

The Rohingya refugee crisis in Bangladesh: An analysis of the involvement of local humanitarian actors

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Abstract

Since August 2017, more than 700000 Rohingya have sought refuge in Bangladesh from neighbouring Myanmar, resulting in an unprecedented humanitarian crisis. A significant endeavour is taking place involving various humanitarian actors for the provision and overall management of the humanitarian activities in Rohingya refugee camps. The article studies the configuration and evolution of the humanitarian operations with the aim of identifying the extent of Localisation, i.e. involvement of the Bangladeshi actors in the management of the camps in the early stage (1-2 years) of the crisis. It employs a quantitative method by analysing the 4W data of the United Nations Office for the Co-ordination of Humanitarian Affairs. Network analysis suggests that the humanitarian operations are dominated by international actors, and Localisation has not been achieved at the early stage of the crisis. Additionally, the article provides a profile of the humanitarian operation along with the context and background of the crisis; as such can be utilised by both academic and non-academic audiences.

Key Words: Rohingya, Bangladesh, Humanitarian operations, 4W data, Localisation

Introduction

The influx of Rohingya refugees from Myanmar to neighbouring Bangladesh has resulted in an unprecedented humanitarian crisis. The official estimate of managing agencies identified more than 855,000 refugees in need of humanitarian support (JRP 2020, page 42), of which more than 700,000 arrived after August 2017. The extent of the crisis called for a significant endeavour from the Government of Bangladesh (GoB) and humanitarian agencies for the provision and overall management of the humanitarian activities in Rohingya refugee camps.

The article originated from the need to provide an examination of the humanitarian operations to manage the crisis. As the involvement of actors is continuously evolving, the emphasis of the paper is to capture the evolution within the early stage of the crisis, i.e. 1-2 years. To date, research attention has been overwhelmingly focused on the issues related to repatriation and relocation. An early exception in this regard is a special issue on the Rohingya refugees in Bangladesh by the Humanitarian Exchange Magazine of the Overseas Development Institute (<https://odihpn.org/>) with contributions from Bowden (2018), Crisp (2018), Wencel et al. (2018) and Shevach et al. (2018). One of the first academic attempts to document the humanitarian response to the crisis was made by Lewis (2019), who covered the initial stages of operation. Cook and Foo (2019) also provided a detailed description of the organisational structures of the humanitarian responses for the crisis.

The present article is distinctive in nature with its emphasis on providing a quantitative analysis utilising 4W dashboard data to examine the position of agencies from the host country in the operations, humanitarian networks and leadership, which is referred to as, i.e. the Localisation of humanitarian operations. (see later sections for detailed explanation). It is understandable that, during the initial stages of the crisis, local institutions might have lacked experience compared to international humanitarian bodies; hence initial involvement of local agencies is expected to be low. However, with the progress of time, they are expected to gain experience resulting in increased involvement. Therefore, one may wonder if the involvement in a humanitarian operation as severe as the Rohingya refugee crisis allowed these agencies from Bangladesh to gradually assume the leadership roles. This consideration also has the basis in the United Nations (UN) declaration 2016 (UNHCR, 2016) and has been explored in previous works (Brabant and Patel, 2018; Lewis 2019 and Cook and Foo, 2019). Our paper analyses if any such transition has taken place within the first two years, i.e. the early stage of the crisis, using descriptive statistics and network analysis. Our analysis indicates that there is no clear evidence of Localisation within the stated period. We regard this empirical evidence with respect to the debates around Localisation as the most significant contribution of the research.

In addition, the paper aims to document the humanitarian operations during the early period of crisis which can serve as a benchmark for subsequent studies. This also has been accomplished through analysing 4W data. Naturally, the findings of the paper lead to other research questions, such as the identification of the hindrance of Localisation; however, such analysis has not been attempted as that will require further research. The significance of the research and how it can inform future researchers have been elaborated on later in the article.

The research is organised as follows. In the next section, we briefly discuss the history of the Rohingya refugee crisis and provide an overview of the present situation. This is followed by a review of the literature section. The section that follows provides an overview of humanitarian management for the crisis describing the roles of GoB and National and International Non-Governmental Organizations (NGOs). The methodology is discussed in the following sector, which proceeds to the section elaborating on the findings. Further sections discuss the significance of the findings.

History of the Rohingya refugee crisis

Though the 2017 exodus of Rohingya people from Myanmar has received attention and international media coverage, the Rohingyas have been seeking refuge in Bangladesh for the last five decades. The notable years when a major influx happened were 1978, 1992, 2012, 2016 and recently, 2017 (Bowden. 2018; Parnini 2013; Parnini et al. 2013, Anwary, 2020). The background and the history of persecution have been analysed in a number of works, e.g. Ibrahim (2016), Wade (2017), Parnini (2013), Parnini et al. (2013), Dussish (2018), Ullah and Chatteraj (2018), and Anwary (2020). However, the influx of 2017 surprised observers and Wencel et al. (2018) mentioned that at one point, daily arrivals per day were up to 12,500.

The Rohingya people are an ethnic minority of the Rakhine state of Myanmar. However, Myanmar does not recognise the Rohingya as one of the ethnic groups and citizens of the country. The refugee crisis is mainly the result of the denial of citizenship rights and consistent persecution of Rohingya in Myanmar. Among the research examined on the background and context of this crisis, Ibrahim (2016) is specifically notable for debunking ideas regarding the origin of Rohingya and establishing the existence of the Rohingya community before the British occupation of colonial Myanmar in the 18th century. Dussish (2018) provides a timeline of the historical contexts leading to the present-day crisis. As the timeline shows, in 1948 Burma (renamed Myanmar in 1989) received independence from British colonial rule. Violent conflicts broke out among various ethnic groups of Burma. This started the waves of internal displacement and exodus of various ethnic groups, which have continued to the present day. This period also observed the first incidence of non-recognition of the Rohingya as one of the ethnic groups, which are called the National Races of Myanmar, and they were also prevented from acquiring documents for citizenship (Ibrahim, 2016). This eventually paved the way for the denial of citizenship in the future. 1962 is another turning point as Burma came under military dictatorship and widespread persecution of the Rohingya community resulted in Rohingya diaspora to Saudi Arabia, Pakistan, United Arab Emirates, India, Thailand, Malaysia, and Indonesia (Dussish, 2018) in addition to Bangladesh (then East Pakistan). They were officially made stateless in 1982 with a Citizenship Act. Under the Act, those who belong to one of the so-called 'national races' are full citizens, particularly those who lived in Myanmar prior to 1823. Rohingya were not allowed to be in this category as they were not classified as one of the national races after the independence in 1948 or in other categories in the following years. The other way of achieving citizenship required providing 'conclusive evidence' of residence before

independence in 1948. The Rohingya did not have that 'conclusive evidence' caused by the non-issuance of citizenship documents to them after independence in 1948 (Ibrahim, 2016, pages 48-51).

In 1971 Bangladesh gained independence from Pakistan. 1978 saw the first major influx of Rohingya into Bangladesh. In February 1978, the Burmese military junta launched a large-scale operation named the 'Operation Dragon King' (Naga-Min), leading to the expulsion of over 200,000 to Bangladesh from Rakhine. Many of them returned to Myanmar in subsequent years for reasons well documented in a United Nations Refugee Agency (UNHCR) report (Lindquist, 1979). Another major influx took place in 1992 when again 250,000 Rohingya came to Bangladesh. Lastly, in 2012 riots broke out in Rakhine between Buddhists and Muslims, which resulted in internal displacements for both communities, and the Rohingya, as in the past, came to Bangladesh seeking refuge.

On August 25, 2017, following an alleged attack on a police check post by a militant Rohingya group, a major crackdown on communities took place, resulting in an unprecedented influx of Rohingya to Bangladesh. Unlike the previous influxes, which did not receive widespread attention (Gartel, 2013), the scale of the August 2017 crisis attracted international media attention. While Lindquist (1979) mentioned that the influx of 1978 is comparable to that of the Vietnamese boat people to Malaysia, the exodus of 2017 was of a far greater magnitude.

Table 1 shows that on the 24th September, 2017 new entrants since 25th August 2017 were 436,000, and by 31st December 2018 the number was 745,000. Table 1 shows 14,533 entries per day at the beginning of the crisis, which is significantly higher than the figure reported by Wencel et al. (2018).

{Insert Table 1 here}

The causes of this unprecedented influx are unknown because independent verifiers have not been allowed to visit Rakhine in those early days. Those who have watched this humanitarian crisis unfold in the media and from the ground have seen smoke rising in Myanmar that was visible from the Bangladesh side of the border. The satellite images also showed evidence of the burning/destruction of Rohingya villages in the Rakhine (Human Rights Watch, 2017).

Literature Review

There exists extensive literature on the Rohingya refugee crisis, which primarily focuses on various conditions of refugees themselves. The literature covers protection, coping mechanisms, abuse and persecution, roots of discrimination, statelessness, security and repatriation, and bilateral relations (Cheung, 2012; Ullah, 2011; Ullah and Chatteraj, 2018;

Kyaw; 2017, Rahman, 2010; Parnini, 2013; Parnini et al., 2013; Crabtree 2010). However, the Rohingya refugee camp management has not been addressed explicitly in pre-2017 literature. Researchers have examined the management of the supply chain in a humanitarian context (Abidi et al., 2014) and organising refugee camps (Chaux et al., 2018). Recent work documents the responses of Government and humanitarian bodies at the initial stages of the crisis (Lewis (2019). Cook and Foo (2019) also address the management of the crisis through desk research and interviews.

Our current paper addresses the issue of Localisation. The concept of Localisation within the humanitarian sector is mainly understood as building local capacity (Brabant and Patel, 2018). They specified seven dimensions of Localisation, of which our paper addresses capacity building and co-ordination mechanisms. Their paper identified that local and national NGOs in Bangladesh experienced attitudes of 'superiority' among international agencies. They identified that the use of 'English' instead of 'Bangla' in meetings created communication problems. Localisation may also imply involving refugees themselves in humanitarian assistance (Betts et al., 2020). Localisation has also been addressed in Lewis (2019) and Cook and Foo (2019). Lewis (2019) critically analysed the responses of the citizens and local civil society members of Bangladesh t after the influxes of 2017, and noted the growing difference between the responses of aid agencies and public authorities. The paper suggested a need to evaluate the performance of humanitarian actors against a changing and sometimes contradictory set of wider political and historical factors. Additional research identified that local NGOs were treated as sub-contractors to international agencies despite their extensive knowledge of disaster management in Bangladesh (Cook and Foo, 2019).

Our paper also falls within the broad topic of humanitarian management, which is defined as the inter-organisational systems created to deliver relief activities by coordinating resources and information among stakeholders. Studies on humanitarian management examine issues such as logistics using quantitative modelling and inter-organisational trust using qualitative approaches (Kabra and Ramesh, 2015). A significant amount of this research examines how collaboration mechanisms such as information sharing and knowledge co-creation support co-ordination between the entities involved in crisis response (Loch and Terwiesch, 2009). Lewis (2019) utilised the term 'response' instead of 'management' in analysing humanitarian activities in relation of the Rohingya refugee crisis. Beyond the very early stage, the activities of humanitarian actors are organised by centralised process hence, we regard the term management as more appropriate.

In humanitarian management, entity collaboration can occur via joint activities such as transport, delivery, purchasing, and evaluation. To improve this process, the UN created the cluster approach to improve co-ordination among humanitarian actors (United Nations, 2006). The structure aims to create groups of related organisations with a designated head or lead organisation to facilitate information exchange and co-ordination across clusters (Eikenberry et al., 2007). These leads could exist in areas that provide responses to gaps in service provision, such as telecommunications or logistics. Other areas include traditional relief sectors such as water nutrition or health. Finally, integrated areas that link multiple clusters such as co-ordination or security (Jahre and Jensen, 2010).

The network analysis conducted in this research addressed the issue of co-ordination. Previous research has identified the roles of the cluster lead in the UN approach as a facilitator who distributes information to all participants as quickly as possible, as a broker who shares information based on relevance and as a filter by ensuring the right information gets to the appropriate organisation. However, there has still been confusion among stakeholders about the role and function of cluster leads (Altay and Labonte, 2011).

Rohingya Refugee Crisis Management Coordination Mechanisms

This section aims to generate an understanding of the basic structure of humanitarian management of the Rohingya refugee crisis. The analysis of this section originated from desk research and the visit of the authors to the Refugee camps, including the surrounding areas. Conversations with the GoB officials and NGO workers also supported the generation of understanding of the camp management¹.

The humanitarian operations of the Rohingya refugee crisis have two components. One of them is the administration and policing, and the other one is humanitarian activities. The GoB is responsible for the administration and policing, while the humanitarian activities are conducted mainly by NGOs and are coordinated by an umbrella organisation called Inter Sector Coordination Group (ISCG). The supplementary Table S3 demonstrates that 172 institutions have participated in the humanitarian activities at various stages of the crisis till March 2019.

A. Government of Bangladesh

We construct Figures 1 and 2 from the information provided by the Joint Response Plan 2019 (JRP, 2019). The Rohingya refugee crisis management is conducted by the GoB at two levels. Level one is administered from the capital city Dhaka. The Ministries of the Government, together with the UN agencies in Dhaka form the National Task Force (NTF). The Ministries of Disaster Management and Relief is mandated by the NTF to oversee refugee crisis-related activities. Though the Rohingya refugee camps have significantly impacted the forest and environment of the surrounding area (Hassan et al., 2018) the Ministry of Environment and Forest is not prominently featured in the management. The agenda for rehabilitation and co-ordination was elaborated by the Government in a meeting on the 14th September, 2017 following the visit by the Prime Minister to the camps on the 12th September 2017 (Government of Bangladesh, 2017). The meeting specifically allocated 2000 acres of land

¹ The research of the paper belongs to a wider range of studies which also employs field visit, telephone interviews, face to face interviews and field surveys. The field visits took place during July-August, 2018 and 2019. Ethical approval has been obtained from the Social Sciences & Humanities Research Ethics Panel of Bournemouth University (Ethics ID 26485). Our current paper focuses on the results of the quantitative analysis.

in Kutupalong for building shelters for the Rohingya families. This area has been now extended to more than 6000 acres.

The second level is the operations from Cox's Bazar, the district where the Rohingya refugee camps are located. These activities are coordinated by the Office of Refugee, Relief and Repatriation (RRRC) headed by an Additional Secretary (<https://rrrc.portal.gov.bd/site/page/b6b4b598-2d29-447b-b6ce-b844ca4470d2/About-office>). The office was formed in 1992 following the establishment of 20 camps and a memorandum with the UNHCR and World Food Program (WFP).

Due to security concerns and fears of deterioration of law and order, the Armed Forces Division (AFD) is involved at both the national and regional levels. AFD is supported by the Police and Border Guards. Access to camps is regulated and permissions are issued by the RRRC. Additionally, the local district and sub-district level administrations (Upajila Nirbahi Officers) are involved in this operation. RRRC appoints Camp-in-Charge (CiC) who are all mid-ranked Government officers. The CiCs supported by the armed forces, police and border guards and sub-district level offices, oversee the administration of camps and relief operations.

{Insert Figure 1 here}

B. Humanitarian actors:

Figure 2 provides a snapshot of the humanitarian operations in relation to the Rohingya refugee crisis (JRP, 2019). As in the case of the management by the GoB, the humanitarian actors are also managed by as a two-level structure. The Strategic Executive Group in Dhaka is formed by the International Organization for Migration (IOM), UNHCR and representatives from other UN bodies. IOM is regarded as the lead agency (Bowen, 2018). The minutes from the 14th Sep. 2017 meeting, which initiated the formal management of the post August 2017 crisis, showed an increased role for IOM in the overall humanitarian management instead of UNHCR. An analysis of co-ordination between IOM and UNHCR is available in Moretti (2021).

In Cox's Bazar, the Inter Sector Coordination Group (ISCG) has been formed which works closely with the RRRC and the district level administration. Both National and International NGOs operate under the umbrella of ISCG.

{Insert Figure 2 here}

C. The camp, sectors and 4W data

The Refugee crisis-related activities covers 34 camps in a number of locations (i.e. Kutupalong, Chakmarkul, Unchiprang, Shamlapur, Leda, Ali Khali, Nayapara, Jadimura, Teknaf, Ukhia) in the early period of the crisis management. The majority of the Rohingya refugees live in the Kutupalong camp. The population statistics of the Kutupalong camp and some other large camps of the world are given in the supplementary Table S1. As can be seen, the 2017 influx suddenly made the Kutupalong camp the most populated camp of the world with more than 625 thousand refugees. Some refugees also live within the host communities (Source: Based on Situation Report, various dates)

Along with the refugees, affected host communities are included in the relief related operations. All the host community and refugee sites are highly vulnerable to rain, floods, cyclones, fire and landslides. The refugees are not allowed to participate in income-generating activities, except for a limited number of day-labourer jobs offered by NGOs. The Rohingya, therefore, are entirely dependent on the humanitarian assistance provided by NGOs. Humanitarian activities were classified in 10 areas within our period of study. The sector classifications and the need assessment made in the Joint Response Plan for 2019 are given in Table S2 (See supplementary materials).

The primary source of data regarding the activities of humanitarian organisations is the website managed by Humanitarian Response (<https://www.humanitarianresponse.info/en>) that works under the umbrella of the United Nations Office of Coordination of Humanitarian Affairs (UNOCHA). The data are inputted through a mechanism called 4W. The 4W tool provides an inventory of reporting activities on WHO does WHAT, WHERE, WHEN that fall under the ISCG framework. The earliest reporting date for the Rohingya refugee crisis is 22nd September, 2017.

Methodology of this paper

As stated earlier, 4W is an information management toolkit utilised by UNOCHA. The ISCG office in the Cox's Bazar obtains the 4W data reports from the sector coordinators, compiles and publishes to the dashboard. The data set is freely available from the dashboard (<https://www.humanitarianresponse.info/en/operations/bangladesh/isgc-4w-dashboard>). We recognise that the data set utilised in the study is secondary in nature, and there are limitations into the nature of conclusions that can be drawn from the analysis. However, 4W is used worldwide to record humanitarian activities, and therefore we regard it as a reliable record of activities of humanitarian management.

The 4W data are available by activities within sectors. Some examples of activities are '25 KG Rice', 'Micronutrient powder (MNP) supplementation', 'Collecting, verifying and analysing information and identify protection risks' and 'Distribution of hygiene kits'. The names of program partners, implementing partners, donors, sectors and locations have been identified for each listed activity. Given the reporting of activities, it is possible to identify the humanitarian actors involved in projects at the refugee camps. We, therefore, utilised the 4W data set to identify the evolution of humanitarian actors within the research period.

Working with the 4W data involves a significant amount of data cleaning. Notably, for some activities, a number of missing values are observed. For example, the name of the program partner has been included, however, the names of the implementing partner and donor are not. In these cases, it is assumed that the program partner is also the implementing partner and donor. Similar problems are encountered in extracting the information about activities. We assume the sub-sector classification stated in the spreadsheet as the activity name, if the activity is not listed. Additionally, for some activities, names of donors have been jointly mentioned. For example, if the activity '25 KG Rice' has WFP and UNHCR then we assume that this activity has two donors. Extra care has been taken to identify the institutions that are known by different names.

The cleaned 4W data is first used to provide a descriptive analysis of the evolution of the leadership roles in camp management. MS Excel has been used for this analysis. Data from six reporting dates have been first compared. Later, the data were segregated in 5 categories, and the changes across the last two dates have been compared across categories. The analysis aims to identify evidence of Localisation in the Rohingya refugee camp management. We also provide a detailed list of actors involved in the operation.

After the descriptive analysis, network analysis was conducted to identify the lead organisations in the overall humanitarian network, following an approach previously used by international agencies to examine local capacity (Kapucu, 2011). The process is explained using Figure 3 and 4.

{Insert Figure 3 here}

Within each stage of the camp crisis response, Organisation/Activity data are obtained from 4W reports and converted into two-mode networks (Organization-Activity) using the UCINET software package. These two-mode networks were then converted into one mode networks representing organisation to organisation links. This approach has been employed in previous disaster management research to identify the nature of relationships among response organisations (Hu et al., 2014). UCINET was used to perform network calculations using the one-mode network data.

{Insert Figure 4 here}

Findings

A. The list of NGOs and characteristics:

The 4W spreadsheets provide lists of the humanitarian actors and the nature of their involvement in the Rohingya refugee camps. From the spreadsheets, the research identifies the names of actors and their primary characteristics. The Table 2 shows the classification of actors

by origin, and religion and 5 types of organisational involvement (the full list is available in the supplementary Table S3). The 5 types are International NGOs (INGOs), National NGOs (NNGOs), UN, GoB and others. The categories have been defined as follows:

- a. GoB = The institution belongs to the Government of Bangladesh.
- b. INGO = International NGO. An NGO is international if it originated outside of Bangladesh.
- c. NNGO = National NGO. An NGO is national if it originated in Bangladesh.
- d. UN = United Nations.
- e. Others = Other bodies such as another country.

It should be noted that some organisations classified as NNGOs may have international operations (e.g. BRAC). Similarly, INGOs are those who originated abroad, though they may have a permanent presence in Bangladesh. The UN classification implies belonging to the UN family. We have a classification as others for 2 organisations that do not fit into any other classifications. A total of 172 organisations have been identified who have worked at camps at various stages. Of these, 91 are INGOs and 66 are NNGOs. We have included the names of all the bodies available via the 4W data set. It is possible that some other organisations may also have involvement, however, not included in the 4W report. Names of organisations not available via the 4W report have not been included in our analysis. Furthermore, the differentiation between INGOs and NNGOs is not always clear cut and therefore, some classifications are likely to be open to alternative interpretations.

Table 2 also categorises the entities by religion. This information on the religious orientation has been obtained from the webpages of the institutions. We found that many organisations are not religion-based entities, and within the religion-based entities a good mix can be observed. Out of 172 bodies, 27 can be categorised as religion-based, i.e. less than 20%, and this implies that religion does not play a prominent role in humanitarian operations.

{Insert Table 2 here}

To our surprise, we noted that there are a higher number of Christian NGOs than Muslim NGOs, though Rohingya are predominantly Muslims. It is also interesting to see that the ratio of religious NGOs to NNGO is relatively low. Lewis (2019) noted that some 'faith-based' NGOs were accused of serving unwelcoming political interest at the beginning of the crisis. This may have deterred the entry of Muslim NGOs. The religious entities may also have no specific significance in humanitarian activities. Palmer (2011) carried out research on Islamic Relief's programs for Rohingya refugees and found no clear evidence of added value of employing Muslim aid agencies.

B. Evolution of humanitarian operations in 4W Data

The 4W spreadsheets provide a good understanding of the evolution of humanitarian actors. The names of the program partners, implementing partners, donors, sectors and locations have been identified for each listed activity. The Tables 3 has been constructed using that information and sector-wise disaggregation is given in supplementary Tables S4 to S13. In the tables, the number of program partners, implementing partners, donors, sectors, activities, locations and entries are reported. Note that the number of activities and locations are not comparable across various reporting dates because of changes in the reporting procedure.

{Insert Table 3 here}

The Table 3 shows the evolution of the involvement of organisations over 6 report dates from 22nd Sep., 2017 to 5th March, 2019. The number of program partners reported in 22nd September was only 22, which increase to 98 in 5th March 2019. A similar rate of increase can be observed for the implementing partners which rose from 34 to 118. However, the number of donors has increased at a much faster rate, from 37 to 219. The table indicates that at the beginning, the same organisation acted as both donor and implementing partner for the same activity. This apparently has changed, though not a great extent in the later period. The statistics for locations and activities are not comparable as the reports have used different methods of classifications at different dates. However significant change can be observed for the number of entries for activities, from 913 to 13372 (an increase of approximately 14.6 times). The number of implementing partners has multiplied by 3.5 over the same period. This shows an expansion of activities for a small number of institutions.

To facilitate a comparison of the expansion of activities, we also look at them by sector (Tables S3 to S13). Note that Protection and Site Management have not been reported as separate sectors in the initial period. As we have observed in Table 3, there was an expansion in the number of entries compared to the numbers of partners and donors. For the Child Protection Sector, the number of program partners, implementing partners and donors have increased respectively from 5, 7 and 7 to 11, 15 and 20. The entries has increase from 128 to 1184. It shows that the sector has experienced a substantial expansion of activities compared to the number of actors involved in the sector. The Education sector similarly has observed an expansion of entries from 136 to 4195. The number of program partners, implementing partners and donors has increased respectively to 17, 23 and 63. Hence the sector has experienced a higher rate of increase of entries compared to the increase of actors. For Food sector only fivefold increase on the number of entries can be observed which is from 43 to 235. Similarly, the number of actors remained smaller. The Gender Based Violence sector also observes a small increase in the number of program partners, implementing partners and donor. The number of entries has gone up from 101 to 988.

The Health sector interestingly is showing a declined in the number of entries. However, the sector has observed about threefold increase in the number of program partners,

implementing partners and donors which is higher than some other sectors. The NFI/Shelter sector also shows about two to fourfold increase in the number of program partners, implementing partners and donors. The sector however experienced a very high increase in the number of entries, i.e. from 35 to 1006. Interestingly, the sector reported 2195 and 4013 entries in previous reporting date, which is far higher than the last reported one. The Nutrition sector shows about two to fourfold increase in the number of actors, The sector started with small number of actors which was 4, 3 and 3 respectively for program partners, implementing partners and donors. The sector experienced less than a twofold increase in the number of entries from 294 to 507. The Protection sector also started with a small number of actors and still operating with a small number which is respectively 4, 8 and 5 for program partners, implementing partners and donors. It experienced a fivefold increase in the number of entries.

The Site Management sector was first reported on the 10th November, 2017. In the last reporting date on 5th March 2019, the sector only had 2 program partners, compared to 10 on the first reporting date. Similarly, the number of donors has also decreased to 2, though the number implementing partners has gone up to 46. The number of entries has gone up from 40 to 539. The Wash sector experienced the largest expansion of entries from 16 to 4251. The sector also has experienced a higher rate of increase in the number of program partners, implementing partners and donors. The number of donors has increase more than tenfold from 9 to 104.

The data hence shows that except for the Health sector, all sectors have experienced an increase in the number of entries. The rate of expansion of activities is higher than the rate of increase of the number of program partners, implementing partners and donors. The result therefore shows concentration of activities in small number of actors.

A further analysis has been conducted with the aim to compare the involvement of INGOs and NNGOs across various reporting dates. We specifically looked at two reporting dates, i.e. 22th September 2017 and 5th March 2019. For these two reporting dates, program and implementing partners have been segregated according to the categories identified in Table 2. The results have been presented in Figures 5 and supplementary Figures S1 to S10.

In Figure 5, all sectors are combined. In supplementary figures the data has been segregated sector-wise. Figure 5 shows that the number and ratio (as a proportion of the total) of both national and international NGOs have gone up. For program partnership, INGOs have gone up from 13 to 61 and NNGOs have gone up from 3 to 27. Therefore the participation of INGOs has increased from 59% to 62%. For NNGOs it shows an increase from 14% to 28%. In the case of implementation, the percentage of INGOs and NNGOs have gone up respectively from 35% to 41% and from 38% to 47%. Interestingly the involvement of the UN has gone down as a percentage of the organisations involved. This implies that at the beginning, the international actors were more involved than national actors in humanitarian activities and UN played a greater role. Even the GoB performed a leading role in implementation at the beginning. However, the NNGOs have caught up over time, though the INGOs are still leading in activities and are dominant at the end of research period in consideration.

{Insert Figure 5 here}

The relatively higher rate of increase in the number of NNGOs is not a general pattern and variations across sectors is possible as can be seen in Figures S1 to S10. In case of the Child protection Sector NNGOs have demonstrated a greater rate of increase from 0 to 3 for program partners. However for implementation, the proportion of NNGOs has decreased and the involvement of both INGOs and UN bodies has shown a greater rate of increase. For the Education sector, a greater role of NNGOs is clearly demonstrated. The sector has experienced a high rate of new entrants i.e. from 3 to 18 for program partners and from 7 to 21 for implementing partners. This increase is due to the increase in the number of both INGOs and NNGOs, where INGOs take the lead by 10 new entries for program partnership. For implementation, the NNGOs has higher involvement with the increase from 3 to 14.

The Food Security sector also has seen an increase in the number of organisations. It is however due to the increased involvement of INGOs rather than the NNGOs. For program partnership number of NNGOs has drop from 2 to 0. INGOs has increased from 5 to 8. For implementing partnership, the involvement of INGOs also shows a greater rate of increase. The Gender Based Violence sector experienced the increase of both INGOs and NNGOs, though the rate of increase is higher for NNGOs. Initially only the INGOs and UN bodies were involved as program partners. However, the report from 5th March shows 2 NNGOs as program partners. The number of NNGOs also have gone up substantially as implementing partners. The Health sector shows a greater involvement of INGOs. The number of both program partners and implementing partners has gone up due to the entry of INGOs. For program partners, the INGOs has gone up from 4 to 20. For implementing partners, the number of INGOs has gone up from 4 to 18. Though the number of NNGOs has also gone up, the sector clearly shows a greater involvement of INGOs. The NFI/Shelter sector has also seen an increase in both program and implementing partners. The involvement of both INGOs and NNGOs has gone up almost at the same proportion. This sector is also dominated by INGOs with 16 in operation as program partners, where the number of NNGOs is 10.

The Nutrition sector shows increased participation of both INGOs and NNGOs as program and implementing partners, though this sector is clearly dominated by INGOs in program partnership. For program partnerships, the number of INGOs has gone up from 1 to 6. For implementing partnerships, this number has increased from 2 to 6. This sector has no NNGO acting as a program partner. For the Protection sector, the number of organisations involved in this sector is very low. For program partners, the total number of NGOs is only 2 (excluding UN Bodies). For the implementing partners, there are 8 organisations out of which 5 are NNGOs. The Site Management sector demonstrates opposite trends in the numbers of program and implementing partners. The number of program partners has gone down from 10 to 2, however the number of implementing partners has gone up from 10 to 46. We observe increased involvement of both INGOs and NNGOs in implementation. For program partnership, only UN bodies are involved. In the Wash sector the number has gone up for both program and implementing partners. The total number of program partners has gone up from 9 to 56 in which the involvement of the INGOs has gone up from 4 to 37. It shows the program partnership is dominated by INGOs. In the case of implementation, the NNGOs have a dominant role, with the number increasing from 4 to 30 within the two reporting dates.

To summarise, we observe a mixed picture of the involvement of INGOs and NNGOs in the humanitarian activities at the early stage. In some sectors, we do see increased involvement of NNGOs however, in other sectors the involvement of INGOs has gone up. Returning to the question of Localisation, there is no clear overall evidence of increased involvement of NNGOs in the activities related to the Rohingya refugee crisis management. Though the issue of Localisation can be addressed in different ways, such as by looking at the proportion of activities managed by different types of NGOs, employment, coverage of areas, diversification of activities and other issues, the analysis of the paper shows that Localisation of humanitarian operations has not been achieved in the context to the Rohingya refugee crisis within the research period in consideration.

C. Evaluation of networks

In this section, the question of Localisation is further analysed using network analysis. Following the methodology described previously, the core-periphery structure of networks in the Rohingya crisis management has been examined to identify the composition of lead actors. The results have been presented in Tables S14 and S15. The analysis indicates a high correlation with Everett and Borgatti's (1999) metric, suggesting that there was a dense core-periphery network. The network core changes from an initial pre-existing Dyad of two members at the initial stage of the crisis to an integrated core with multiple firms at the last stage. As the crisis persisted, the network evolved to incorporate an increase in the scale of activities and types of organisations. The lead authority exchanged across successive stages and resulted in a core cluster of multiple organisations or an integrated core structure. Researchers have theorised that crisis networks will demonstrate a change in the size and composition in the core group (Nowell et al., 2018). This was empirically validated in this study as the core group grew in both size and complexity, adapting authority to a changing context. At each stage of the crisis, the core actors changed to reflect the priorities over time.

At the final stage, the network core consisted of a combination of government organisations and international organisations. Unlike many other emergency scenarios, there was a pre-existing stable network governed by IOM and Médecins Sans Frontières (MSF). In the network at the subsequent convergence stage, which occurred after the initial influx of refugees, new core organisations emerged comprised of national and international NGOs. These lead organisations were able to attract resources and new members into the network. Subsequent reporting of the 4W data depicts exchanges in authority from INGOs to an integrated INGO-NNGO team without disruption to the network. While the membership of the core and periphery changed over time, the overall network structure was maintained. This structure has been hypothesised as having the capability to adapt and absorb new members without disruption which has been validated empirically in this study. The findings suggest that an exchange dynamic exists where emergency response networks adapt core members to align the governance structure to the scenario requirements. The analysis is consistent with the finding of the descriptive statistics. Though the entry of NGOs can be observed in the

periphery, the leadership role of the core seems to be concentrated on the government actors and INGOs.

Further discussion and significance of the findings

The distinctive nature of the analysis of the preceding sections is its quantitative underpinning which used the 4W data used to evaluate the extent of Localisation of humanitarian operations in Rohingya refugee camps. The extent of Localisation is often a much-discussed topic among the people involved in the management of the crisis (Dhaka Tribune, 2020; Business Standard, 2020 and 2021). Our study aims to provide a reliable statistical analysis of the context of such a discussion. Methodologically, therefore, the article makes a significant contribution to the research on the management of the Rohingya refugee crisis. It also shows clearly that the transition to Localisation has not taken place within the subject period of time (1-2 years).

In this context, the importance of Localisation needs to be further emphasised. Refugee crises are a growing challenge and in many countries resulting in political tensions. Greater involvement of local institutions may provide a voice for the host communities, thereby reducing tensions and allowing for peaceful cohabitation for both refugees and hosts. The importance of the involvement of local stakeholders in humanitarian management cannot be ignored.

In addition, involving local institutions has the potential to benefit the host countries in the form of human capital development. Providing humanitarian services is a specialist skill that requires training and experience. International humanitarian bodies have acquired these capabilities through decades-long exposure to various crises at an international level. Increased involvement of local institutions can help to transfer such skills of managing an international crisis to local institutions. This view does not imply that the local institutions are not capable in taking the leading roles. We imply that, though they are capable, management of an international crisis requires a different set of skills which local institutions may not immediately possess, that needs some degree of actual exposure to leadership.

The article's findings suggest that as Localisation was not achieved within the period of study, the voice of dissent reported previously by various outlets has some strong basis. Additionally, the benefit of skill transfer in managing an international crisis has not been also realised as the NNGOs lag behind the INGOs in participation.

The analysis also provides a sector-level indication of Localisation. The involvement of NNGOs has increased over time, but most sectors also observed a concurrent increase of the number of INGOs. Specifically, the involvement of NNGOs as program partners has relatively a low rate of increase compared to that of INGOs. On the other hand, the role of NNGOs as implementing partners has increased at a much greater rate. It shows that the leadership roles of activities are dominated by INGOs where the NNGOs are increasingly getting involved at implementation. One may therefore want to investigate the reasons for such sector level differences of the involvement of NNGOs and INGOs at program and implementing levels.

The research therefore leads to additional questions, which we do not attempt to answer as the paper is already dense with the analysis of tables and figures. However, it directs to further research capable of providing policy level guidelines. The findings also call for further investigation on Localisation at the medium term (e.g 2-5 years), which also requires a separate study.

The paper did not aim to develop a framework or theoretical understanding of Localisation² though such a model will be very useful at the policy level. Within the paper, we relied on data analysis to provide us the understanding of Localisation. This analysis provides the basis to build up a theoretical framework, which coupled with further empirical investigation, will be useful for generating the understanding of factors preventing the Localisation and taking necessary measures. It should be noted that some previous papers already have identified some reasons which we discussed in the literature review (Brabant and Patel, 2018; Lewis, 2019; Cook and Foo, 2019). They stated that the local NGOs are not considered as equals, the existence of the attitude of supremacy and the use of English in meetings. The wider political and historical factors to be also considered in understanding the performance of humanitarian actors.

Additionally, our article profiles humanitarian operations along with the context and history of the crisis, in a manner that can be utilised by general people, media and policy along with the future researchers. The paper therefore makes contribution with the view to inform the academic and non-academic audiences for positive changes to the management of the Rohingya refugee crisis.

Conclusion

The Rohingya refugee crisis is one of the largest humanitarian crisis to unfold in the last 5 years. Though the crisis itself has received international media coverage and the attention of academics, the involvement of humanitarian agencies in crisis management is understudied, though some recent papers have attempted to address this gap. Our current paper provided a quantitative analysis of the involvement of humanitarian actors in relation to the management of activities. The article addressed the early period of operation (1-2 years) and provided a profile of organisations. The question of Localisation has been addressed by examining the evolution of the number of local humanitarian bodies in the 4W data.

The analysis of data suggests that the humanitarian operations in relation to the Rohingya refugee crisis at the early period did not achieve Localisation as local organisations were still to assume leadership roles in the management of humanitarian activities. Our analysis supports what has been identified in previous research papers and is often reported in media.

² It has been stated by several referees. The authors are thankful to them for providing this direction for future research.

This article also provided a comprehensive review of the history, context and profiles of humanitarian actors in relation to the Rohingya refugee crisis and as such, provides a point of departure for future research. The names of institutions and the evolution of humanitarian activities have been documented. We expect that future research and related practices will find our endeavour useful in the management and understanding of humanitarian crises.

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Tables

Table 1: Entry of Rohingya refugees Aug. 2017-Dec. 2018

Date	Population
24 th September, 2017	436,000
15 th October, 2017	537,000
26 th November, 2017	624,000
30 th July, 2018	706,000
12 th Nov. 2018	733,415
31 st Dec. 2018	745,000

Source: Compiled from Situation reports (Various dates)

Table 2: Humanitarian actors by type and religion

Type	No	Religious orientation	Religion type
INGOs	91	22	Christian = 13, Muslim =9
NNGOs	66	5	Christian=1, Muslim=2, Hindu=1, Sikhs=1
UN	8	0	-
GoB	5	0	-
Others/Consortium	2	0	-
Total	172	27	Christian =14, Muslim=11, Hindu=1, Sikhs=1

Table 3: All sectors

All sectors	22/09/2017	06/10/2017	10/11/2017	29/12/2017	18/06/2018	05/03/2019
Program Partners	22	37	53	65	86	98
Implementing partner	34	56	66	80	92	118
Donors	37	67	95	116	158	219
Sectors	8	9	10	10	10	10
Activities	147	195	207	310	268	220
Locations	60	109	97	88	88	109
No. of entries	913	2171	3732	6096	9864	13372

Figures

Figure 1: Management structure of the Government of Bangladesh

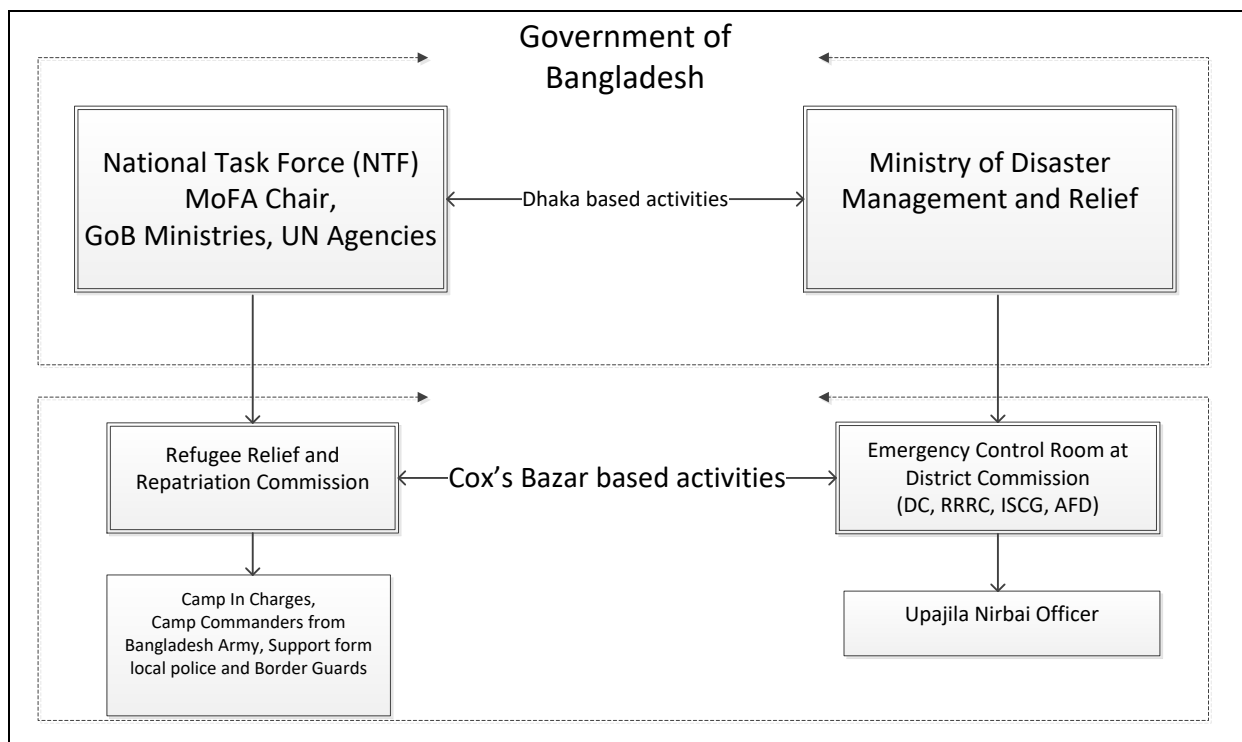
Figure 2: Management structure of the humanitarian actors

Figure 3: Process of the network analysis

Figure 4: Conversion to one mode data

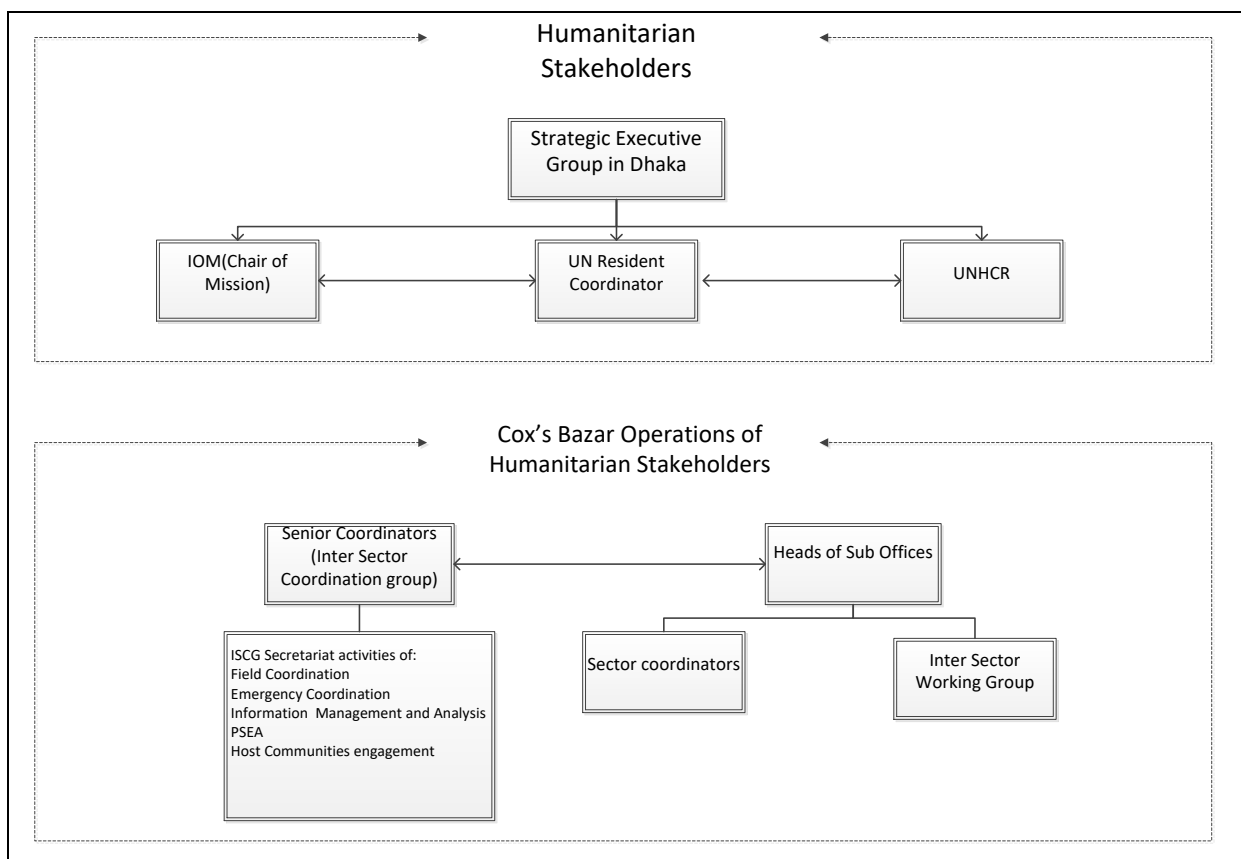
Figure 5: Evolution of partners (All Sectors)

Figure 1: Management structure of the Government of Bangladesh



Source: JRP 2019, Reconstructed by Authors.

Figure 2: Management structure of the humanitarian actors



Source: JRP 2019, reconstructed by Authors.

Figure 3: Process of the network analysis

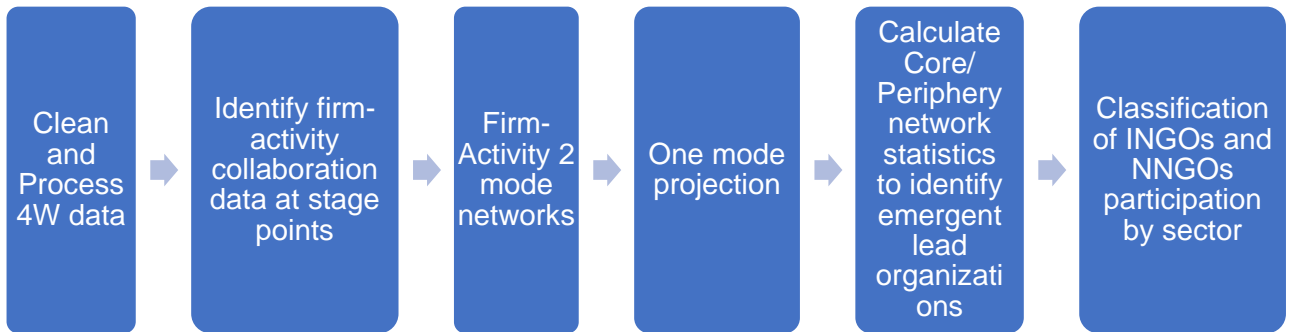


Figure 4: Conversion to one mode data

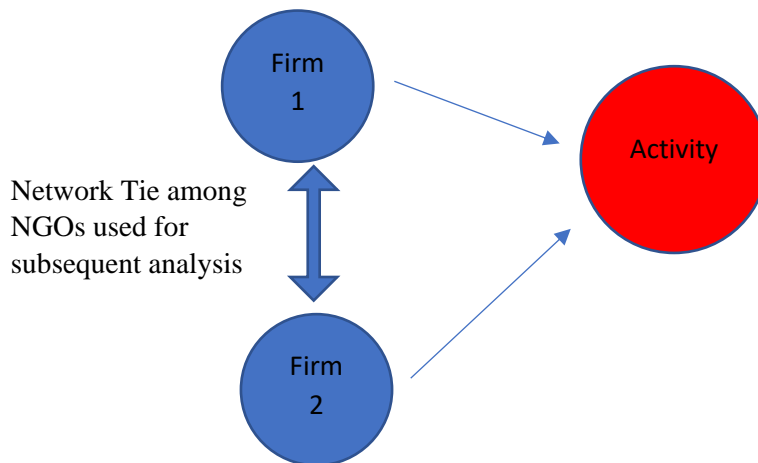


Figure 5: All Sectors

