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COVID 19: Impact, Mitigation, Opportunities and Building Resilience

From Adversity to Serendipity

*Perspectives of global relevance based on
research, experience and successes in
combating COVID-19 in Sri Lanka*

Volume 01

Editors:

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(edited by)

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Integrating pandemic and epidemic into disaster management/ disaster risk reduction mechanisms in Sri Lanka: From the perspective of local government authorities

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ABSTRACT

Covid-19 has affected both developed and developing countries. Sri Lanka is no exception to other countries in the region, and was able to manage the pandemic at the initial stage with a certain element of success. The local government authorities have also contributed towards the pandemic response measures, though they do not have any legitimate duty in disaster management. Hence, the study was conducted to gain an understanding of the experiences of the local government authorities, in responding to the COVID-19 pandemic outbreak in Sri Lanka. In answering the research aim, the study conducted a literature review and key informant interviews with the officers engaged in local government authorities in Sri Lanka. Seven key informant interviews were conducted using an interview guideline. Accordingly, the study presents the involvement and the role of the local government authorities in overall disaster risk reduction, encompassing the specific roles during the COVID-19 response period. In this study, eleven key aspects were identified as the challenges which the local government authorities faced while performing the related duties during the COVID-19 pandemic. Accordingly, based on the outcome of the interviews, relevant suggestions are presented to address the challenges and strengthen future pandemic response measures. The study findings also justify the importance of integrating the local government authorities into activities related to pandemic preparedness, adopting response measures and disaster risk reduction/disaster management system in Sri Lanka.

Key words: *Local government authorities, Sri Lanka, Pandemics, Disaster risk reduction, COVID-19*

1. INTRODUCTION

Sri Lanka has been susceptible to the Covid-19 pandemic as the rest of the world and the first COVID-19 patient in the country was confirmed on the 27th of January 2020. Since then, the number of cases has gradually risen over the recent period. As of second week of February 2021, more than 74,000 confirmed or positive cases, 67,000 recovered patients and

390 deaths have been recorded in Sri Lanka (WHO, 2021).

At the beginning of the pandemic, the active or positive cases were limited to 217, with only 11 fatalities being recorded in Sri Lanka (WHO, 2021). These figures exhibit the success in controlling the community spread of the virus and the treatment of COVID-19 patients in the country. Sri Lanka followed strict lockdown measures, contact tracing and

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isolation at the beginning of the pandemic and thereafter there was a gradual relaxation (Ediriweera et al., 2020; Hettiarachchi et al., 2020; Jayatilleke et al., 2020).

The COVID-19 Stringency Index (C19SI) revealed the Sri Lanka's expansive stringent measures as 97% successful, within two weeks of discovering the second COVID-19 patient in the country (Jayatilleke et al., 2020). A similar index, the Global Response to Infectious Disease (GRID), also confirmed the effectiveness and efficiency of the health systems' preparedness to address the COVID-19 pandemic in the country. Accordingly, Sri Lanka was ranked in 10th place, demonstrating its efficiency and effectiveness in the GRID (D'Souza, 2020). These sources have shown satisfactory results compared to other neighbouring countries in the region.

Sri Lankan pandemic response measures have been carried out collectively with the participation of multi-stakeholders attached to the Sri Lankan public administrative system (Amaratunga et al., 2020). Local Government Authorities (LGAs) are one such stakeholder contributing to the pandemic response measures in the country. LGAs services range from providing basic facilities to raising awareness among communities at risk (Hettiarachchi et al., 2020; World Vision, 2020).

However, the integration of LGAs in disaster management was not well coordinated within the national disaster management system in Sri Lanka (Malalgoda et al., 2016). None of the local government statutes in Sri Lanka have referred to disaster management until the National Policy on Local Government was introduced in 2009 (MacAskill & Guthrie, 2016). Until then, the LGAs' engagement was limited to getting involved in postdisaster response efforts instead of being engaged in preparedness planning measures (MacAskill & Guthrie, 2016).

Sri Lanka's disaster management structure is operated through the central government system by the Disaster

Management Centre (DMC) and the Ministry of Disaster Management (Ministry of Disaster Management, 2010). Hence, most functions are coordinated and carried out within the central government system administered by the DMC along with other government institutions such as District Secretaries (DSs), Divisional Secretaries etc. . The Presidential Task Force (PTF) has been entrusted with the responsibility of administering the prevailing COVID-19 pandemic situation in Sri Lanka.

This study was conducted to highlight the role of the LGAs during the COVID-19 response stage to justify the significance of integrating LGAs with the overall disaster risk reduction efforts in Sri Lanka. Besides, the study also intends to identify any challenges that the LGAs encountered during the response efforts and accordingly, to propose relevant recommendations towards strengthening pandemic response measures with the integration of LGAs in the disaster management system in Sri Lanka.

2. METHODS

The study adopted a qualitative multi-method system for achieving study objectives. Qualitative methods are suitable for either developing theories or conceptual frameworks or examining participants' meaning and relationships (Saunders et al., 2019). Researchers use qualitative methods in disaster related studies due to its appropriateness and advantages (Collins & Kapucu, 2008; MacAskill & Guthrie, 2016; Malalgoda et al., 2016; Phillips, 1997).

The qualitative multi-method was the chosen methodology for this study. The decision was based on the study's objective to interpret participants' views regarding the contribution made by local governments, and also to identify the strengths as well as the challenges experienced, during the COVID-19 pandemic in Sri Lanka.

Qualitative methods allow non-probability sampling data collection techniques (Saunders et al., 2019) and accordingly this study adopted

such a sampling method to collect the required data. An interview guideline was developed based on the findings of the literature review done using refereed articles, related official websites and reports. The key informants in the LGAs were selected according to the convenient sampling method and seven semi-structured interviews were conducted.

The key-informant interviewees represented Chairmen from two Pradeshiya Sabhas (Wattala & Akurana), a Chairman from an Urban Council (Beruwala), Mayors from two Municipal Councils (Rathnapura and Jaffna), a Commissioner from a Provincial-Local Government (Eastern Province) and a Commissioner from a Municipal Council (Polonnaruwa). The interviews were recorded using a voice recorder and transcribed manually while all the interviewees were given an identification number with the acronym "INT" and ranging from INT1 to INT7. The transcribed data were analysed and presented as thematic analysis.

Furthermore, a documentary review was conducted as part of the qualitative multi-method and it helped to understand the legislative and policy background of LGAs in Sri Lanka. Accordingly, the National Policy on Local Government, Sri Lanka Comprehensive Disaster Management Programme 2014-2018 and the National Policy on Disaster Management were referred as part of the documentary review.

3. FINDINGS

3.1. The governance structure of LGAs in Sri Lanka

The Sri Lankan governance structure comprises three layers; i.e. the Central Government (CG), Provincial Councils (PCs) and Local Governments (LGs). The local government bodies are collectively known as local authorities and therefore, in this study LGAs refer to entities that belong to local authorities in Sri Lanka. Accordingly, LGAs comprises Municipal Councils, Urban Councils and Divisional Councils (also known as Pradeshiya Sabhas) (MacAskill & Guthrie,

2016; Malalgoda et al., 2016). The presence of LGAs can be traced back to 4th Century B.C. and over a period of time LGAs have evolved to provide rudimentary public services at local level, ranging from land utilisation services to disaster risk reduction (DRR).

The LGAs do not derive the mandates and powers from a single codified statute. There are three central acts which govern LGAs namely, the Municipal Council Ordinance No. 29 of 1947, the Urban Councils Ordinance No. 61 of 1939 and the Pradeshiya Sabha Act No. 15 of 1987 along with subsequent amendments. The Pradeshiya Sabhas have been vested with powers under the existing laws while the Provincial Councils have the authority to confer additional powers on local authorities (GOV.SL, 2009).

3.2. The role of LGAs in disaster risk reduction

Local government is regarded as an organised social entity that is acting as an agent of the state, assisting in the governance system through its political mechanism (Khan & Ara, 2006).

In terms of disaster risk reduction, local governments are recognised as the most appropriate administrative level to engage in disaster management (Col, 2007; Kusumasari et al., 2010; Manda, 2014). Local government acts as the city's leader and the closest government body to the local population. Hence, local governments are better positioned to engage in the local DRR activities, addressing the concerns of the communities in an efficient and effective manner (Khan & Ara, 2006; Saito, 2007). These institutions can engage as the first line of response and defence in disaster situations, incorporating local knowledge and resources (Manda, 2014).

Disasters are often known to be local events (Solway, 2004) and the relevant responsible authorities can identify the vulnerable people in areas which are likely to be impacted by disasters, raise awareness campaigns, disseminate disaster mitigation

guidelines, ensure adequacy of first aid and train members in the community for better preparedness planning (Solway, 2004). Therefore, several scholars have suggested involving local governments in disaster risk reduction planning and related activities (DRR) (Bajracharya et al., 2011; Col, 2007; Dzigbede et al., 2020; Malalgoda et al., 2016; Saito, 2007). Similarly, the UN-ISDR has identified local governments as critical stakeholders in making a city resilient to disasters and reducing the risk and impact of likely disasters (UN-ISDR, 2012).

The role of LGAs within the Sri Lankan DRR framework is controversial. At present, Sri Lankan LGAs perform a supportive role in emergency response and recovery activities since these institutions face certain capacity constraint and have not been legally empowered in implementing any DRR measures (Malalgoda et al., 2016). The relevant governing statutes do not specify the role of these LGAs in responding to disasters. Hence, the Sri Lanka Disaster Management Plan (2014-2018) highlighted the importance of incorporating national-level disaster management policies with local level strategies, to strengthen DRR efforts in Sri Lanka (Ministry of Disaster Management 2014).

Nevertheless, a recent improvement in LGAs could be identified with the introduction of the National Policy on Local Government (NPLG) of 2009. In view of that, LGAs have the right to engage in public health and sanitation, public utility services, thoroughfare and general welfare of communities. The NPLG specifically states that LGAs must formulate a comprehensive area specific plan of action to manage disasters based on locally implemented strategies for DRR and disaster management (DM) and the existing rapid response systems. According to the policy, the LGAs must obtain technical guidance from relevant ministries and technical authorities when formulating such a plan of action. The process enables LGAs to identify disaster-prone areas, potential disaster risks and hazards effectively while it further specifies the necessity of aligning any plan of action and operational guidelines to the

Sri Lanka Disaster Management Act, No: 13 of 2005 (GOV.SL, 2009).

Section 4.1.4.4 of the NPLG states that any significant local development projects carried out under the Urban Development Authority Act and the Urban Settlement Development Authority Act must consider the impact of frequently occurring disasters (GOV.SL, 2009) considering as a duty of LGAs' disaster preparedness strategy. According to Section 4.1.4.9 of the policy, the LGAs should be pro-actively involved as the planning authority of disaster preparation, mitigation and management within the overall district framework for disaster management. LGAs can formulate a proactive vision, supplementary plans and strategies for local development with minimal threat of natural disasters on human settlements and supporting infrastructure. Besides, the inter-ministerial consultations provide direction and technical guidance to LGAs and the related partners in discharging their statutory responsibilities in environmental improvement, management, prevention and mitigation of disasters, within the overall district framework (GOV.SL, 2009).

The Sri Lanka Comprehensive Disaster Management Programme (SLCDMP) (2014 – 2018) also recognises the significance of strengthening LGs to support national-level policy implementation through capacity building of local authorities, planned within the stated period (Ministry of Disaster Management, 2014). Its second output focused on introducing legal framework to mainstream DRR concepts in LGAs. Furthermore, this programme has given due recognition in identifying the Grama Niladhari (GN) as a critical Local Government Officer (LGO) entrusting the implementation of the National Disaster Resilience Framework (NDRF) at village level. The GNs closely work with locally established disaster management committees and community-based organisations to catalyse DRR and climate change adaptation (CCA) measures at grass-root level. The association or links with local agencies are based on the GN level disaster management plans, including

disaster mitigation and adaptation measures (Ministry of Disaster Management, 2014).

Moreover, the National Disaster Resilience Framework (NDRF) and regulations related to Provincial Councils were also referred in identifying the DRR related functions within LGAs (GOV.SL, 2009). The NDRF has implemented several projects to empower the LGAs and developing and piloting of GN level hazard maps and risk profiles as done by DMC is one such project .

3.3. The role of LGAs during the COVID-19 pandemic response phase

After exploring the designated role of LGAs in DRR within the legislative and policy context, the following section explains the role of the LGAs during the COVID-19 pandemic response stage in Sri Lanka, based on the interviews conducted.

3.3.1. Coordination of provision of subsidised grocery packs:

According to INT1, LGAs have coordinated the provision of subsidised essential grocery packs to families living under quarantine conditions and in lockdown areas. These grocery packs were made by purchasing vegetables from the Dambulla central vegetable distribution market which were distributed at village level through the local Cooperative (Samupakara) system. For example, in the area of Wattala, the LGAs distributed 1200 food packs worth LKR 750 at a subsidised price of LKR 350.

3.3.2. Supporting government relief allowance distribution:

INT1 pointed out that LGAs support Samurdhi officers to distribute LKR 5,000.00 as a monthly relief allowance provided by the Government to all entitled Samurdhi recipients. Though this was not within the mandated responsibility of the LGAs, the relevant officers got involved as the agent of the localities.

3.3.3. Assuring the safety of public areas:

According to INT1, LGAs assist in disinfecting public areas such as markets, bus stops, railway stations, schools, police stations etc. since LGAs have had experience of handling epidemics in the past. As an example, LGAs get involved in cleaning public places to ensure that the areas will not become breeding grounds for dengue , as explained by INT7.

3.3.4. Controlling public gatherings:

LGAs administer local public places and , have the authority to control public gatherings conducted in such locations. INT5 explained how LGAs worked tirelessly to ensure no mass gatherings are held in such public places and that social distancing rules are followed once the lockdown has eased and when gatherings are held. .

3.3.5. Waste management:

Another duty performed by the LGAs during the pandemic response is waste management, including contaminated waste. As explained by INT5, employees of LGAs, especially the health labourers were involved in collecting waste from households, and managing contaminated waste from quarantine centres and hospitals treating COVID-19 patients.

3.3.6. Creating awareness:

LGAs also played a pivotal role in raising awareness of the importance of anti-contamination practices to be followed by the general public. INT5 explained how LGAs in Trincomalee district had used social media platforms to disseminate information on safety measures to be followed at civilian level to be safe from COVID-19. INV6 too explained how local health officers (LHOs) played a significant role as trained health care professionals with a technical background in raising awareness about the pandemic and importance in following health guidelines and regulations imposed

3.3.7. Provision of basic facilities at the quarantine centres:

INT5 explained how LGAs supported the state-operated quarantine centres in providing basic facilities such as water and sanitation. INT1 added an example of the four hundred-odd Army personnel whose leave was cancelled and brought to the quarantine centre operating at the Kerawalapitiya school in Wattala. The LGAs in the area were required to provide water and sanitation facilities as advised by the Wattala Pradeshiya Sabha. Provision of essential services and infrastructure facilities to the general public during the COVID-19 pandemic was no easy task.

3.3.8. Administering the foreigners in the area:

LGAs oversaw and administered the basic needs of the foreigners residing within the respective LGA areas. INT3 explained how the Beruwala Urban Council managed and helped 34 COVID-19 patients who were Chinese descendants residing within the town limits of the gem business area

3.3.9. Supply of medication and disinfected materials:

INT2 explained the role of LGAs in stocking up of suitable medication, face masks and disinfectant liquid for efficient distribution among families who unable to afford such items.

3.3.10. Establishing local level COVID-19 pandemic response committees:

According to INT4, LGAs led the establishment of local-level COVID-19 Pandemic Response Committees together with representatives from the PCs, local centres of the Ministry of Disaster Management and local level health officers. They gathered once in every two weeks to discuss the strategic approaches that were to be adopted at local level in mitigating the spread of COVID-19.

3.3.11. Implementing National Committee directives:

INV1 stated that LGAs worked hand in hand with key stakeholders such as Public Health Inspectors (PHIs), other LHOs, police, tri-forces and others, in implementing the national directives. INV4 added that LHOs worked under the supervision of the Health Promotion Bureau (HPB) to achieve risk communication and community engagement at a local level.

3.3.12. Provision of early warning:

INT2 emphasised on another role played by LGAs in issuing early warnings in their localities using basic equipment. LGAs in Akurana used loudspeakers provided by the DMC to issue EWs related to the pandemic when the virus had penetrated the area. Furthermore, LHOs under the supervision of the Health Promotion Bureau (HPB) were involved in activities related to risk communication and community engagement at a local level.

3.3.13. Monitoring self-isolation process at local level:

PHIs as local health officers monitored the self-isolation processes of individuals suspected being in contact with COVID-19 positive patients. Furthermore, the LHOs also coordinated the transfer of persons showing symptoms of COVID-19 to state-run quarantine centres and local hospitals.

3.3.14. Strengthening the fragmented administrative system:

INT4 noted that COVID-19 was a novel challenge for the entire national administration of Sri Lanka and that DM mechanisms were introduced on a trial and error basis as the disaster unfolded. He also noted that, COVID-19 has helped to bring into together a fragmented local administration system comprising of the LGAs, LHOs, police force and the PC of the Rathnapura province, to work collaboratively through a newly established

Disaster Management Committee under his leadership.

Based on the above information, LGAs can be identified as a major stakeholder in Sri Lanka's fight against the COVID-19 pandemic. The evidence also provides enough justification as to why LGAs should be adequately integrated into the country's disaster management system. Nevertheless, the interviewees revealed some challenges faced by LGAs while carrying out their duties during the COVID-19 pandemic. The following section highlights the challenges and proposed recommendations.

3.4. Challenges faced by LGAs during the COVID-19 response efforts

The challenges were classified into key thematic areas as presented below.

3.4.1. Unnecessary political interference:

Several interviewees highlighted unnecessary political interventions faced by local government officers (LGOs) during the pandemic response stage. For example, INT1 explained how there had been unwanted political influences over distribution of relief affecting the effectiveness of the DRR measures. The LGAs were authorised to provide groceries at a subsidised prices to local villages. Nevertheless, several politicians in the area attempted to intervene, targeting the impending parliamentary election scheduled in August 2020. Further, the interviewee highlighted how politicisation and consequential unionisation of the public health authorities acted as an obstacle for the public health authorities to be appropriately involved in local level pandemic responses.

3.4.2. Conflicting role in DRR planning:

LGAs face an identity conflict regarding the respective role in the DRR planning activities in Sri Lanka. This unclear role of LGAs is as a result of inadequate legislative and policy background, as noted by INT4. The absence of a clear governing document explaining the mandates and powers of LGAs

within the pre, during and post-disaster stages has caused the ambiguity of roles.

3.4.3. Direct access to state funding is limited:

LGAs faced funding limitations during this pandemic response stage while performing duties. As explained by INT3, the Provincial Councils are resourced for COVID-19 relief distribution, while LGAs were held accountable in investing the funding for pandemic response activities. INT3 explained the reasons for LGAs not receiving direct state funding for disaster management and hence these institutions need to utilise the reserve budget for DM purposes. As a result, many LGAs faced liquidation challenges to such an extent that, it was difficult to pay the employees as the funds were utilised for COVID-19 response measures. The interviewee further emphasised the risk of facing a second wave of COVID-19 as the LGAs do not have excess financial capacity to respond to the resurgence of the pandemic.

3.4.4. Absence of inter-agency accountability:

LGAs face the challenge of inter-agency accountability. INT4 explained that the LGAs were not held accountable for the any responsibilities in local DRR planning. When COVID-19 struck, the PCs were directly provided with state funds and a monitoring mechanism was not adopted to administer the use of these monies. INT1 provided two examples to highlight the lack of oversight as a result of non accountability and arbitrary decisions taken by the local administrative authorities, receiving funds and support from the Central Government.

3.4.5. Lack of appreciation and disappointment:

INT6 identified another challenge faced by LGOs was that despite the commitment demonstrated by in battling the community spread of the COVID-19, the higher authorities extended their appreciation to the health officers, police and members of the tri forces. Hence, LGAs' officers were not adequately appreciated by the governmental authorities

and general public. Non-recognition of the services rendered by LGOs has created disappointment among officers in the LGAs.

3.4.6. Inadequate representation in local

Disaster Management Committees (DMCs):

Another critical challenge faced by LGAs in Sri Lanka during the pandemic situation is the inadequate representation of LGAs in local level DM committees. INT5 added that LGAs are rarely consulted when preparing local DM plans and as a result the first hand experiences of LGAs are not being considered.

3.4.7. Lack of communication:

Due to lack of communication among the institutions, coinciding actions have been taken by various administrative authorities operating within a province. INT1 provided an example stating that ten permits were issued to transport vegetables to Wattala during the lockdown period. The Provincial Secretary's office issued these permits on personal preferences to a single local businessman instead of issuing the permits to existing vegetable sellers. A similar situation was reported when transporting fish while the permits have been outsourced to a businessman in Mattakuliya. The two examples demonstrate as to how lack of communication between officials affected the accountability in decisionmaking.

3.4.8. Delay in EW communication at local level:

INT2 noted that the basic equipment provided by DMC to Akurana for early warning purposes were used to communicate COVID 19 related updates, when the virus had affected the area. Advance warnings in the area of Akurana was not practised beforehand, when there were clear warning signs about the spread of the virus at national level. Furthermore, disaster preparedness does not take into account all facets of the diverse disaster experienced by the country. For example, certain villages of Akurana experienced periodic flooding when the sluice gates of the Polgolla dam were opened. However, there is no coordinated effort

in disaster preparedness for such flooding, which means that the people are only warned a day or two before the sluice gates of the dam are to be opened.

3.4.9. Lack of experience:

INT5 noted another challenge faced by LGAs is the lack of experience in utilising the early warning systems in the case of biological hazards.

3.4.10. Limited resources:

The overall capacities of LGAs are affected by resource limitations, according to comments made by INT3 and INT6. They emphasised that due to lack of adequate resources, the overall capacities of LGAs are affected in responding to a more extensive pandemic with a higher reproduction rate. The existing technical capacities and access to equipment within LGAs is limited. These capacity constraints threaten the safety of the staff, due to insufficient safety equipment such as face masks, gloves, boots etc. especially for health labourers as they are involved in disposing contaminated waste collected from local quarantine centres and hospitals. Further, there is insufficient disinfectant and hand sanitiser stocks to be used in a future pandemic situation. The interviewee also noted that in Beruwala, the PHI and MOH officers were not properly geared to deal with the general health issues in the area during, the COVID-19 pandemic.

3.4.11. Limited priority for disaster risk reduction:

Another issue faced by LGAs during the pandemic response is the lack of priority given for DRR planning by the Ministry of Disaster Management as explained by INT1. The Ministry focuses on emergency response and treats this as its sole mandate.

3.5. Suggestions for overcoming the challenges faced by LGAs a to create a pandemic resilient society

To address the above mentioned challenges, the interviewees proposed several recommendations as presented below.

3.5.1. Capacity building:

As stated above, most LGOs faced challenges in handling the pandemic situation due to a lack of experience and knowledge. Hence, INT6 proposed to introduce capacity building programme among LGOs. INT5 proposed three capacity-building measures i.e. provision of training on provincial and district level planning, enhancing the effectiveness of epidemic and pandemic response and conducting a Training of Trainers (TOT) programme and also for LGOs to conduct awareness programmes among the public. Such training must be supported through funding and sharing of technical knowledge and should be focused on providing a sound understanding of existing best practices in handling biological disasters. Training is essential for health labourers (sanitation workers) and garbage collectors to manage hazardous waste material and should be provided with the necessary safety equipment like goggles and gloves. Another recommendation, is to introduce disaster management as a mandatory training for all LGOs since there is a significant number of officers who not aware and familiar with the Disaster Management Act of 2005.

3.5.2. Integration of pandemic into DRR:

The integration of pandemic response into DRR planning is suggested to overcome the issue of limited priority for disaster risk reduction in the country. According to INT5, a second wave of the pandemic is anticipated. Hence, integrating pandemic response measures into local level DRR planning would help LGAs take early action in dealing with future pandemics. Besides, a review of the PCs and LGAs mandates were recommended as necessary in order to mainstream pandemic into DRR.

3.5.3. Introduce representatives from LGAs for involvement in disaster management:

Based on legal and policy measures, LGOs can be appointed to disaster management committees to avoid the minimum representation of LGAs in such committees at the local level. Each district must establish a disaster management council that includes representatives from the LGAs. Such Councils were established temporarily to respond to COVID-19 pandemic and the interviewees suggested that these councils should function throughout the year to respond to any future disasters.

3.5.4. Provision of resources:

LGAs' can be empowered by increasing the carder provisions. The existing carder policies date back to 1940s enacted under the Pradeshiya Sabhas. To address the limited financial allocation for LGAs controlling the COVID-19 situation, additional financial support from the central government must be allocated to the LGAs in order to address the financial constraints experienced in containing the pandemic. Such extra allocation is essential to respond to a potential second wave of COVID-19, as the existing monetary reserves have been used to contain the first wave. Extra funding can be used to purchase necessary equipment and expand infrastructure capacity. The recommendation was to increase the budget of the LGAs to include at least an allocation of LKR 3 million as a disaster management reserve.

3.5.5. Introduce proactive DRR:

The interviewees recommended introducing proactive measures to prioritise DRR. One such strategy is to redefine the terms disaster and disaster management. The present circulars and procedures allow the Ministry to react to natural disasters. Nevertheless, the existing system should allow the Ministry to act in pre-disaster scenarios in a proactive manner. Disaster preparedness must be considered as a priority of the DRR and DM mechanisms of Sri Lanka. Proactive measures should be specifically introduced to

manage biological disasters in the future with the experience gained from managing the COVID-19 pandemic.

3.5.6. Strengthen coordination among various stakeholders:

Minimum coordination between stakeholders was identified as a challenge faced by LGAs. All LGAs should be incorporated in Sri Lanka's DRR process which would reduce the coordination and duplication of work and wastage of resources caused due to lack of communication between stakeholders. Sectorlevel coordination amongst various local government stakeholders could be improved by creating sustainable inter-stakeholder partnerships.

3.5.7. Due recognition for the service rendered by LGAs:

The overall governmental administrative hierarchy must recognise the service rendered by the LGAs to avoid disappointment among LGOs. Appreciation of LGOs will ensure higher human resource productivity amongst the LGAs. Similarly, a consultative workshop with commissioners of local government in Provincial Councils, Sri Lanka Institute of Local Governance, representatives from the Association of Mayors and Chairmen of Local Authorities (LAs) must be organised to identify the role of local governments in Epidemic Risk Reduction (ERR), with specific reference to pandemic and epidemic responses.

3.5.8. An efficient chain of communication:

An efficient chain of communication must be established between the Ministry and the LGAs either by nominating a focal point or introducing a hotline. Efficient communication will support LGAs to reach the Ministry in times of need and to reduce the existing gap in disseminating relevant information. Such a chain of communication also avoids the duplication of work and the abuse of power between agencies. LGAs are required to act as "information hubs" and hence, such local agencies must be well informed of existing realities.

3.5.9. Establish Inter-Agency Accountability in terms of DM:

There should be a system of "Inter-Agency Accountability" established in terms of DM. The inter-agency accountability avoids the issue that each governmental agency seeks to conduct its programmes without any responsibility and accountability to the other agencies. It is needed to establish a system where by PCs and LGAs can monitor DRR interventions during an epidemic or pandemic

3.5.10. Provinciallevel DR framework:

A Provincial Council Disaster Response Framework must be adopted for the nine PCs operating in the country. Such a framework would direct the PCs to develop localised DRR and DM plans based on the unique circumstances of each province in terms of the propensity for disaster exposure. Based on this, a technical and an operational guideline can be prepared for pandemic and epidemic riskbased planning and disaster management at GN level.

3.5.11. Establishing an adequate Early Warning System (EWS):

The necessity of an adequate early warning was proposed for districts that experience natural disasters. In most localities, EWSs are restricted to a set of loudspeakers that are connected to a three-wheeler which goes around the local villages communicating about potential occurrences of any disasters.

3.5.12. Locallevel DM council:

Each district can establish a disaster management council that includes representatives from the LGAs. During the COVID-19 pandemic, such councils were established temporarily to respond to the pandemic. The recommendation of the interviewees was to continue such councils throughout the year to respond to various disasters in the future.

3.5.13. Implementing the National Emergency Operations Procedures (NEOP):

DM plans of different agencies should conform to the National DM plan and the National Emergency Operation Plan of the DMC. Various DM activities must encompass the Provincial and local government set up along with the support extended by the DMC and other national level institutions. This aspect should receive the highest priority.

4. CONCLUSIONS

LGAs are identified as the closest and most suitable institution for handling disasters. During the outbreak of COVID-19, the Sri Lankan LGAs have proven the capabilities by rendering the services across many aspects in pandemic response and handling relevant matters. However, the role of LGAs has not been adequately recognised and incorporated into the present disaster management system in Sri Lanka. This study provides adequate and substantiated evidence to consider integrating LGAs with the present disaster management system in Sri Lanka. While performing the services during the COVID-19 pandemic situation, LGAs have faced several challenges and this study provides recommendations based on the interviews conducted. As per the findings of the study, policymakers can introduce necessary interventions to address the challenges towards building a resilient society, to face the emergence of a second wave of the COVID-19 pandemic in Sri Lanka.

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REFERENCES

- Amaratunga, D., Fernando, N., Haigh, R., & Jayasinghe, N. (2020). The COVID-19 outbreak in Sri Lanka: A synoptic analysis focusing on trends, impacts, risks and science-policy interaction processes. *Progress in Disaster Science*, 8, 100133.
- Bajracharya, B., Childs, I., & Hastings, P. (2011). Climate change adaptation through land use planning and disaster management: Local government perspectives from Queensland. 17th Pacific Rim Real Estate Society Conference, Col, J. M. (2007). Managing disasters: The role of local government. *Public administration review*, 67, 114-124.
- Collins, M. L., & Kapucu, N. (2008). Early warning systems and disaster preparedness and response in local government. *Disaster Prevention and Management: An International Journal*.
- D'Souza, C. (2020). GRID Index: Tracking the Global Leadership Response in the COVID-19 Crisis. In.
- Dzigbede, K. D., Gehl, S. B., & Willoughby, K. (2020). Disaster resiliency of US local governments: Insights to strengthen local response and recovery from the COVID-19 pandemic. *Public administration review*, 80(4), 634-643.
- Ediriweera, D. S., de Silva, N. R., Malavige, G. N., & de Silva, H. J. (2020). An epidemiological model to aid decision-making for COVID-19 control in Sri Lanka. *PloS one*, 15(8), e0238340.
- GOV.SL. (2009). *National Policy on Local Government* Sri Lanka: Government of Sri Lanka
- Hettiarachchi, D., Noordeen, N., Gamakaranage, C., Somarathne, E. R. B. D., & Jayasinghe, S. (2020). Ethical Responses to the COVID-19 Pandemic—Lessons from Sri Lanka. *Asian Bioethics Review*, 1-9.
- Jayatileke, A. U., Dayarathne, S., de Silva, P., Siribaddana, P., Abeygunawardana, R. A., Nieveras, O., de Silva, N., & de Silva, J. (2020). COVID-19 case forecasting model for Sri Lanka based on Stringency Index. *medRxiv*.
- Khan, M. R., & Ara, F. (2006). Women, participation and empowerment in local government: Bangladesh union Parishad perspective. *Asian Affairs*, 29(1), 73-92.
- Kusumasari, B., Alam, Q., & Siddiqui, K. (2010). Resource capability for local government in managing disaster. *Disaster Prevention and Management: An International Journal*.
- MacAskill, K., & Guthrie, P. (2016). Disaster risk reduction and empowering local government—a case comparison between Sri Lanka and New Zealand. *International Journal of Disaster Resilience in the Built Environment*.

- Malalgoda, C., Amaratunga, D., & Haigh, R. (2016). Overcoming challenges faced by local governments in creating a resilient built environment in cities. *Disaster Prevention and Management: An International Journal*, 25(5), 628-648. <https://doi.org/10.1108/DPM-11-2015-0260>
- Manda, M. Z. (2014). Where there is no local government: addressing disaster risk reduction in a small town in Malawi. *Environment and Urbanization*, 26(2), 586-599.
- Ministry of Disaster Management. (2010). *National Policy on Disaster Management*. D. S. R. o. S. Lanka.
- Ministry of Disaster Management. (2014). *Sri Lanka Comprehensive Disaster Management Programme 2014-2018*. Sri Lanka: Ministry of Disaster Management
- Phillips, B. D. (1997). Qualitative methods and disaster research. *International Journal of Mass Emergencies and Disasters*, 15(1), 179-195.
- Saito, T. (2007). Disaster management of local government in Japan. National Workshop, organized by UNCRD and Japan-Peru Center for Seismic Research and Disaster Mitigation (CISMID)/Peru National University of Engineering (UNI),
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (Eighth ed.). Pearson.
- Solway, J. S. (2004). Reaching the Limits of Universal Citizenship: Minority Struggles in Botswana. *Ethnicity and democracy in Africa*, 128-147.
- UN-ISDR. (2012). *How to make cities more resilient: a handbook for local government leaders*, .
- WHO. (2021, 30 06 2020). *Coronavirus disease (COVID-19) pandemic*. World Health Organization. Retrieved 12 01 2021 from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- World Vision. (2020). *COVID-19 Global Health Emergency Response in Sri Lanka: Keeping our children and communities safe*. World Vision. Retrieved 14 02 2021 from <https://www.wvi.org/covid-19-response-srilanka>