



FIRE MOCK DRILL

REPORT

Main Block, Government Secretariat | 8th March 2018

Jointly Organized by

Kerala State Disaster Management Authority

General Administration Department &

Kerala Fire and Rescue Services





Ambulance of Health Services seen rushing to the Mock Drill Site, onlookers are seen on either side of the road



Fire & Rescue Service Personnel in action

1. Introduction

The Kerala Government Secretariat in Thiruvananthapuram is the seat of administration of the Government of Kerala, housing important ministries and bureaucratic offices. It is the highest echelon of state administrative structure offering locus for the exercise of authority by state Government. The secretariat refers to the complex of departments. Its political heads are the ministers while the administrative heads are the Secretaries to the Government. The Government Secretariat is a popular landmark and located in the heart of Thiruvananthapuram City.

Kerala Secretariat Complex consists of 5 blocks. North block, South block, Main block and two sandwich blocks. The main block has 3 stories and houses offices of various departments. Apart from the central block, two new blocks were constructed on either side of the central block. The North Sandwich Block, located at North Gate, houses office of Kerala Chief Minister, offices of few cabinet ministers and cabinet rooms. The South Sandwich Block houses primarily offices Government secretaries.

1.1 Mock Exercise

Mock exercises on various types of natural and anthropogenic hazards helps in inculcating a culture of preparedness and generate awareness. Mock exercises will help the government to assess the preparedness, review the crisis management system, Standard Operating Procedures and to evaluate the readiness of various departments to any disaster or emergency. Mock exercises will also give the opportunity to coordinate the activities of various agencies for their optimum utilization and to use the feedback to identify the gaps and improve the capacities of the system to face an actual disaster situation.

1.2 Objectives

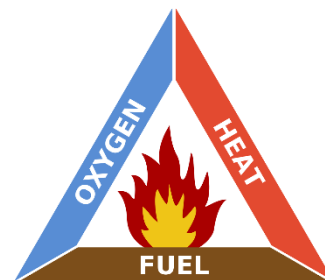
The broad objective of the mock exercise conducted in the Secretariat was to review the emergency preparedness of the Secretariat to any disaster like Fire. The other specific objectives are

- Assess the response mechanism of the first responders
- Enhance coordination among the emergency support functioning agencies
- Awareness creation among the Secretariat Staff.



2. Fire Hazard

“Fire is a good servant but a bad master” is a saying which is true with a fire hazard. Fire is a naturally occurring companion of energy released in the form of heat and light, when oxygen combines with a combustible or burnable material at a suitable high temperature. There are three components in fire viz. fuel, heat and oxygen. These three in the right combination produces fire. These three forms a ‘fire triangle’. Taking away any of the three components can extinguish fire.



Fire hazards pose threats to life and property. Fire is one of the most common hazards in the state due to which many lives and damages occur every year, hence Fire safety is very important aspect of disaster prevention. Fire can be prevented with adequate planning and proactive response at the initiation of fire.

2.1 Procedure Followed for the Drill

The need to conduct a mock drill at Secretariat was raised in the monthly evaluation meeting with the Secretaries chaired by the Chief Secretary. Hence, Kerala State Disaster Management Authority was directed to facilitate the mock drill. Mock drill on Fire was decided as fire is a probability in the Secretariat.

Joint Secretary, General Administration Department was deputed as the nodal officer for this exercise. It was decided to conduct the mock drill jointly organized by Kerala State Disaster Management Authority, General Administration Department & Fire and Rescue Services on the 8th of March 2018.

2.2 Preparatory Meetings

Three preparatory meetings were held prior to the actual conduct of the mock drill. The details are given below

- i) A coordination meeting was held on 19th February 2018 to discuss the details of the mock drill which was attended by the following officials.

Sl.No:	Name	Designation & Department
01	Honey P	Joint Secretary, GAD
02	Rajagopal K	Assistant Commissioner, Disaster Management, Land Revenue Commissionerate, Revenue Dept.
03	Noushad	Divisional Officer, Fire
04	Abdul Rasheed K	Asst. Divisional Officer, Fire
05	Rupesh S B	Station Officer, Fire
06	Arun S Nair	Dy. Collector (DM), Thiruvananthapuram
07	Suresh Kumar P B	Office of the Chief Secretary
08	Shibi Abraham	Section Officer, Disaster Management

08	Sajila T	Sr Grade Assistant, DM
09	Bipin S	Asst Engineer, (Elec)
10	Dr Anil V	Asst. Director, Health Dept
11	Praveen P	Asst. Housekeeping, Secretariat
12	Shreela PS	Asst. Engineer, Electronics
13	Rajesh V	Asst. Engineer, Civil
14	Deepu SS	Secretary, KSEA

In this meeting, it was decided to conduct the mock drill on 8th March 2018. Respective departments were directed to submit their plan for the smooth conduct of the exercise. It was also decided to conduct mass awareness to the employees of the Secretariat by the Kerala State Disaster Management Authority on this occasion.

- ii) A follow up meeting was held to review the progress on 24th February 2018. The following officials participated in the meeting.

Sl. No	Name	Designation
1	Honey P	Joint Secretary, GAD
2	Jagadeesh	Deputy Secretary
3	P B Suresh Kumar	Chief Secretary Office
4	Rupesh S B	Station Officer, Fire and Rescue
5	Bipin S	AG, Electrical
6	Rajesh V	AE, Civil, PWD
7	Sreela PS	AE, Electronics, PWD
8	Preetha P S	SO, Disaster Management Department
9	Sagila T	Senior Grade Assistant, DMD
10	Firoz S	Clerk, CLR

- iii) Secretariat Fire Mock drill preparatory meeting and awareness on 05/03/2018

Sl. No	Name	Designation
1	Sajith S T	Station Officer, Fire and Rescue
2	Sasi K	Security Officer, GOK, Secretariat
3	Rupesh S B	Station Officer, Fire and Rescue

4	Bipin S	AG, Electrical
5	Sreela PS	AE, Electronics, PWD
6	Nandakumar S S	Clerk, (For AE, PWD, Civil)
7	Preetha P S	SO, Disaster Management Department
8	Hari Krishnan M S	Assistant Protocol Officer
9	Sumod P T	SO, GA(HK-B)
10	Praveen P	Asst. , GA(HK-B)
11	Biju S	General Secretary KSSA
12	P Pradeep Kumar	KSSA
13	Deepu S S	Secretary KSEA
14	Anu S Nair	Deputy Collector, TvpM
15	Dr. Sekhar L Kuriakose	MS, SDMA
16	Firoz. S	Clerk, CLR

3. Awareness for the Employees in the Secretariat

Mock drill is also an opportunity for awareness creation. Kerala State Disaster Management Authority along with Fire & Rescue Services and GAD department visited all the sections and departments in the Secretariat on the 5th March 2018 to spread the information on fire safety and the conduct of mock drill.

The following brochure on Fire was distributed to all staff in the main block to educate more about fire hazard.

Flyer designed and shared through social media including Whatsapp



Photographs on awareness generation on Fire & Drought through one to one campaign on 5th March 2018 in all the sections of the main block of Secretariat. Educational materials were distributed widely.

4. Time Log

- 11:00am - Fire Broke out on the 2nd floor of the main block
- 11:01am - Chief Security Officer (Incident Commander) informed the District Control room, Fire & Rescue Dept. and Health Dept.
- 11:04am - Fire tenders reached the spot and started extinguishing the fire
- 11:06am - Health Department reached the spot and provided BLS & First Aid
- 11:15am - Evacuation completed
- 11:30am - Briefing Chief Secretary near the assembling area
- 11:35am - Briefing the media by CSO & Jt. Secretary
- 11:40am - All clear, back to respective desks.

4.1 Positioning of Independent Observers from SDMA

Independent observers were designated in various as follows. Each of them closely observed the entire process and response mechanism during the drill and a report was submitted on the gaps identified.

- | | |
|---------------------|---------------------------|
| 1. Development Hall | Athulya Thomas |
| 2. Main Hall | Neethu Thomas |
| 3. Finance Dept. | Anjali S Ravi |
| 4. Tax | Dr. Sreeja M U |
| 5. General Admin. | Dr. Asha Rose |
| 6. Vigilance | Ronu Mathew |
| 7. Law | Rajeev T R |
| 8. Store Purchase | Sathyakumar C J |
| 9. Housekeeping | Rajalakshmi Radhakrishnan |

5. Observations & Recommendations


Independent observers were deployed at key locations of the mock drill area to observe the process and to report the gaps identified. These gaps are given below with suggestive actions to improve the fire safety system in the Secretariat.

1. Evacuation and Exit Routes are not clearly marked or displayed

Observations	Recommendations
1.1) During the drill it was found that the staff were not aware of the shortest exit routes to the assembling areas.	1.1) Evacuation & Exit routes shall be clearly displayed in common areas of the Secretariat. The respective section

<p>1.2) Some of the corridors were filled with unused furniture and other stationery which blocked the way thereby reduced the mobility.</p>	<p>officers may direct the staff to evacuate in case of an emergency through the shortest available exit route to the assembling ground.</p> <p>1.2) The exit routes should be clutter free, so that it wont hinder timely evacuation as time is very precious in a disaster situation. There is also a risk of subsequent hazard like stampede.</p>
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2. Use of Fire Extinguishers at the Secretariat and training to the Staff.

Observations	Recommendations
<p>2.1) There are 334 fire extinguishers installed in the secretariat (including Annex 1 which has around 60). Each fire extinguisher was found to be numbered. All the extinguishers were refilled and found to be within the expiry date.</p>	<p>2.1) The purpose of conducting drills is also to test the institutional readiness to face a disaster, hence the existing fire extinguishers also should have been used to douse the fire.</p>
 <p>Each extinguisher is numbered</p> <p>Expiry date 09.01.2019</p>	<p>2.2) As office staff may also act as the first responders in case of an emergency in the office, it is recommended that staff are adequately trained to use the fire extinguishers. This will help the officers to gain confidence to use the extinguishers timely. It was noted that such training has not been provided to the staff and it is highly recommended to conduct training to all the staff of the Secretariat on Fire Safety, BLS, First Aid & Disaster Management.</p>
<p>2.2) Though these extinguishers were available, it was not used in the drill.</p> <p>2.3) Staff of the Secretariat was not involved in the drill (as responders)</p>	<p>2.3) Each floor and the respective sections should have trained staff on emergencies including first aid.</p> <p>2.4) Presently, a Fire Station Officer is deputed in the Secretariat with 1 Leading Fireman and 3 Firemen on duty. Considering the less number of Fire personnel, it is recommended that all the Security guards also get trained in Firefighting.</p>


3. Fire Alarms & Announcement system are defunct

Observations	Recommendations
<p>3.1) Fire alarms are installed in some locations of the main block, however, it was found to be defunct.</p> <p>3.2) Alert & Announcement system was also not found in place.</p>	<p>3.1) Fire alarms are very critical for immediate alert to the staff in the secretariat in case of fire or any other emergency. Hence, immediate rectification of the error has to be addressed.</p> <p>3.2) Sirens can also be used in case there is a threat to the entire secretariat. Public Announcement Systems should be there commonly for the Secretariat and for each blocks separately.</p>

4. Assistance for the Persons with Disabilities and who needs special care

Observations	Recommendations
<p>4.1) Many Persons with Disabilities (PwD) are working in the Secretariat, they may need special assistance for urgent evacuation, without difficulty. There were 22 persons with disabilities who were evacuated from the main block.</p>	<p>4.1) It is recommended to implement BUDDY system for timely assistance and evacuation of the persons with disabilities. A buddy (friend) should be pre-assigned who sits close to the person with disabilities and at the time of an emergency, he/she can assist the PwD to get evacuated along with the assistive device (if any) to a safer location or assembling area. In that way caring for the most vulnerable is important. There are more than 100 employees who are PwDs.</p> <p>4.2) Observers also found Staff who are sick (Cancer patients & Dialysis patients) in the secretariat who found difficulty in evacuation.</p>

5. Vehicle Parking


Observations	Recommendations
 <p>5.1) Secretariat is a place where many vehicles ply & park. Many official vehicles of the</p>	<p>5.1) Parking areas in the secretariat are notified, however, security personnel shall regulate the drivers strictly by avoiding parking in the 'No Parking Zone', especially if it creates obstacle for other vehicles to ply.</p> <p>5.2) It is very important to strictly avoid parking in front of the assembling area.</p>

<p>Ministers, Secretaries & Staff have to be parked inside the compound itself. It was observed that few vehicles were parked in the 'No Parking Zone' (shown in the picture), especially in front of the assembling ground. This blocked the easy access to the assembling area.</p>	
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6. Demarcate Assembling Area

Observations	Recommendations
<p>6.1) Assembling area is a designated place to gather in case of an emergency. The garden in front of the Secretariat is the most appropriate assembling area.</p> <p>6.2) As there were 1120 employees who were evacuated from the main block, assembling area could not accommodate this big number, hence they had to find place on the drive ways which created obstacle for the emergency vehicles pass through the drive way. Police had to work hard to regulate the staff.</p>  <p>6.3) It is also observed that the gate of the garden is kept under lock and key, access to this garden is generally restricted on a normal working day. The high fence around the garden is a critical hindrance to consider it as an assembly area.</p>	<p>6.1) Permanent assembling point / area should be demarcated and be known to every staff in the Secretariat. (as shown in the picture below)</p>  <p>6.2) Assembling area should be proportionate to the number of staff working in the Secretariat (Main block). Hence at least 3 – 4 locations should be pre-identified and demarcated for this purpose. Each staff should be aware about his/her assembling point. Suggestions of assembling areas are</p> <ul style="list-style-type: none"> a) Garden in front of the secretariat b) Area in front of the South block & South Sandwich block (near the banyan tree in the left corner of the secretariat) <p>6.3) Garden fence should be lowered enough so that in times of crises all individuals (including a saree wearing woman) can easily walk over.</p>

7. Installation of Electrical Circuit

Observations	Recommendations
<p>7.1) It was observed that an electrical circuit was installed between the Sections (Adjacent to Additional Secretary, Finance Dept.). This increases the risk to hazards like fire.</p> 	<p>7.1) It is highly recommended to avoid installation of electrical circuits where employees work in close proximity to the circuit.</p> <p>7.2) If the above option is not possible in the given situation, the staff who are sitting close to it shall be relocated and be given a safer place. (More vulnerable in case of fire, lightning)</p>

8. Management of Visitors

Observations	Recommendations
<p>8.1) Secretariat has to deal with a lot of visitors every day. It was observed that visitors were not briefed in any way during the drill. Particularly, on the drill day many were thronging in front of the Darbar hall for attestation purpose.</p>	<p>8.1) In an emergency situation a public alert & announcement system is also necessary to address the visitors.</p>

5.1 Feedback from the Participants (Secretariat Staff)

“Drill was very informative and effective but we didn’t get any information from the fire department and other official at the right time”

-Krishnakumar, S.O, Law Administration

“Mock exercise was beneficial for us, conducting such kind of Mock exercise in every year will helpful for the officials”

- Pushparajan, Section Officer, Law

“Felt suffocation during the fire since it was a bad odour, there is no popper emergency exits and fire alarms in this office, this is the first time that I am participating in a mock drill and it was useful”

- Mochala, Section Officer, Law (Monitoring cell)

സെക്രട്ടേറിയറ്റിൽ 'തീക്ഷിത്തം'; ഭീതിയകറ്റി ദുരന്തനിവാരണസേന



● അഗ്നിഭക്ഷണസെക്രട്ടേറിയറ്റിലെ നടത്തിയ മോക്ഡ്രിൽ

തിരുവനന്തപുരം സെക്രട്ടേറിയറ്റിൽ ദുരന്തനിവാരണസേനയുടെ സഹായത്തോടെ നടത്തിയ മോക്ഡ്രിൽ. മോക്ഡ്രിൽ സമയത്ത് അഗ്നിമുഖി സേനയുടെ സഹായത്തോടെ നടത്തിയ മോക്ഡ്രിൽ. മോക്ഡ്രിൽ സമയത്ത് അഗ്നിമുഖി സേനയുടെ സഹായത്തോടെ നടത്തിയ മോക്ഡ്രിൽ.

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Media release on the following day

6. Departments & No: of employees participated in the Drill

52 sections in the Main block, consisting of 1120 staff participated in the drill. The details are as follows:

Sl No.	Department	No. of Employees
1	Development Hall	80
2	Main Hall	40
3	Finance Dept (Budget Wing)	70
4	Home (SSB)	7
5	Transport & Revenue	7
6	Finance Dept.	3
7	Office of Secretary Finance(Resources)	12
8	Joint Secretary(Govt. Finance)	3
9	Office of Secretary Water Resource dept.	12
10	Special Secretary Appellate Authority (Law)	5
11	Office of Principal Secretary PWD	8
12	Joint Secretary (Finance Dept.)	3
13	Home dept. Secret Section	12
14	General Administration Secret section	6
15	Office of Executive Ass. To C.S.	3
16	Add. Secretary Home dept.	4
17	Add. Secretary & chief State Protocol Officer (Political dept.)	4
18	Principal Secretary SCSTDD, Forest & Wildlife etc.	6
19	Additional Secretary Home dept.	3
20	Secretary Help desk	20
21	A.C.S Revenue	12
22	Petition cell(SPIO,SSA, Home etc)	6
23	Dept. of Tax	40
24	Law Secretary	6
25	General Administration Dept.	50
26	Accounts –A	25
27	Vigilance	45

Sl.No:	Section	No: of Employees
28	PAB	9
29	House keeping	3
30	J.S. Law dept.	11
31	Law dept.	30
32	Law Library	6
33	Law Publication	15
34	Niyama Nirmanam	230
35	Store Purchase	70
36	Under Secretary Finance	35
37	Central Library	15
38	Electronics & IT	15
39	Deputy Secretary Cultural Affairs	2
40	Chief Security Officer	3
41	ACS Home & Vigilance	9
42	Food Secretary	4
43	Housekeeping A	50
44	Under Secretary General Admin.	9
45	Accounts -B	21
46	J.S. General Admin.	3
47	IT Cell	6
48	Central Agency	2
49	Chief Reception office	4
50	Store Purchase -A	6
51	Backward Development	30
52	Attestation Dept.	40
	Total	1120

7. General Observation

- During the drill 1120 employees were evacuated and assembled in the assembling area, out of which 22 were persons with disabilities.
- The response time of Fire & Health departments were found to be satisfactory, however, the evacuation time of all the employees could have been quicker. Suggested time would be 3 to 5 minutes.
- Efficient Fire tenders with adequate fire men were deployed to the site from Chengalchoola & Chaka fire stations. Three ambulances with doctors and nurses also were rushed to the spot.
- The fire hydrants installed in the yards were used after the drill and was found working.
- Debriefing session (post drill) was not done with the staff on the lessons learnt in the mock drill. This is important to share the learning.
- 5% of employees did not cooperate with the drill. Many were found to be inside the building while their colleagues were evacuating. Refer the following photograph.



Photo courtesy | I & PRD Department, Government of Kerala

Independent Observers & Contributors | Hazard Analysts, SEOC - Rajeev T.R, Dr Asha Rose, Dr Sreeja M U, Anjali S Ravi, Sathyakumar CJ, Athulya Thomas, Neethu Thomas, Rajalakshmi Radhakrishnan, Ronu Mathew

Report Prepared by | Joe John George, State Project Officer, SEOC, KSDMA

Report Approved by | Dr Sekhar L. Kuriakose, Member Secretary, KSDMA



Chief Secretary being briefed after the drill in front of the assembling area.



Media personnel being briefed by Jt. Secretary, GAD & CSO, Secretariat

Glimpses of the mock drill through the lens of I & PRD cameramen

