population of children with Autism, wherein the recent statistics suggest the figure at 1 in every 58 children has autism. In most of the cases, the medical sciences have no clue of the cause of it. He mentioned about the plight of people suffered in ‘endosulfan disaster’ of Kasaragod district, which was anthropogenic in nature. Children still suffer in Kasaragod due to this. He also shared about the challenges in the area of protection of the PwD from abuse, which is seen to be a growing concern in the society.



Provisions for the persons with Disabilities



Shri S Nazim, State Programme Coordinator, Kerala State Handicapped Persons Welfare Corporation Thiruvananthapuram presented on the provisions for the persons with disabilities. He shared the provisions mentioned in the Persons with Disabilities (Equal Opportunities, Protection of Rights and full participation) Act 1995. There are 14 chapters in the Act, which has recognized 7 types of disabilities. He explained about the schemes, allowances and entitlements etc for the persons with disabilities. India ratified UN Convention on the Rights of Persons with Disabilities etc.

Hence the provisions mentioned in the same has to be realized. The state has a policy on persons with disabilities.

Rights of persons with disabilities

The Bill (Rights of Persons with Disabilities bill, 2014) states that persons with disabilities shall have the right to equality and shall not be discriminated against on grounds of their disability. Rights of disabled persons include protection from inhuman treatment and equal protection and safety in situations of risk, armed conflict, humanitarian emergencies and natural disasters. All existing public buildings shall be made accessible for disabled persons within five years of the regulations being formulated by the National Commission for Persons with Disabilities. No establishment will be granted permission to build any structure, issued a completion certification or allowed to occupy a building, if the building does not adhere to the regulations formulated by the Commission.

1981 was observed by the United Nations as the year for persons with disabilities. Living with disability and disasters was the main theme of International Disaster Risk Reduction day of 13th October 2013.

Project Progress & Action Plan

Shri Joe John George, State Project Officer of GoI-UNDP, SEOC summarized about the deliverables of the project and further activities under the project. Broadly there are three more deliverables to be achieved

1) Preparation of Module/Tool kit.

SDMA would identify experts in the domain of disaster risk reduction, emergency management, disability etc and would form a core group to develop a module or tool kit. The module will be prepared with the background of comprehensive needs of the stakeholders – persons with disabilities.

2) ToT training for the Trainers

Once the module is prepared, the trainers would be identified through a process and will be given detailed training in the areas of both disability & disaster management. This training will equip the trainees to undertake grass-root level trainings.

3) District level training for the stakeholders

District level trainings shall be conducted in all the districts of the state which will be monitored by respective DDMA's and reported to SDMA. All the four broad categories will be given training. In the case of intellectually impaired, care givers shall be given training.

The training shall contain basic first aid, survival skills, introduction to disasters and rescue options, identifying hazards, vulnerability, risks & capacities. IEC materials will be developed for the trainings according to the communication method of PwDs. Braille & audio brochures are already developed in this regard which was released in the previous consultation.

Suggestions from the Participants

1. To have training on disability for the first responders of the State viz. Fire & Rescue services, Police etc.
2. To conduct mock drill for persons with disabilities once in 6 months.
3. To have a more inclusive approach & systems towards Early Warning Systems.
4. To have disability friendly temporary shelters/camps in disaster prone areas.
5. To have a smaller group of experts in developing the module.
6. The module should also have home based learning methods
7. Grass-root level engagements should be made in the project
8. Existing institutions working with PwDs shall be incorporated in the training. (i.e. BUDS schools, Government institutions, Deaf & mute schools run by social justice dept., Various private institutions/NGOs working in the field of disability etc.
9. IEC materials are to be developed which are friendly / easy to use for the differently abled.
10. Training should include basics of disaster management, first aid/survival skills, rescue, evacuation, identifying hazards, vulnerabilities etc.
11. Sign boards, Maps, Tactile marking etc in public buildings for the benefit of PwD.

Deliverable 2:

Strategy paper for completion of CBDRM training programmes of urban volunteer in remaining 44 new wards of Trivandrum City

Key Activities

Community Based Disaster Risk Reduction programme in all the corporation wards of Thiruvananthapuram. This is being done in 3 phases under the 'GoI-UNDP project on enhancing institutional & community resilience to disasters & climate change 2013-17'. The first phase was covered in 16 coastal wards of the corporation during 2013-14, the second phase covered 40 wards in 2014-15 and the remaining 44 wards are being covered presently. The disaster management plans of the 2nd phase was published on 18th July 2016 by Hon'ble Mayor. The report of the same will appear in the 3rd quarter report as it was held in the month of July.

2.1 Progress on Activities /Result

The third phase was initially decided to be done with the technical help of Institute of Land & Disaster Management, being the state ATI of Revenue Department. Though, ILDM expressed their interest to implement this project, it was later withdrawn by ILDM itself. Hence, there came a considerable delay in implementing this project. This was further discussed with the State Project Manager and the Secretary of the Corporation. SPO & CPC suggested that, this too might be entrusted to Malankara Social Service Society (MSSS). As MSSS showed interest, it has taken to this level of discussions, however, the finalization is yet to happen.

Participants

SL.NO	NAME	DESIGNATION / ORGANISATION
1	Dr Samuel N Mathew	NISH, Executive Director
2	Dr M.K Jayaraj	SIMC, Director
3	Dr Santhosh Kumar	Asst. Professor, Medical College, TVM
4	Prof. Chandrashekar	KSHPMC, Consultant
5	K N Vrinda	Treasurer, Mithra Institute of Behavioural Science.
6	S Dhanya	BUDS Special School, Venganoor, TVPM
7	S Nazim	State Programme Co-ordinator, KSHPMC
8	Col. P G Nair	IIEMS
9	S Sooraj	Station Officer, Fire & Rescue Dept.
10	E B Prasad	Director, Fire & Rescue
11	S Shaji	Former Programme Coordinator, KSSM
12	Fr Bovas Mathew	Director, MSSS
13	Ramesh Krishnan	Exe. Director, Foundation For Development Action
14	E M Prasad	Director, Fire & Rescue
15	R Sasidharan Pillai	Exe. Director, Kerala Federation of the Blind
16	M Amalraj	Asst. Professor, ILDM
17	R Aravindh	Intern, SEOC

18	S Belaram	OA, SEOC
19	C Arun	OA, Corporation TVM
20	Siji M Thankachan	SO, SDMA
21	Dr Beela G K	Centre for Development Studies
22	C Sundari	Asst. Director, Directorate of Social Justice
23	Mujeebu rahman	KSSM
24	Joe John George	SPO, GoI-UNDP, SEOC
25	T Srinivasan	SDMA
26	S Saheerudheen	State Programme Manager, SID, KSSM
27	Mary Midhula Mary	ESS, NCRMP-KERALA
28	Shibu	SEOC
29	Biji S	SEOC

PHOTOGRAPHS



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6

1) Dr Beela G.K, Director of Centre for Disability Studies, 2) Smt. C Sundari, Asst. Director, Directorate of Social Justice, 3) Shri Amal Raj, Asst Professor, Institute of Land & Disaster Management; 4) Fr Bovas Mathew, Director, MSSS; 5) Shri Siji Thankachan, State Disaster Management Authority; 6) Shri Shajeendran Pillai, Director, Kerala Federation of the Blind expressing their opinion during the discussions.

II. Details of Workshops/Trainings Conducted / Review Done

6th April 2016

State Project Officer was asked to be an external observer for the Tsunami Mock Drill done state wide, which was organized by Kerala State Disaster Management Authority & Ministry of Home Affairs. He was also asked to prepare the detailed report of the mock drill, which was prepared and submitted to NDMA & MHA.

20th April 2016

Attended the working group meeting of the Kerala State Disaster Management Authority. Gave suggestions on the various programmes which SDMA could take up for mainstreaming DRR & CCA.

21st April 2016

Attended the round table conference on ‘School Safety’ organized by Kerala State Commission on Child Rights. SPO gave suggestions and recommendations on behalf of SDMA regarding revival of ‘school suraksha clubs’ as part of school safety.

10th June 2016

Attended National Seminar on Disability organized by National Commission for Women (NCW) which was held at Holy Cross college of science & technology, Kozhikode. Networked with many who are working in the field of disability.

III. List of project issues/ new risks that the SPM wants to ensure are included and addressed in the PSC:

- SPO has been assigned as the city project in charge to carry out the residual activities of the city project, especially publishing the documents viz. CDMP, EWS, Ward DM plans & HVA report.
- All the planned activities as per Annual Work Plan of the city project has been completed.

IV List of Documents /Products prepared:

Tsunami Mock Drill Report – 11th March 2016

Report of the State level consultation – 11th May 2016

Report of the follow up meeting – 30th June 2016

Deliverable 1:

Strengthening of Emergency Response Capabilities with Emphasis on Differently Abled People

1.2. Key Activities

State Level Training of Trainers Workshop on ‘strengthening of emergency response capabilities with emphasis on differently abled people’, held from 7-9 of December 2016

1.3 Progress on Activities /Result

Inauguration: The training programme was conducted at institute of management in Government, Trivandrum. The inauguration was held on 7th Dec 2016 Wednesday by Hon. Minister for Revenue and Disaster Management Sri. E. Chandrashekar; presided by Revenue and DM principal secretary Sri. P.H.Kurien IAS, Dr. Shekhar L. Kuriakose (Member Secretary, KSDMA), Dr. M.K.Jayaraj (Director, State Institute of Mentally Challenged) were other dignitaries present on the dais.

During inauguration, Hon’ble Minister released the handbook on disability and disaster risk reduction. The vote of thanks was proposed by Mr. Joe John George. He also introduced the project, expectation from the ToT programme etc.

Participants: Representatives of DDMA’s like Revenue and DM Deputy collectors, DEMO’s, Institution heads, NGO personals from entire districts. 43 delegates participated for this 3 days training.

Materials distributed: Numerous training materials were distributed to the delegates including the handbook on disability & disaster risk reduction.



Inauguration by Hon’ble Minister for Revenue & DM and the audience



Session 1: Introduction to Disaster Risk Management

Dr. Shekhar L.Kuriakose, Member Secretary KSDMA

By raising the question do we have a development vision which capable of creating a resilient community, he started the session towards the historical milestones of disaster management development in India. And it is inclusive of the disaster scenario of India and its great wounds, disaster management act 2005 etc. the way of dealing with disaster relief and mitigation by the act and its practical difficulties were discussed in deep. The national and state level institutions of disaster management and the functions were introduced. The specialties of state disaster management action plan explained. He concluded, the aim of the training programme is to build up a Minimum Relief Code.



Session 2: Vulnerability of Kerala to various hazards

By Mrs Parvathy S, Hazard and Risk Analyst, SEOC

The session dealt with the technical aspects and interventions to the process disaster management. The PowerPoint presentation showed some hazard vulnerability and risk analysis maps of Kerala from state down to taluk levels towards different hazards. And there briefed the technology innovations as early warning system(EWS), automated weather station, rainfall warning dissemination, tsunami warning etc.

As a special added session the city vulnerability assessment report of Trivandrum had shown. Together these could create and impression/image on how far we advanced technologically in disaster management at Kerala.

Session 3: Legal Provisions in Disaster management

By Ramesh Krishnan, Exe. Director, Foundation for Development Action

The session was based on the key titles Disaster management Act 2005, SDMA policy and Sendai framework- Goals and targets. The session started from the disaster history of India between the years 1980 and 2009. The presentation proceeded through the institutionalization based on DMA2005, the development by the time, structure and functions. There introduced the action plans and policies at different levels from national to district. The categorization and considerations about disasters explained. One of the emphasized areas was on the different phases of disasters.

Then the presentation focused on third world conference of UN, and Sendai framework 2015-30; and its 5 points and 7 targets were included.

Session 4: Case studies on Disasters in Kerala

By G.S. Pradeep, Hazard Analyst SEOC

The geographic, geologic and climatic specialties of Kerala are vulnerable to certain hazards, at the same time the emergence of phenomenon like soil piping, kallakadal etc. are creating risks rather than curiosity. The presentation with photographs and comparative visual analysis found very interesting and digestible to the trainers.

Session 5: Introduction to disability

By Dr. M.K. Jayaraj (Director, State Institute of Mentally Challenged, Trivandrum)

The census data on PwD and mentally challenged persons were discussed in detail. The terminology of impairment, disability and handicap explained and the interconnection between the conditions too found very useful when addressing PwD. By the interaction session some myths prevailing in the treatment of cerebral palsy and autism broken by the presenter and stated that 80% of disability can be avoided by preventive measures. The presentation included advanced technology and treatment available currently such as genome programme.

Session 6: Legislations on Disability

By Adv. J. Sandhya (Member, Kerala State Commission for Protection of Child Rights)

The presentation explained and conveyed the existing legal rights and supports for the Persons with Different abilities. It started from the early detection and proceeded through the basic rights by PwD Act 1995, as education, employment, affirmative action, non-discrimination and grievance redressal. And the institutions/trusts and for the welfare of PwDs and act 1992 were explained. The major conventions and conferences were introduced and the UNCRPD 2007 Article 11 is the only one which mentions the right to safety and security and the disaster situations together.

Session 7: Needs and Challenges of People with Disabilities

By Prof. Chandrashekharan, Consultant, handicap Corporation

This session was an excellent depiction of attitude and the transformation of community towards PwD. The personal experience and the development of the critical amenities and institutions for PwD's from the time of formation of the state were shared with the trainers. The usage of terminologies is an important thing to be taken care of while categorizing persons based on the ability to act in the society. The awareness 'inclusive' can break the first barrier and the difference is not to the abilities but to the way in which they are practiced. For the quality education of PwD's the qualification and quality of trainers is very important; the specialized teachers are essential to this system.

Session 8: Disability Inclusive DRR

By Hena N.N (Lecturer, ICDS, MG University)

It was a presentation in which the seeds of thoughts were sown about the attitude of community towards preparedness for disasters. The importance of inclusive DRR and development and the attitude of community against disaster preparedness and disability discussed. The term disaster and disaster management refreshed.

Session 9: Mainstreaming Disability into DRR

By V.Satheeshchandran Nair (Former Head, Vocational Rehabilitation Center for handicapped(VRC), Consultant on Disability)

The core content of the training was dealt with this presentation, with combination of two themes as the fundamentals of disability and mainstreaming PwD in DRR. The motivating persons who fought the disabilities and succeeded in life was selected for the presentations. The milestones of the rights of PwDs at national and international level explained. The meaning of mainstream was defined as a system which stands for all. And the barriers for inclusive system discussed in two levels as social and person with disability, towards the life supporting elements. The solutions for the inclusion become true also put forwarded in the DRR processes as, PwD engagement in HVRA and planning, improve physical accessibility, awareness creation programmes with focus, PwD friendly information communication facilities, stakeholder knowledge in the subject etc. The disaster management cycle and community based disaster risk reduction process explained. The presentation had put forward the importance of participatory approach for the inclusive DRR.

Session 10: Institutional Mechanism in the State for Disability

By Dr. Mohammed Asheel (Exe. Director, KSSM, Govt. Kerala)

Dr Asheel elaborated on the institutional mechanism in the state for disability viz. Department of Social Justice, Kerala Social Security Mission, State Initiatives on Disabilities etc.

Session 11: Survival and First Aid Skills

By Dr. Bennet Xylem (Mother and Child Hospital, Thycaud)

The basics of first aid skills- was an important part of the training, it was an introduction; which doesn't make the skills to the trainers to act in a mass emergency, but to know the basics will be an asset to them. The common casualties and the characteristics were illustrated. The basic Do's and Don'ts were simply helpful to the entire trainers. The terminologies and abbreviations made familiarized.

Session 12: Training on PwDs - Application of technologies

1)Sajini (CDAC) 2) Mr. James Mathew (Project Co-ordinator, INSIGHT, Social Justice department)

The combination of two presenters could create the wonderful awareness on how the information technology consider/concern the development of differently abled through the innovations and inventions. The implementation of alternative communications devices by the modification of mobile phones and computer software applications for education and life supports skills are developed in Kerala itself and are widely using by the PwDs and trained caretakers. The possibilities of communication facilitation can also optimistically lead to the success towards early warning and evacuation and rescue.

Session 13: Qualities of Trainers

By Mr. Joe John George (State Project Officer, GoI-UNDP PProject, SEOC)

The development of the handbook and the efforts taken for the training is briefed as an introduction. The presentation was an enhancer topic for the trainers after the entire selected/focused sessions, to refresh the qualities should be maintained and improved as a trainer.

Mock Training practice

The mock training practice was designed for the purpose of enhancing the team work, communication improvement, discussions, solution making and presentation. This exercises aimed to extract what they have grasped on the core subjects explained for the last three days.

Procedure: The trainers were divided into 4 groups. Each one assigned topics to be performed and some materials also provided to express the vision of each group.

Group 1: Basic concepts of Disaster management: a chart was created and displayed. The team leader selected by them explained what they meant for it.

Group:2: Basics on Disability: a chart was created and displayed. And the team leader conveyed the thoughts.

Group:3: Basics on First Aid: A mime performed by the group members on an emergency occurred in a home to a boy, and how the entire family and medical team works in both wrong and right ways were shown an a strong IEC tool.

Group:4: mainstreaming Disability in Disaster Risk reduction: the discussion could touch a number of areas like risk reduction measures, evacuation, understanding disability and disaster and different phases, modifying CBR groups into risk reduction groups, community empowerment, special trainings, uses of institutional forces like NCC, NSS etc in DRR, financial assistance for programmes and education and career inclusion etc.

Valedictory function: the participants/trainers shared the experiences and benefits of the programme. The main point can be underline is, the method and importance of linking the disaster management and person with different abilities, from the past practice of managing both at different hands.

Conclusion: the three days ToT programme was successful by the measures of the deliverables could reach the trainers at its best way. The feedbacks from the participants were collected in written and oral, which could draw the interest and understanding of them in the subject. The active participation was visible from the side of participants, and the topic selection was closely binding the vision of the ToT, the resource persons also provided interaction with the listeners. And the programme put forward the optimistic signs for the further development and implementation of next level trainings and the vision ‘safe state’.

Participants List			
Sl.No.	Name & Designation	Department/Organization	District
Government Officials			
1	Abdul Nazar.B, Dy. Collector (DM)	Revenue & DM, Kozhikode	Kozhikode
2	Ramachandran.T, Dy.Collector (DM)	Revenue & DM, Kannur	Kannur
3	C. Abdul Rasheed, Dy. Collector (DM)	Revenue & DM, Malappuram	Malappuram
4	Dr. Benoy S. Babu	Directorate of Health Services	Thiruvananthapuram
5	V.N. Peethambaran, Dy.DEMO	DMO(H), Kottayam	Kottayam
6	G. Anand, D.T	Revenue, Pathanamthitta	Pathanamthitta
7	P.G. Geethamani Antharjanam, Dy.DMO	DMO(H), Kollam	Kollam
8	Dr. Sushama P.K, Dy DMO	DMO(H), Idukki	Idukki
9	Dr. Chandramohan E.V, JAMO	JAMO, DMO(H), Kazargod	Kazargod
10	Shine Bobby U.P, Senior Clerk	DEOC, Wayanad	Wayanad
11	Sanjayan T.P	Revenue, Collectorate Idukki	Idukki
NGOs/Institutions			
12	Anil Kumar. B	Kerala Federation of the Blind	Thiruvananthapuram

13	Sujith Kumar J.S,	Fire and rescue services	Thiruvananthapuram
14	Praveen D	Keral Fire and Rescue Services	Thrissur
15	Johnson Simethy, Vice-Principal	St. Joseph's College, Pilathara, Kannur	Wayanad
16	Tomy Jacob, HOD	Department of Social Work, St. Josephs College, Kannur	Wayanad
17	Bindhu Shaju, Animator	CBR, Shreyas Social Service Center, S.Bathery	Wayanad
18	Sasikumar P.B, Project Officer	Shreyas Social Service Center, S.Bathery	Wayanad
19	Sr. Adofla Joseph, Coordinator	TSSS, Vellayambalam	Thiruvananthapuram
20	Soja Olivar	NISH, Trivandrum	Thiruvananthapuram
21	A.R.Girish, General Manager	IIEMS, Kottayam	Kottayam
22	Col. PGC. Nair(Retd.), Branch Manager	IIEMS, Kottayam	Kottayam
23	V. Satheeshchandran Nair, Consultant	Former Head, VRC,GoI	Thiruvananthapuram
24	Shilpa Ramanath	Sredha Computer & Vocational Training	Thiruvananthapuram
25	M.P.Varkey	SAHAYI, Trivandrum	Thiruvananthapuram
26	Subimol A.S	TSSS, Vellayambalam	Thiruvananthapuram
27	Theresa Thomas	FDA	Thiruvananthapuram
28	Asha Jose	QSSS, Kollam	Kollam
29	Jose Gregory, Dy. Director	SAHAYI, Trivandrum	Thiruvananthapuram
30	N.J. Chacko	WSSS, Wayanadu	Wayanad
31	Bony Leo Thomas	IUCDS, MG University, Kottayam	Kottayam
32	Hena N.M	IUCDS, MG University, Kottayam	Kottayam

33	Binu Sebastian A.X, Project Coordinator	ADS, Aleppy	Alappuzha
34	Reneesh Antony	ADS, Aleppy	Alappuzha
35	Dr. P.T. Baburaj	IUCDS, MG University, Kottayam	Kottayam
36	A. Abdul Kadher	Sredha training Center	Thiruvananthapuram
37	Lekshmi Chandran	Malankara Social Service Society, Trivandrum	Thiruvananthapuram
38	Abhilash V.G	Malankara Social Service Society, Trivandrum	Thiruvananthapuram
39	Rajanimon K.A	IUCDS, MG University, Kottayam	Kottayam
SEOC, SDMA			
40	Asha Kiron	Hazard Analyst, SEOC	Wayanad
41	Andrews Spencer	Hazard Analyst, SEOC	Kollam
42	Joe John George	State Project Officer, GoI-UNDP Project, SEOC	Thiruvananthapuram
<u>Trained NGOs</u>			
Sl.No:	NGOs/Institutions	District	Contact Numbers
1	St. Joseph's College, Pilathara, Kannur	Kannur	9447838768
2	CBR, Shreyas Social Service Center, S.Bathery	Wayanad	9446163106
3	TSSS, Vellayambalam	Thiruvananthapuram	9846156931
4	NISH, Trivandrum	Thiruvananthapuram	9048920238
5	IIEMS, Kottayam	Kottayam	9446000472
6	Sredha Computer & Vocational Training, Trivandrum	Thiruvananthapuram	9495903974
7	SAHAYI, Trivandrum	Thiruvananthapuram	9447607751

8	TSSS, Vellayambalam	Thiruvananthapuram	9846156931
9	FDA, Pathanamthitta	Pathanamthitta	7559902877
10	QSSS, Kollam	Kollam	9447534470
11	WSSS, Wayanadu	Wayanad	9656002212
12	IUCDS, MG University, Kottayam	Kottayam	9495213248
13	ADS, Alappuzha	Alappuzha	8714164946
14	Kerala Federation of the Blind	Thiruvananthapuram	9495823898
15	Malankara Social Service Society (MSSS)	Thiruvananthapuram	9895005543

Deliverable 2:

Strategy paper for completion of CBDRM training programmes of Urban volunteer in remaining 44 new wards of Trivandrum City

2.1) Key Activities

Community Based Disaster Risk Management programme in all the corporation wards of Thiruvananthapuram. (100 wards)

2.2) Progress on Activities /Result

Under the GoI – UNDP project on enhancing institutional & community resilience to disasters & climate change, Community Based Disaster Risk Reduction programme in all the corporation wards of Thiruvananthapuram is being held. This is being done in 3 phases, the first phase was covered in 16 coastal wards of the corporation during 2013-14, the second phase covered 40 wards in 2014-15 and the remaining 44 wards are being covered presently. The disaster management plans of the 2nd phase was published on 18th July 2016 by Hon’ble Mayor.

The third phase was initially decided to be done with the technical help of Institute of Land & Disaster Management, being the state ATI of Revenue Department. Though, ILDM expressed their interest to implement this project, it was later withdrawn by ILDM itself. Hence, there came a considerable delay in implementing this project. This was further discussed with the State Project Manager and the Secretary of the Corporation. SPO & former CPC suggested that, this too might be entrusted to Malankara Social Service Society (MSSS) and it has been done so with an agreement signed between Thiruvananthapuram Corporation as the first party and Malankara Social Service Society as the 2nd party. As CPC is not working under this project, SPO is monitoring the project from the State office.



Hon'ble Mayor addressing the gathering

On 24th November 2016, the third phase of the project was launched by Hon'ble Mayor Adv. V K Prasanth. An orientation on CBDRM was also held for the councilors of the 44 wards along with this programme. Member Secretary, KSDMA, Additional Secretary Thiruvananthapuram Corporation, Director MSSS were other dignitaries present on the occasion. SPO, UNDP project & Project Coordinator MSSS facilitated sessions for the corporation councilors.

Deliverable 3:

Handbook on disability & disaster risk reduction

3.1) Key Activities

State Emergency Operations Centre, State Disaster Management Authority (SDMA) published the handbook on disability & disaster risk reduction on 7th December 2016. This was done by Hon'ble Minister for Revenue & Disaster Management Authority, Government of Kerala.

3.2) Progress on Activities /Result

SEOC assigned SPO to design the handbook on disability & disaster risk reduction. The process was done with extensive discussion, consultation and focus group discussion with experts in the field and with people with disabilities. The first consultation was held at the State level on 11th March 2016 and the follow up was done on 30th June 2016, after which the draft was shared with many experts



Hon'ble Minister for Revenue & Disaster management releasing the handbook on Disability & Disaster Disk Reduction

in India and abroad. This handbook was used in the ToT training held in December 2016, which was released by Hon'ble Minister for Revenue & Disaster Management Department, Govt. of Kerala.

II. Details of Workshops/Trainings Conducted / Review Done

13th October - Attended meeting on drought situation of the State chaired by Hon'ble Chief Minister of the State along with other ministers, Chief Secretary, other secretaries.

22nd October - Represented SDMA in the Hon'ble Mayor's meeting on Smart City initiatives and gave suggestions to make a safer city with regarding to disaster risk reduction & climate change adaptation

3-5 November AMCDRR – Facilitated a delegation of 77 people from the State and manned the stall in AMCDRR.

21ST Nov - Rapporteur of 'Climate Variability in Kerala, climate change perspectives', organized by IMD, ICCS & KSDMA

24rd Nov – Orientation meeting for the councilors at Thiruvananthapuram Corporation presided by Hon'ble Mayor, Thiruvananthapuram.

7-9 December – ToT programme on 'Strengthening of emergency response capabilities with emphasis on differently abled people'.



Kerala delegation with Additional Chief Secretary, Revenue & DM dept. at AMCDRR, New Delhi.

IV. Innovations/ Success stories

IEC/BCC materials prepared for the differently abled (draft) eg: Braille brochures, Sign language videos, Games for children etc.

V List of Documents /Products prepared by:

- > Handbook on disability & disaster risk reduction prepared by State Project Officer, Published by State Emergency Operations Centre, released by Hon'ble Minister for Revenue & Disaster Management on 7th December 2016.
- > Report on AMCDRR conference and Kerala delegation.
- > IEC materials on drowning, cracker accidents prepared in vernacular.

VI. Documents and materials prepared in the year 2016 – 2017

- 1 City Disaster Management Plan (CDMP) of Thiruvananthapuram City
- 2 Hazard & Vulnerability Assessment of Thiruvananthapuram City
- 3 Brochures & Posters in Malayalam on Lightning, Fire, Flood, Fire & Earthquake
Audio messages on Lightning, Fire, Flood, Fire & Earthquake
- 4 SDMA Website up gradation
- 5 Snake & Ladder game on earthquake preparedness
- 6 Family Disaster Preparedness plan
- 7 Infographic on water conservation tips at Household level.
- 8 Handbook on Disability inclusive Disaster Risk Reduction

Report Compiled & Prepared by | Joe John George, State Project Officer
GoI-UNDP Project, SEOC, Kerala State Disaster Management Authority

Pls Note: The Names of Ministers or Officers mentioned in the report are given with their designation/role when they were serving during the time when the programmes were held. There may be changes in the portfolio currently as this report covers a span of five years.



Orientation meeting at the Panchayat Office regarding CBDRM programme (above) Asst. Collector, Kollam discussing with the community leader on various hazards of the village, Panchayat President, other officials are also seen (below)



Annexure – 1

Project Steering Committee

A Project Steering Committee was constituted vide G.O (Rt) No. 5266/2014/DMD; dated 31st October 2014 for 'GoI-UNDP Project on enhancing institutional & community resilience to disaster & climate change 2013-17'. The members of this committee are as follows:-

Sl.No:	Name / Designation	Department
1	Additional Chief Secretary (Chairperson)	Revenue & Disaster Management
2	Commissioner, Land & Revenue	Commissionerate of Land revenue
3	Director	National Centre for Earth Science Studies
4	Dy. Secretary	Revenue & Disaster Management
5	Sr. Finance Officer	Commissionerate of Land revenue
6	Shri G Sankar	Scientist G, National Centre for Earth Sciences Studies, Ministry of Earth Sciences, Govt. of India
7	Secretary	Thiruvananthapuram city corporation
8	Dy. Director	Education, Kollam
9	Asst. Director	Social Justice Dept.
10	Asst. Director	Agriculture Dept.
11	Member Secretary KSDMA & Head, SEOC	SDMA / SEOC

Annexure – 2

Total Fund Allocation & Expenditure Statement

Sl.No:	Financial Year (January to December)	Amount Received from GoI-UNDP	Amount Spent by the State
1	2013	1399416.00	1399416.00
2	2014	2362774.00	2362774.00
3	2015	1331721.00	1331721.00
4	2016	150000.00	150000.00
5	2017	881000.00	881000.00
	Total	61,24,911.00	61,24,911.00



AUDITOR'S REPORT

On UNDP Enhancing Institutional & Community Resilience to Disasters and Climate Change 2013-17

We have audited the attached Statement of Expenditure on UNDP Plan under State Disaster Management Authority, which comprises a detail of fund allotted and various expenditures incurred for the said purpose.

Management's responsibility for the Financial Statements

It is the responsibility of management to prepare the Statement of Expenditure that gives a true and fair view of the financial position, financial performance and the cash flows of the project in accordance with the accounting principles generally accepted in India. The responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give true and fair view and free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with the ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Financial Statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and the disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by the management, as well as evaluating the overall presentation of the financial statements.



For **JULIE AND COMPANY**
CHARTERED ACCOUNTANTS TRIVANDRUM
Firm Reg. N: 018391S

Julie G Varghese

Julie G Varghese B.Com, FCA, DISA (ICAI)

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

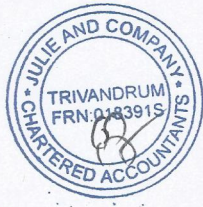
Findings

1. There is no balance of fund available as on the reporting date. (Note: 1 statement of accounts).
2. Bank balance as on 14-09-2018 is Rs. 22336.15/- which represents interest amount (Note -2).

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the statements and the Utilization Certificate annexed to it give the information required in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India.

- i) In the case of the Statement of Expenditure as at 14.09.2018.



For JULIE AND COMPANY
CHARTERED ACCOUNTANTS TRIVANDRUM
Firm Reg. N: 018391S

Julie G Varghese

Julie G Varghese B.Com, FCA, DISA (ICAI)
Proprietor M. No. 232722

For M/s Julie And Company,

Chartered Accountants

FRN 018391S

Place: Trivandrum

Date: 15-09-2018

Julie G Varghese, B.com, FCA, DISA

Mem. No: 232722

**GoI- UNDP Enhancing Institutional & Community Resilience to Disasters and Climate
Change 2013-17**

2015

Sl.No	Particulars	Budget	Amount utilised as per register	Amount utilised as per Audit	Variance if any
1	Consultation at the state level to discuss the brief guidelines for nodal departments prepare for main streaming disaster risk reduction and climate change adaption.	100000	100000	100000	Nil
2	Finalisation of the CDMP and sharing it with stakeholders	187000	187000	187000	Nil
3	Development of early warning action plan for city	50000	50000	50000	Nil
4	Training of the urban community volunteers in 40words	384721	384721	384721	Nil
5	Technical assistance for training of urban community volunteers	50000	50000	50000	Nil
6	Development of module and ToT for enhancing the role of medical health professionals towards desaster related emergencies based on the TNA including health professionals in trivandrum city.	170000	170000	170000	Nil
7	Strengthening of online repository	100000	100000	100000	Nil
8	Participatory risk mapping and DM plan preparation	150000	150000	150000	Nil
9	Adminstrative support for the state.	100000	100000	100000	Nil
9b	Administrtrive support for city	60000	60000	60000	Nil
	Total	1351721	1351721	1351721	Nil



For JULIE AND COMPANY
CHARTERED ACCOUNTANTS TRIVANDRUM
Firm Reg. N: 018391S

Julie G Varghese
15.9.2018

Julie G Varghese B.Com, FCA, DISA (ICAI)
Proprietor M. No. 232722

GoI- UNDP Enhancing Institutional & Community Resilience to Disasters and Climate Change 2013-17

2016

Sl.No	Particulars	Budget	Amount utilised as per register	Amount utilised as per Audit	Variance if any
1	Administrative support for the state	150000	150000	150000	Nil
	Balance as per register		0	0	Nil

GoI- UNDP Enhancing Institutional & Community Resilience to Disasters and Climate

2017

Sl.No	Particulars	Budget	Amount utilised as per register	Amount utilised as per Audit	Variance if any
1	Enhancing the capacity of the differently abled towards disaster risk	881000	881000	881000	Nil
	Balance as per register		0	0	Nil



For JULIE AND COMPANY
CHARTERED ACCOUNTANTS TRIVANDRUM
Firm Reg. N: 018391S

Julie G Varghese
15.9.2018

Julie G Varghese B.Com, FCA, DISA (ICAI)
Proprietor M. No. 232722



JULIE AND COMPANY
Chartered Accountants

UTILISATION CERTIFICATE

Name of the Nodal Institution :

KERALA STATE DISASTER MANAGEMENT AUTHORITY

Name of the Project Scheme :

**UNDP ENHANCING INSTITUTIONAL & COMMUNITY RESILIENCE TO
DISASTERS AND CLIMATE CHANGE
2013-2017**

This is to certify that the balance amount of Rs. 22,336.15 (Rupees Twenty Two Thousand Three Hundred Thirty Six And Paise Fifteen Only), referred in our Audit Report dated 15.09.2018 which represents interest amount and in addition to that interest accrued of Rs.236.00 (Two Hundred and Thirty Six Only) in bank account till date has been utilized for the purpose for which the grants have been released.

Certified that I have satisfied myself that the conditions on which the Grants in Aid was sanctioned have been duly fulfilled and I have exercised the following checks to see that money was actually utilized for the purposes for which it was sanctioned.

Kinds of checks exercised :

i. Bank Statements, Vouchers.

**For M/s JULIE AND COMPANY,
CHARTERED ACCOUNTANTS**

**For JULIE AND COMPANY
CHARTERED ACCOUNTANTS TRIVANDRUM :
Firm Reg N 018391S**

Julie G Varghese

**Julie G Varghese B Com, FCA, DISA (ICAI)
Proprietor M. No. 232722**



Mem. No: 232722

Date: 22.10.2018

Place: Trivandrum



An approach bridge for the house and the railway track is seen across which cuts between the islands of Munrothuruthu