Joined-up Government Approach for Coordination in Disaster Management in Bangladesh: Challenges of Accountability and Effectiveness

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Abstract

This research based on a case study and review of secondary information is to explore why and how the Joined-up government approach in disaster management is an effective instrument in maintaining proper coordination for managing consequences of frequently occurring natural disaster like flood and cyclone in Bangladesh. Disaster management is such a multidimensional issue that really necessitates Joined-up government approach where coordination takes place among all the government departments, agencies and other concerned organizations that otherwise would be unmanageable. Bangladesh is extremely vulnerable to natural disasters due to its geo-climatic condition and high population density. Joined-up government approach in disaster management is a paradigm shift from a conventional postdisaster response and relief programmes to a more comprehensive emergency response and recovery management at all levels for minimizing disaster risks. But the issue of accountability and effectiveness of the approach requires critical analysis. Strong leadership at managerial and ministerial levels and developing new skills and organizational cultures in disaster management system would help to overcome the challenges of accountability and effectiveness of joined-up government approach in Bangladesh.

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1.0 Introduction

Bangladesh is a highly disaster prone country that suffers a lot almost every year from various natural disasters due to its geoclimatic condition, multiplicity of rivers and high population density The effect of climate change adds a new dimension to community risk and vulnerability. Although the magnitude of these changes may appear to be small, they could substantially increase the frequency and intensity of existing climatic events like floods and cyclones (GOB, 2010). Floods and cyclones are the major natural disasters that have a tremendous impact on the overall economy of the country causing significant damages to life and property almost every year. Frequently occurring natural disasters pose a potential threat to sustainable development of the country. The existing mechanism of disaster management in accordance with the concept of Joined-up government (JUG) approach that has been better able to minimize the losses of lives and properties with the strategy of prevention / mitigation, preparedness, response and recovery to overcome various disasters. As disaster management is a cross-cutting issue, coordination and collaboration among the various departments, organizations and agencies and essential. For disaster management, the Bangladesh government has a set of well-developed institutional mechanisms to maintain proper coordination amongst the concerned ministries, organizations and line agencies (GOB, 2008) with a view to establishing a joined-up government approach since 1997. Working with a large number of organizations in disaster management, there are challenges of coordination, accountability and effectiveness of the approach. This research is to explore why and how Joined-up government approach in disaster management for flood and cyclone is an effective instrument for disaster risk reduction and emergency response in Bangladesh. Although there are challenges of accountability and effectiveness for this strategy, this paper contends that Joined-up government approach in disaster management has better impact for improvement of coordination for minimizing risks with maximizing emergency response for preparedness and recovery from frequently occurring floods and cyclones in Bangladesh.

2.0 Research Objectives

This research is undertaken with the following aims and objectives:

The research is to investigate why Joined-up government is more desirable approach in disaster management with the changing context of public management to manage the hazards and long-term consequences of two frequently occurring natural disasters like flood and cyclone in Bangladesh

The work explores how the opportunities of Joined-up government approach in accordance with the theories and debates are addressed for proper coordination and the challenges of accountability and effectiveness to minimize the risks and losses of natural disaster

As Bangladesh is one of the most disaster-prone countries in the world, disaster management is a very critical issue for any government in power. Coordination, accountability and effectiveness are important factors for any public management process for which Bangladesh is striving for a long time. If Joined-up government approach is to be an effective instrument in this regard, this research is to help policy makers, development agency staff, private sector partners and other key practitioners in fonnulating and implementing effective and sustainable disaster management strategies for Bangladesh.

3.0 Research Plan and Methodology

The important aspect of the research is to investigate why and how joined-up government approach is an appropriate and effective instrument in disaster management in Bangladesh. As there are so many government and non-government departments and organizations are involved in the process, research is focused on how the challenges of accountability and effectiveness are to be addressed for future crisis management. The areas of joined-up government in this regard has been identified where there are more

scopes of coordination with a view to addressing emergency response and disaster risk reduction.

Methodology

Qualitative case study is used to carry out this research. Based on the analysis of theoretical debates and information as well as review of secondary information, a framework of Joined-up government is to be suggested where the existing mechanism of disaster management has been analysed as a case study. The loss of lives and properties, risks and hazards due to flood and cyclone before the joined-up government approach in disaster management has been taken into consideration to evaluate the approach of JUG. How the challenges of coordination and accountability are addressed through joined-up government approach to manage the consequences of flood and cyclone for sustainable development of Bangladesh. The potentials and weaknesses of joined-up government approach in disaster management have also be identified on the basis of the findings of the research.

Review of secondary information include official documents and data on disaster management from the government departments, NGOs and other organizations, donor agencies, research reports, studies, related books, journal articles, newspaper reports and websites. Standing Orders on Disaster, National Plan for Disaster Management, Guidelines for Government at all Levels (Best Practice Models) are some important government documents. There are various reports on flood and cyclone, where losses of lives and properties in those disaster; coordination mechanism and roles and responsibilities of different organizations are explained. All these documents and information have been consulted for analysis and evaluation of the research work. The experience of joined up government in disaster management for other countries are also considered.

4.0 Theoretical issues and debates on Joined-up government

For the concept of joined up government, a number of terms such as horizontal, holistic or integrated government and whole of

government are used to refer to the similar approach. The Management Advisory Committee (MAC), a forum of secretaries and agency heads of the Australian Government, provided the following definition for the Australian Public Service in 2004 (MAC, 2004, p.4): Whole of government denotes public service agencies working across portfolio boundaries to achieve a shared goal and an integrated government response to particular issues. Approaches can be formal and informal. They can focus on policy development, program management and service delivery.

According to Ling (2002), joined-up government is an umbrella term describing various ways of aligning officially different organizations for purpose of the government to co-ordinate the work of different agencies, all governments attempt to 'join-up'. JUG has played a significant role in context of public sector reforms since the mid-1990s and this view has remained an important part of the idea behind public sector reform (Ling 2002; Pollitt 2003; Perri 6 2004; Christensen and Laegreid 2007; Davies 2009). 'Joined up government' (JUG) is a slogan that originated in the United Kingdom (Perry 6, 2004). The concept of joined up government was introduced by the Blair Government in 1997 to improve the government's response to 'wicked' problems (State Services Commission, 2007) but has been widely used across the world like USA, Canada, Australia, New Zealand and some other countries to describe the integration of services, processes, systems, data and applications that are essential to realize a seamless, citizen-centred government (Maio, 2004). In joined-up government, greater efforts are made with a view to improving horizontal coordination and integration between departments and agencies within government (Perri 6, 2004). The important characteristic is that this approach differs notably from the traditional 'silo' approach of departments / ministries (Australian Public Service Commission, 2004). According to Hyde (2008) Joined-up' government approach has evolved over the past two decades from the simple 'one-stop-shop' concept to much more formal organisational structures mandated at the highest levels.

In the public sector, there are some complex issues that are cross cutting in nature and the management of these issues do not remain within departmental boundaries, portfolios or tiers of government. Such complex and multidimensional issues are not able to be addressed through the actions of a single government department or in some cases, a single tier of government. Addressing these cross cutting issues requires depending on action and collaboration that goes beyond organizational jurisdictions and portfolio boundaries (State Services Commission, 2007).

In practice, achieving joined up government can be difficult. JUG needs cooperative effort and cannot easily be imposed from the top down (Pollitt, 2003). It depends on having organisational cultures, skills, capabilities, and management systems and structures that support collaborative and integrated ways of working. Across all joined up government efforts, there are a number of critical factors for success: i) working towards shared goals that are clearly defined and mutually agreed; ii) evaluating and measuring progress towards the objectives; iii) having appropriate and adequate resources available; iv) having strong leadership, directing the team and initiative towards the goal; v) working well together with a sense of shared responsibility (Ling, 2002; National Audit Office, 2001; Parker & O'Leary, 2006). Ling (2002) categorizes the variety of joined up working practices into four dimensions: types of organisation, accountabilities and incentives, ways of delivering services and ways of working across organisations. Capacity building is now seen as a key to successful 'joined-up' government initiatives that lead to sustainable action (Bowen et al., 2001). According to Hyde (2008), there are five main domains in which community agencies and organizations must have capacity if they are to engage in successful partnership: Organisational Development; Workforce Development; Resource Allocation; Leadership; and Partnership.

5.0 Natural Disaster: Flood and Cyclone in Bangladesh

The frequent incidence of natural disasters like floods and cyclones has been realities of life in Bangladesh (Matthews, 2009) with

162.2 million populations (UNFPA, 2009). The number of death, economic loss, and infrastructure damage associated with different disasters is very significant. Statistics show that due to disasters between 1970 and 2004, around 0.7 million lives were lost, and the economic loss was US\$ 5.5 billion (Chowdhury and Rahman, 2001; Haque, 2003; CRED, 2004).

Flood

Flood is a regular phenomenon that affects almost 20% of the country, increasing up to 68% in extreme years. Generally four types of flooding occur in Bangladesh. *Flash* floods caused by overflowing of hilly rivers in eastern and northern Bangladesh; vain *floods* caused by drainage congestion and heavy rains; monsoon *floods* caused by major rivers usually in the monsoon (during June-September); Coastal floods caused by storm surges (GOB, 2010). The floods of 1987, 1988, 1998 and 2004 were the most devastating in country's history in terms of its extent, infrastructure damage, economic loss and threat to lives of people (Hossain, 2004).

Cyclone

Tropical cyclones from the Bay of Bengal accompanied by storm surges are one of the major disasters in Bangladesh. The country is one of the worst sufferers of all cyclonic casualties in the world (GOB, 2010). In 1970, more than 300,000 people were killed by cyclone that caused over \$2.5 billion of property damage (UNDP, 2005). In 1991, Cyclone Gorky killed more than 138,000 people and left some 10 million homeless causing an economic loss of US\$ 1.78 billion. In recent time, in 2007, 3,363 people were killed and 6 million people were displaced or made homeless by a catastrophic cyclone 'SIDR' (ADRC, 2007).

6.0 Disaster Management in Bangladesh: a strategy of Joined-up government approach

Disaster Management is multi-sectoral in nature, which requires involvement and close cooperation of many organizations. For coordination, it is essential to bring together all agencies and resources to ensure an effective disaster response. Therefore joinedup government approach has been initiated since 1997 to address the multifaceted and complex issue of natural disaster for which Bangladesh is fighting for a long time. The joined-up approach operates vertically within agencies as a function of the authority to command, and horizontally across agencies as a function of the authority to control (GOB, 2010). Under the Ministry of Food and Disaster Management (MFDM), Disaster Management Bureau (DMB) is the professional unit at national level to perform specialist support functions working in close collaboration with District and Upazila (sub-district) level authorities to overview and co-ordinate all activities related to disaster management from national down to the grass-root level (GOB, 2008). Cooperation from Armed Forces Division is also asked for their involvement depending on the severity of the disaster.

There are three high-profile bodies at the national level for multisectoral coordination: headed by the Prime Minister, the National Disaster Management Council (NDMC) is the highest body; the Inter-Ministerial Disaster Management Coordination Committee (IMDMCC), led by the Minister for Disaster Management and Relief; and the National Disaster Management Advisory Committee (NDMAC), headed by a specialist who is designated by the Prime Minister. Besides, there is the Parliamentary Standing Committee on Disaster Management, to monitor national level policies and programs (Figure 1 in Appendix). The responsibilities of these bodies are to provide policy and management guidance as well as coordination of activities related particularly to relief and rehabilitation (Khan and Rahman, 2007).

At the field level (as shown in Fig. 2 in Appendix), district administration is the focal point of disaster management

organizational structures covering all 64 districts of Bangladesh. The District Disaster Management Committee (DDMC) is headed by the Deputy Commissioner, who is the administrative head of the district. The members of the committee include representatives from all the government departments at the district level and representatives from Non-government Organizations (NGOs), Bangladesh Red Crescent Society and Cyclone Preparedness Programmes and other concerned organizations. Under the district, there are the subdistricts / Upazila, union and village tiers of disaster management committees that are similar to district level. Representatives from almost all concerned groups in society are included in all these local level committees (Khan and Rahman, 2007).

For the mechanisms to be operative, a guidebook named 'Standing Orders on Disaster' (SOD) has been functional as a basic tool since 1997. The idea of joined-up government approach has actually been initiated with the formulation and introduction of these Standing Orders on Disaster forming the basis of joined-up government concept in disaster management. The Standing Orders outline the activities of each Ministry, major agencies / Departments so as to handle emergency situations efficiently. The initial operational direction and co-ordination for any disaster situation come from the highest level of institutional arrangement .i.e. NDMC through second highest authority IMDMCC for overall disaster management in the country. Committees from National to Grassroots levels (i.e. District Disaster Management Coinmittec or DDMC, Upazila Disaster Management Committee or UzDMC and Union Disaster Management Committee or UDMC) work according to guidelines set in Standing Orders on Disaster (Shafiullah, 2009).

SOD outlines the role and responsibilities of the ministries, divisions, agencies, organizations, committees, public representatives and citizens for maintaining proper coordination in the event of any natural disaster (GOB, 2010). Due to specific responsibility set by the SOD, question of accountability is to be improved to a great extent by adopting the joined-up government

concept in disaster management. As there are coordination committees from national down to the grass-root level for disaster management, and roles and responsibility are described in SOD, so concerned organization and person responsible for any failure and negligence will be answerable to the committee for ensuring accountability issues. In the highest level, the concerned minister is to be accountable to the Parliament.

The key focus of the National Plan for Disaster Management is to establish institutional accountability in preparing and implementing disaster management plans at different levels of the country. The disaster management plan highlights on a) Bringing a paradigm shift in disaster management from conventional response and relief practice to a more comprehensive risk reduction culture and (b) Strengthening the capacity of the Bangladesh disaster management system in improving the response and recovery management at all levels (GOB, 2010).

The Comprehensive Disaster Management Programme (CDMP) undertaken in 2003 in partnership with the Department for International Development (DFID), UNDP and the European Commission was a strategic initiative of the government that encompasses all aspects of risk management. This facilitates the move from a single agency response and relief system to a whole government holistic strategy that addresses the issue of community vulnerability. The major programme objective is "to strengthen the capacity of the Bangladesh disaster management system to reduce unacceptable risks and improve response and recovery activities" (UNDP, 2005).

7.0 Standing orders on disasters and Coordination

The Standing Orders on disaster have been formulated with the purpose of making the concerned persons understand their duties and responsibilities regarding disaster management at all levels, and accomplishing them. All Ministries, Divisions/Departments and Agencies shall prepare their own Action Plans in respect of their responsibilities under the Standing Orders for efficient

implementation. The National Disaster Management Council (NDMC), Inter-Ministerial Disaster Management Coordination Committee (IMDMCC) and Cabinet Committee on Disaster Response (CCDR) will ensure the coordination of disaster-related activities at the National level. Coordination at District, Upazila and Union levels will be done by the respective District, Upazila and Union Disaster Management Committees. The Disaster Management Bureau will render all assistance to them by facilitating the process (DMB, 2010).

For disaster management, a significant coordinated response by the State and other entities is required for managing the potential adverse effects with a view to mitigating, preventing, preparing for, responding to and recovering from a disaster (Queensland Government, 2010). Preparatory measures are to be taken to ensure that, if an event occurs, communities, resources and services are able to cope with the effects of the event. Effective coordination and appropriate measures are needed to provide with immediate relief and support to the disaster-affected communities in the reconstruction of infrastructure, the restoration of emotional, social, economic and physical wellbeing to minimize the severity of the event.

Once a disaster event has occurred, in the interest of speed and simplicity in disaster response management, coordination should be carried out at the lowest possible level of government organization, with minimum reorganization. Coordination of this highly decentralized arrangement is thus necessary in order to implement of new structures and procedures for an event and hence a local level Disaster Response Coordination group is placed (DMB, 2010).

Disaster management in local level to a great extent depends on certain local organizational response and their coordination mechanism. Specially during disasters, local coordination is recognized as a key element to disaster management. Strong institutional capacity and their coordination mechanism will then advance to a better, more effective disaster management, system

and ensure stronger community awareness and participation. In a City Corporation, a City Corporation Disaster Management Committee (CCDMC) is established. The CCDMC is to carry out all activities (prevention, mitigation, preparedness and response and relief) of disaster management. Similarly at District, Upazila, Pourashava and Union level, the Disaster Management Committees (DMCs) are established, accordingly (DMB, 2010). Involvement of community and local government bodies are important for effective strategy with understanding of local environment for taking appropriate measures.

8.0 Analysis

Why joined-up government approach

Traditionally, governments are organised with vertical structures to provide efficiency, clear lines of accountability and concentration of specialist knowledge. However vertical structures are not well prepared to deal with a complex, multidimensional issue like disaster management which require cross portfolio action (State Services Authority, 2007). This has emphasised the tension of collaborating across organisational boundaries and prompted governments to consider ways to encourage joined up working (Christensen & Laegreid, 2006a; Richards & Kavanagh, 2000).

Cyclone SIDR of 2007 is considered as the strongest cyclone to hit the country since a cyclone of 1991. Due to a well co-ordinated program for joined-up approach, it had been possible to evacuate at least 600,000 people in the path of the storm. Many were housed in 1,800 multipurpose disaster shelters built along the coast. The Government, in coordination with all the concerned departments, NGOs and international organizations, had become successful in responding to the cyclone emergency and assisting the affected population. The Ministry of Disaster Management and Relief activated emergency response committees at the District, Upazila, and Union levels established an operations centre in Dhaka to coordinate relief activities. Military- personnel were deployed to

assist with rescue operations and the distribution of food and relief services. Severe floods in various years are also well managed to reduce the death toll and loss of property with the strategy of joined-up government.

If it is compared the death toll, it shows that the casualties have declined to a large extent due to partnership arrangement in disaster management, though it is still now ongoing and extending to a larger scope. Again if we compare cyclone SIDR (215-260 km/hr, caused death of 3,363 people on 16 November, 2007) with cyclone Nargis (that hit Myanmar with 165-215 km/hr, caused at least 138,000 dead or missing on 3 May, 2008), we see Bangladesh could manage cyclone SIDR (which is more devastating than Nargis) efficiently. Cyclone Nargis causes devastating calamities because of less disaster management capacities of the government of Myanmar (Shafiullah, 2009).

9.0 Barriers for coordination in joined-up government

As disaster management involves cross-sector coordination, there are some inherent challenges for its effectiveness. Since 1997, Bangladesh has adopted the policy of joined-up government approach in disaster management, the recognition in addressing natural disasters like flood and cyclone is well known. Bangladesh has been able to establish a framework to handle natural disaster very carefully. The Standing orders on disasters have been prepared in such a way that all the ministries, armed forces, concerned departments, NGOs in all levels have a detailed and clear guidelines that facilitate for effective coordination among the organizations. But even though theoretically there are barriers for joined-up coordination. These are discussed below with the light of various literatures:

The slogans joined-up government or whole-of-government provided new labels for the old doctrine of coordination in the study of public administration (Hood, 2005). A whole of government approach must co-ordinate the contribution of various departments into a coherent and integrated response. This usually

requires inter-departmental committees and interdepartmental processes (Hyde, 2008).

In many cases it is required to work collaboratively across departments, portfolios or levels of government to address complex issues which cross individual agency boundaries (State Services Commission, 2007). The perspective is on the basis of the assumption that administrative and political leaders use JUG as an instrument to find government organizations to work better together (Christensen and Laegreid, 2007). But co-ordination becomes a challenge and is inherent in all administrative systems designed to organize deliberations, decisions and actions to meet the complex demands of government (Australian Public Service Commission, 2004). This requires them to "join up" processes and systems within and across government tiers, process hierarchies and the public sector, to overcome government's traditional structure in departments and agencies to deliver a seamless set of services and integrate processes across organization boundaries (Maio, 2004). The typical situation of decision making, accountability and performance management with vertical structures can restrain shared outcomes and responsibilities between organisations (Bartos, 2005; Lenihan & Valeri, 2003). The barriers to cross-agency collaboration include differences in organisational goals, professional cultures, lines of accountability, political control styles and decision-making cycles (Boin and McConnell, 2007).

The major concern is with the difficulty of making agencies to work together. The barriers for coordination evolve from inherent characteristics of organizational systems: a) each agency desires to maintain and protect its autonomy and independence; b) organizational routines and procedures are difficult to synchronize and coordinate; c) organizational aims and objectives differ among collaborating agencies; d) constituents bring different expectations and pressure to bear on each agency (Weiss, 1987).

Different organizational procedures, incompatible information system and languages between departments also create barriers for

successful coordination. Due to concern for privacy, legislation or intellectual property rights, sharing information sometimes becomes complicated for effective coordination. Networking for coordination is time consuming and costly that can also be a barrier for effectiveness of joined up coordination.

Joined up government often requires new ways of working across organisations. This includes: articulated and shared goals and outcomes for the project, with realistic expectations about what can be achieved in the short to medium term; high level commitment from all parties involved; sufficient investment of time and resources to develop the structures and models (Curtis, 2006; Pollitt, 2003; Office of Government Commerce, 2006). Joining up requires an internal culture that values collaborative and integrative ways of working and has the capacity for trusting other organisations (Hunt, 2005; Ling, 2002). The ultimate benefit of joined up government approach is improved outcomes for taking a view that is wider than one department or portfolio and contributing to cross-cutting initiatives and promoting innovation, by bringing together people from different organisations and backgrounds. Both formal and informal mechanisms like official liaison, inter-organizational group, coordinating unit etc. may be some tools to improve joined up coordination process.

10.0 Challenges of accountability

Accountability is a challenging issue for joined-up government approach in disaster management. In Bangladesh, disaster management mechanism is based on a well coordinated manner from national to lower level. As there are many government and non-government organizations involved in the disaster management, it becomes difficult for ensuring accountability in all levels. But from each level, there are coordination committee, so for any irregularity or lack of responsibility for any particular person can be made accountable to the concerned committee. The ultimate accountability for the concerned ministry is attributed to the Parliament.

In general terms, accountability means holding individuals and organisations responsible for performance to ensure their activities and outputs meet the intended goals and standard. There has to have clarity in defining authority and responsibility for ensuring accountability. If there is weakness in performance evaluation system for cross-cutting policy issues, there will be difficulty in fixing accountability. Unclear or overlapping lines of authority may create problem for determining accountability. Accountability is achieved through a combination of internal and external pressures. Conventional forms of central accountability do not always fit comfortably with the need for local responsiveness. There have always been dilemmas about accountability in the public sector. The need to simultaneously deliver responsive local public services while maintaining central coordination will always create a tension (Ling, 2002). The challenge is to balance better accountability, horizontal accountability, and responsiveness downward (Ryan and Walsh, 2004).

For joining up to be successful, accountability structures must support working horizontally. Organisations need to reward horizontal as well as vertical targets ensuring clarity in relation to roles, responsibilities and accountability (State Services Commission, 2007). Lack of clarity in defining roles and responsibility and weakness of performance evaluation system in public sector organizations may give rise to weak accountability in JUG. Strong leadership at managerial and ministerial levels and developing new skills and cultures would help to ensure accountability within public sector organizations. According to Perri 6 et al. (1999), "government should innovate with more intermediate and indirect forms of accountability such as focusing parliamentary committees, ministers and others on outcomes rather than functions; adopting new forms of measurement to capture capacity and strategy building; working across boundaries; and building partnerships" (Wilkins, 2002). In case of disaster management, the issue of accountability can be improved to a great extent with stronger parliamentary committee. Media can play an effective role in highlighting the irregularities of management process.

Strategy of Joined up government poses added complexities to accountability and incentive mechanisms. Organisations need shared accountability and transparency about responsibilities. The organizational cultures and behaviour pattern, way of communication etc. need to be addressed for successful joined-up accountability in disaster management.

11.0 Challenges of effectiveness

There has been a growing recognition in Bangladesh that renewed efforts should be directed to improve the effectiveness of the existing disaster management system to reduce unacceptable risks and improve response and recovery activities. Effectiveness indicates whether government's policy aims or goals are achieved. It is an indicator for quality of outputs and is usually measured qualitatively rather than quantitatively. There are administrative effectiveness in terms of processes or procedures and program effectiveness like achievement of programmes with desired goals. For existing disaster management to be more efficient, the activities of all the concerned government departments and agencies need to be well coordinated for successful effectiveness of joined-up government approach.

Strong leadership and political commitment at managerial and ministerial levels and developing new skills and organizational cultures would help to overcome the challenges of effectiveness of joined-up government approach to strengthen the capacity of the Bangladesh disaster management system to reduce disaster risks and hazards.

12.0 Conclusion

With the ever expanding dimension of climate change, Bangladesh has a greater risk of facing more natural disaster in future. Effective disaster management activities are so challenging that joined up coordination is very expected approach. With joined-up government approach, Bangladesh has been better able to address the risks and consequences of natural disaster. Due to the nature of joined-up approach, there are challenges of coordination and

accountability but there is wide agreement that for cross-cutting issues joined up government strategy is desirable. With a view to addressing the complex and multidimensional problem of natural disaster, Bangladesh needs to realize joined up government approach. This can be achieved through facilitating the conditions necessary for creating an environment where joined up approach can work properly. Due to conflicting goals and interests among the various government agencies, joined up approach faces different barriers. Organizational structures, cultures, behaviour as well as performance management and accountability systems have to be considered to find out strategy to overcome the barriers of joined-up government. The Standing Orders on Disasters outline the detailed roles and responsibilities of Committees, Ministries, Departments and other organizations involved in disaster risk reduction and emergency response management, and establish the necessary actions required in implementing disaster management plan of the government. The National Plan for Disaster Management, Guidelines for Government at all Levels (Best Practice Models), the comprehensive disaster management programme- all are initiated with the vision of a sustainable disaster management strategy for Bangladesh to face the challenges of 21st century.

Appendix

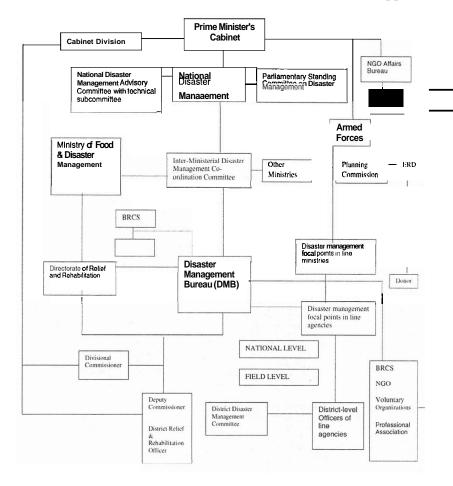


Fig. 1 Organizational structure and institutional arrangements for disaster management at the national level

Adapted from : Khan, M. R. and Rahman, M. A. 2007. "Partnership approach to disaster management in Bangladesh: a critical policy assessment", Natural Hazards, 41 (2): 359-378

Appendix

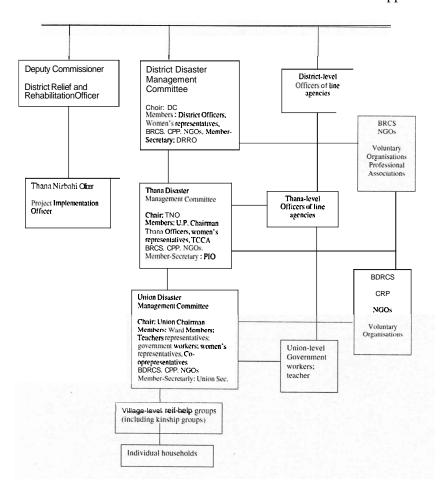


Fig 2 : Organizational structure and institutional arrangements for disaster management at the field level

Adapted from: Khan, M. R. and Rahman, M. A. 2007. "Partnership approach to disaster management in Bangladesh: a critical policy assessment", Natural Hazards, 41 (2): 359-378.

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