



Summary Report

Trends of Disaster Related Public Fund Allocation in Bangladesh
An analysis of ADP's during 6th Five Year Plan period (FY 2011- FY2015)

Programming Division
Planning Commission
The People's Republic of Bangladesh



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This summary report is prepared by

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1. Introduction

Bangladesh, because of its geo-physical location, topography and high population density, is at risk from recurring natural and human induced hazards where millions of people are affected every year. Frequent floods, cyclones, river bank erosion, water-logging, drought and tornadoes significantly disrupt Bangladesh's economy, the lives and livelihoods of its population. In addition, adverse impacts of climate change are likely to wipe out economic progress made through development programs and projects. A country's specific risk is determined by multiplying its exposure by its vulnerability. Risk is at its highest where a high level of exposure to natural hazards coincides with very vulnerable societies. On the other hand, low societal susceptibility and a high capacity to deal with hazard exposure can, to an extent, mitigate and limit the disaster risk, even in exposed countries. Netherlands, for example, is a country with a very high hazards exposure (rank 12), meaning that almost one third of its population is exposed to floods, storms, sea-level rise, or other hazards. At the same time, it is among the countries with the lowest vulnerability (rank 162 out of 171), due to its very low susceptibility and very high short-term coping and long-term adaptive capacities. In terms of the overall risk, Netherlands therefore ranks 49 despite its much higher exposure ranking. In contrast, Bangladesh has a similar exposure level (rank 10) but ranks near the top (5) on the overall risk index. This is because the high hazard exposure in Bangladesh is coupled with a high vulnerability, composed of high susceptibility (rank 45) and a severe lack of both short-term coping capacity (rank 21) and long-term adaptive capacity (rank 28)¹. Vulnerability of Bangladesh to risks induced by natural hazards and climate change is a challenge for sustainable development. Based on global level estimation of damages due to climate change induced hazards and disasters, it has been inferred that the corresponding cost for Bangladesh may potentially be in the order of US\$ 4 to 14 billion per annum².

2. Context and Rationale

The Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030 has set out four priorities of actions for the development of safe and resilient communities around the world. SFDRR articulates the following: the need for improved understanding of disaster risk in all its dimensions of exposure, vulnerability and hazard characteristics; the strengthening of disaster risk governance, including national platforms; accountability for disaster risk management; preparedness to "Build Back Better"; recognition of stakeholders and their roles; mobilization of more risk-sensitive investment to avoid the creation of new risk and manage existing risk; resilience of healthy infrastructure, cultural heritage and work-places; strengthening of international cooperation and global partnership, and risk-informed aid policies and programs, including financial support and loans from international financial institutions.

The 'Transforming Our World: The 2030 Agenda for Sustainable Development' outcome document highlights the need for disaster risk reduction across a number of sectors in line with the understanding that disaster risk reduction is cross-cutting and requires a multi-sectoral approach. The Conference of the Parties (COP) 21 Paris Agreement also

¹ World Risk Index 2016

² Nahar N.D. & Sajjad S. M. 2013; Allocation for disaster risk reduction (The daily star, Published on June 28)

focused on the need to build resilience to climate shocks and stresses by establishing a 'global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change'. COP 22 Advanced negotiations on adaptation communications, decided to review the loss and damage mechanism.

All three agreements share a common aim of making development sustainable. Strong commitment to ambitious goals and accelerated implementation of these international agreements must be a global priority. Considerable work will be required to ensure coherence and mutual reinforcement between disaster risk reduction and the post-2015 development agenda. The key challenge lies in determining the interlinkages between the existent 2030 agendas and frameworks, in order to achieve resilient and sustainable development.

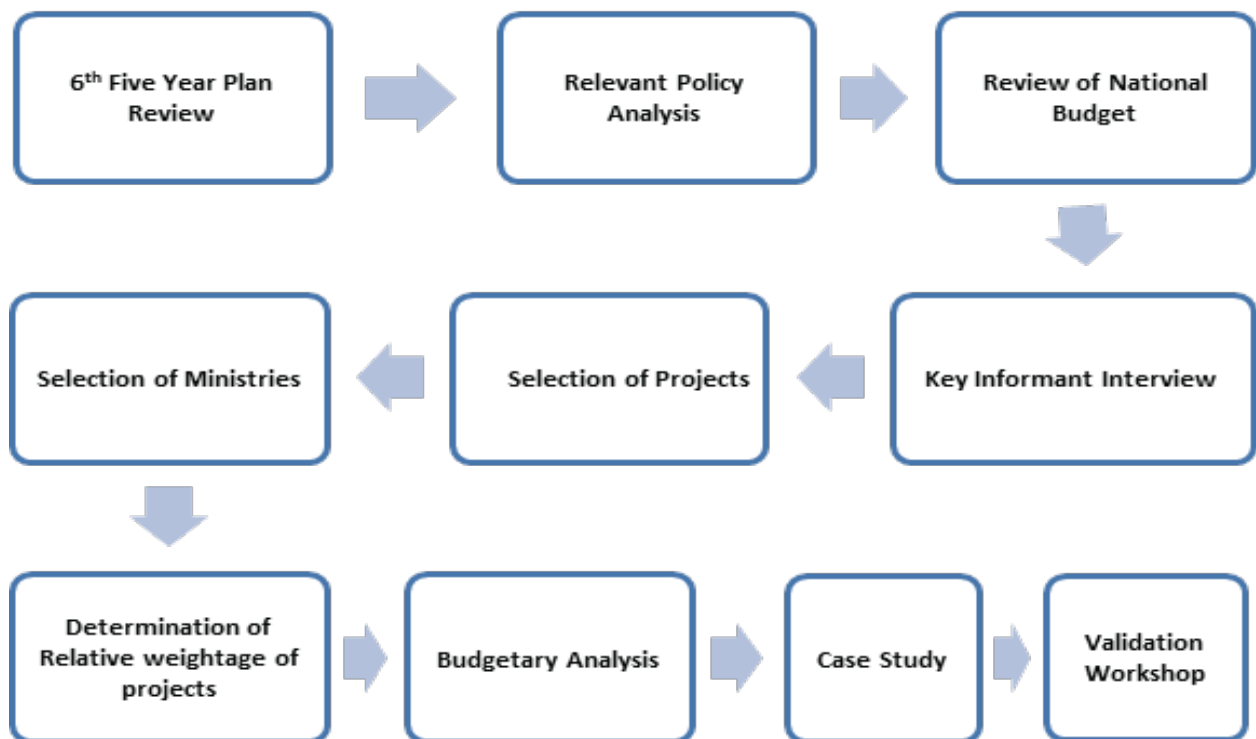
This renewed sense of urgency on the issues related to disaster risk reduction and the development of resilience among the communities at risk has prompted the Government of Bangladesh (GoB) to formulate and execute national policies that aim to achieve the targets of disaster risk reduction, resilience and sustainable development as enshrined in the global guidelines. GoB executes development activities by formulating the Annual Development Programme (ADP) every year where allocation is provided for a number of development projects. Against this background, it is imperative that the "resilience nexus", i.e. the intersections and meeting point of poverty, environment, disaster and climate change, is adequately addressed through the mainstreaming of the poverty, environment, disaster and climate change in the development project planning. Moreover, there are number of GoB instruments now in place to address tracking and mainstreaming DRR related financial allocations in development project and planning. This study is dedicated to investigate the scope related interventions of ADP allocations in 6th Five Year Plan (FY 2011- FY 2015) period as well as to recommend how to address the existing loopholes to meet the future challenges for sustainable development following available national and international instruments.

3. Scope and Objectives

This study has been initiated with the objective of understanding the extent of integration of Disaster Risk Reduction (DRR) and Disaster Preparedness (DP) into the ADP of GoB. The study also aims to identify the share of resources of the country's development budget allocated for DRR and DP during the period of 6th Five Year Plan (FYP). Overall objective of the study is to "find out the gaps in ADP allocation against the targets for disaster risk reduction and disaster preparedness in the national development plan: 6FYP and scope of integration of DRR & DP in Development Project Pro-forma (DPP) and development planning and budgeting guidelines. National Alliance for Risk Reduction and Response Initiatives (NARRI) has facilitated the whole study including costs; while Programming Division of Planning Commission provided technical guidance and support. The study is one of its kind in Bangladesh as no such dedicated research has explored the public resource allocation in terms of DRR & DP in the country.

4. Methodology

This research has followed several stages from the beginning to the end. Most of the primary level activities have dealt with literature review and data analysis which have further devolved into field interviewing followed by another series of data analysis. Initially a general review of national policies with regard to disaster management and formulated or updated during the 6th Five Year Plan (FY 2011- FY 2015) were reviewed. After the analysis of the relevant policies had been finished, the research team moved towards the analysis of Revised Annual Development Programs (RADP). There were a total number of 39 ministries/divisions who have implemented, *grosso modo*, 2125 development projects during the 6FYP period. The researchers looked into activities of these ministries/divisions as mandated by the Rules of Business and identified 6 ministries/divisions who undertake projects for disaster risk reduction and disaster preparedness. Afterwards, researchers started selecting relevant projects of the 6 ministries. The project selection was made on the basis of three activities, namely: title analysis, DPP analysis and expert opinion. Firstly, the relevance of the projects was being scrutinized based upon their title. If the title did not provide any clear conception about the activities of the projects, the DPP, where available, was studied to check the relevance. For some of the completed projects the DPP was not



available. In such cases expert opinion of the TAC was used for the selection of projects for the study purpose. A total of 164 projects were found as relevant for the study purpose. Afterwards, the selected 164 projects were counter checked through the interviewing of the corresponding ministry officials in order to ensure that only relevant projects get selected. During the interviewing, the ministry officials were asked to rate the selected projects into three categories: high, medium and low, according to the relevance of the selected projects with DRR. During the interviewing, the ministry officials were asked to rate

the selected projects into three categories: high, medium and low, according to the relevance of the selected projects with DRR. In addition to the quantitative information, the ministry officials were also asked about the problems and challenges in the disaster related project implementation in Bangladesh. After the weightage had been assigned to all of the selected projects, the research team carried out trend analysis of disaster related development allocations as given in the ADP's. Finally, small scale case studies were conducted on some selected projects out of total projects on DRR during 6th FYP (2011-2015) period. It helped to verify the findings from data analysis.

5. Limitations of the Study

The findings of this research are not without several limitations. Time and resource constraints, unavailability of required data and data extraction complexities were among the major barriers for in depth analysis. The boundary of analysis was also determined following the terms and conditions of Terms of Reference (ToR). While the dearth of a priori data in this discourse was a bottleneck for developing the theoretical framework and mindset for data analysis, the budgetary data needed to be complemented with field level data analysis. The DPP analyzed even by title did not reflect the DRR activities, though DRR was an embedded intervention in the project. Several Focus Group Discussions (FGD) and Key Informant Interviews (KII) were conducted during relevance criteria determination and field data collection. This can be attributed to the reason behind some of the findings of the research which are subjective in nature. Therefore the researchers had to drive forward while keeping in mind the barriers of non-statistical factors³.

6. DRR Relevant Policy Analysis

One of the key entry points to understand the DRR allocation was the analysis of policy and institutional framework for disaster management in Bangladesh. Disaster management has long remained an insignificant concern in development sectors. However, trends of professionalism in this field started since 2004 with a paradigm shift from relief dependent disaster management to disaster risk reduction and the adoption of Hyogo Framework of Action (HFA) in 2005. The initiation of Comprehensive Disaster Management Programme (CDMP) and the HFA during 2004-2005 contributed to changes in institutional and policy framework which has been briefly overviewed in this study. Disaster Management Act (2012) of Bangladesh, National Policy of Disaster Management (2015), improvement of the Standing Orders on Disasters (2010) and a tailwind towards the Sendai Framework for DRR (2015) as well as the Sustainable Development Goals (2015) for 2030 & onwards have marked the period of analysis a significant and eventful one. The common trends of these selected policies developed during this time are enlisted below.

- The policies aimed to articulate the long-term strategic focus of disaster management in Bangladesh.
- The policies demonstrate a commitment to address key issues: risk reduction, capacity building, information management, climate change adaptation, livelihood security, issues of gender and the socially disadvantaged, etc.

- These key policies show the relationship between the government vision, key result areas, goals and strategies, and national drivers for change.
- In detail, the policies show us a road map for the development of disaster management plans by various entities.
- The policies illustrate the relationship among ministries, NGOs, civil society and the private sector regarding how their work can contribute to the achievements of the strategic goals and government vision on disaster management.
- The policies provide a framework regarding the performance and success in achieving goals and strategies.

7. Key Findings

7.1 General Trend of Budget During 6FYP

Although there have been a decrease in gap between the development and non-development portion of the budget during the 6FYP period (non development budget being 2.14 times the development budget in FY 2015 compared to 2.5 times in FY 2011), less than the one third of the overall budget has been allocated as the development budget.

Table 1: Development and Non-development budget allocation during 6FYP period

Year	Revised Budget (in Crore Taka)		
	Total	Development	Non-Development
2010-11	130011	37173	92838
2011-12	161213	42364	118849
2012-13	189326	53859	135467
2013-14	216222	61194	155028
2014-15	239668	76372	163296

7.2 Ministry and Project Selection

The six relevant ministries, identified as per Rules of Business are as follows:

- Ministry of Agriculture (MoA)
- Ministry of Environment and Forest (MoEF)
- Ministry of Local Government, Rural Development and Co-operatives (MoLGRDC)
 - Local Government Division (LGD)
 - Rural Development and Co-operatives Division (RDCD)

- Ministry of Housing and Public Works (MoHPW)
- Ministry of Disaster Management and Relief (MoDMR)
- Ministry of Water Resources (MoWR)

A total of 699 ADP projects were implemented by these six ministries during the 6FYP period (FY 2011 – FY 2015). Among them 164 projects were identified as DRR sensitive. These projects fall under five of the seventeen ADP sectors. The ministry-wise and ADP sector-wise distribution of the projects are shown in figure 1 and figure 2 respectively.

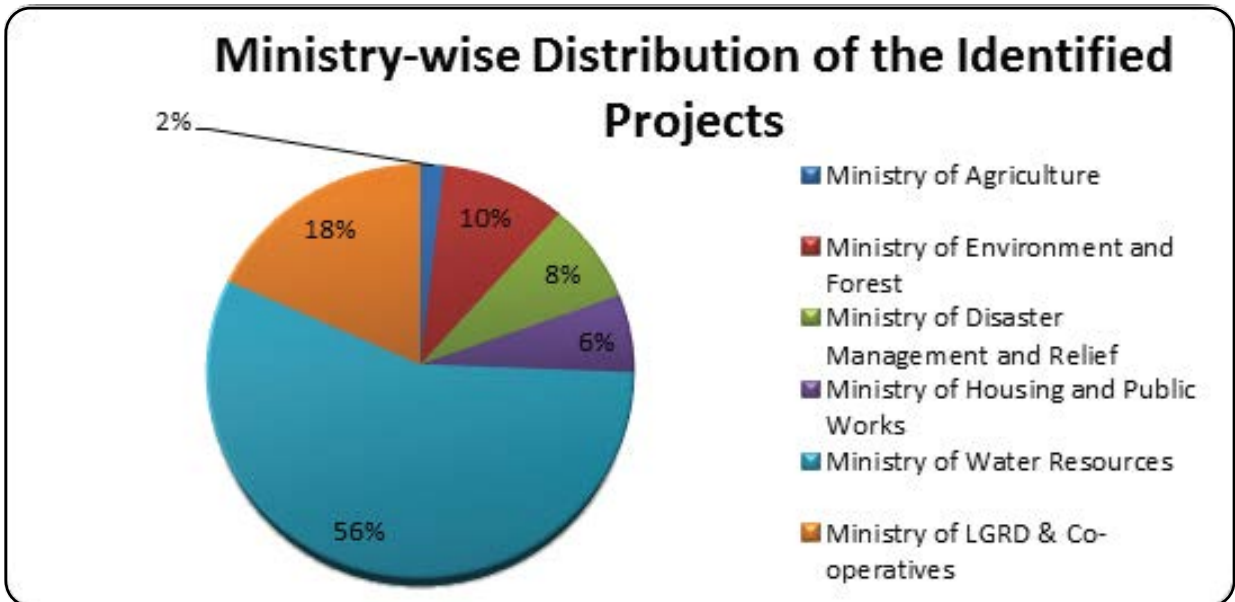


Figure 1: Ministry-wise distribution (Count) of identified DRR sensitive projects during 6FYP

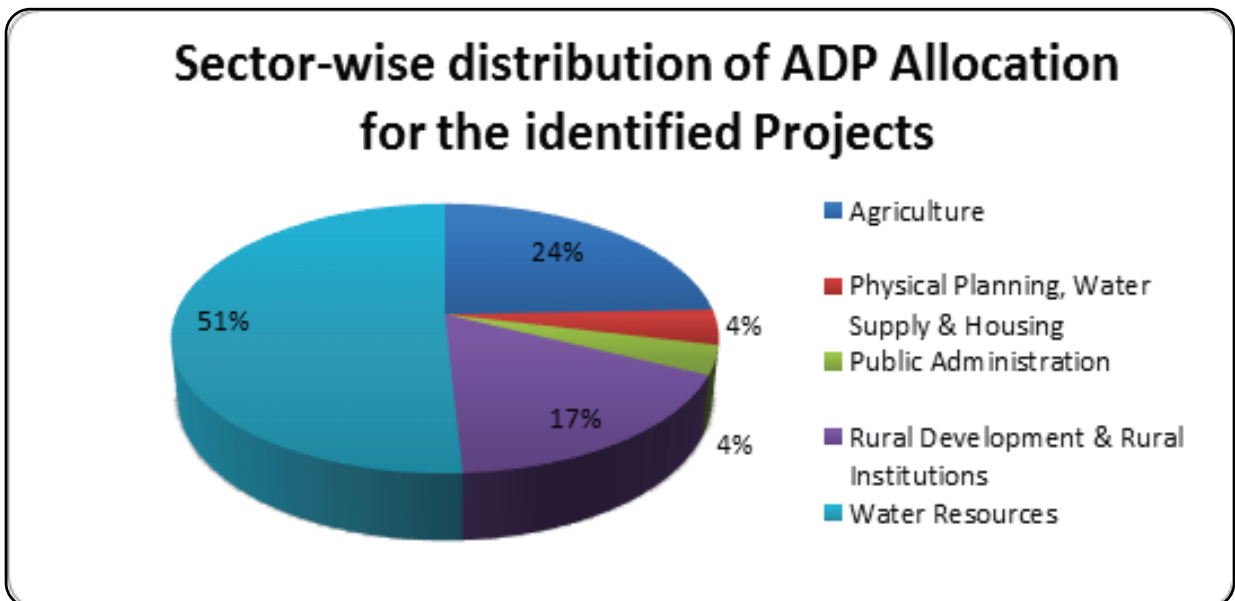


Figure 2: Sector-wise distribution of ADP allocation for the identified DRR sensitive projects during 6FYP Period

7.3 Spatial Distribution of Project

Figure 3 exhibits the distribution of DRR sensitive projects for within four of the identified ministries e.g. Ministry of Agriculture (MoA), Ministry of Local Government, Rural Development and Co-operatives (MoLGRDC), Ministry of Disaster Management and Relief (MoDMR) and Ministry of Water Resources (MoWR). Most of the projects were implemented in the Southern portion of Bangladesh, which is prone to multiple hazards. Among these projects, major portions were implemented by MoLGRDC, which were predominantly structural measures to address DRR. There were only a limited number of projects in the Chittagong Hill Tracts region of Bangladesh, most of which were implemented by Ministry of Disaster Management and Relief. Such distribution of disaster management related projects across the districts reveals the mainstreaming initiatives of DRR in the country.

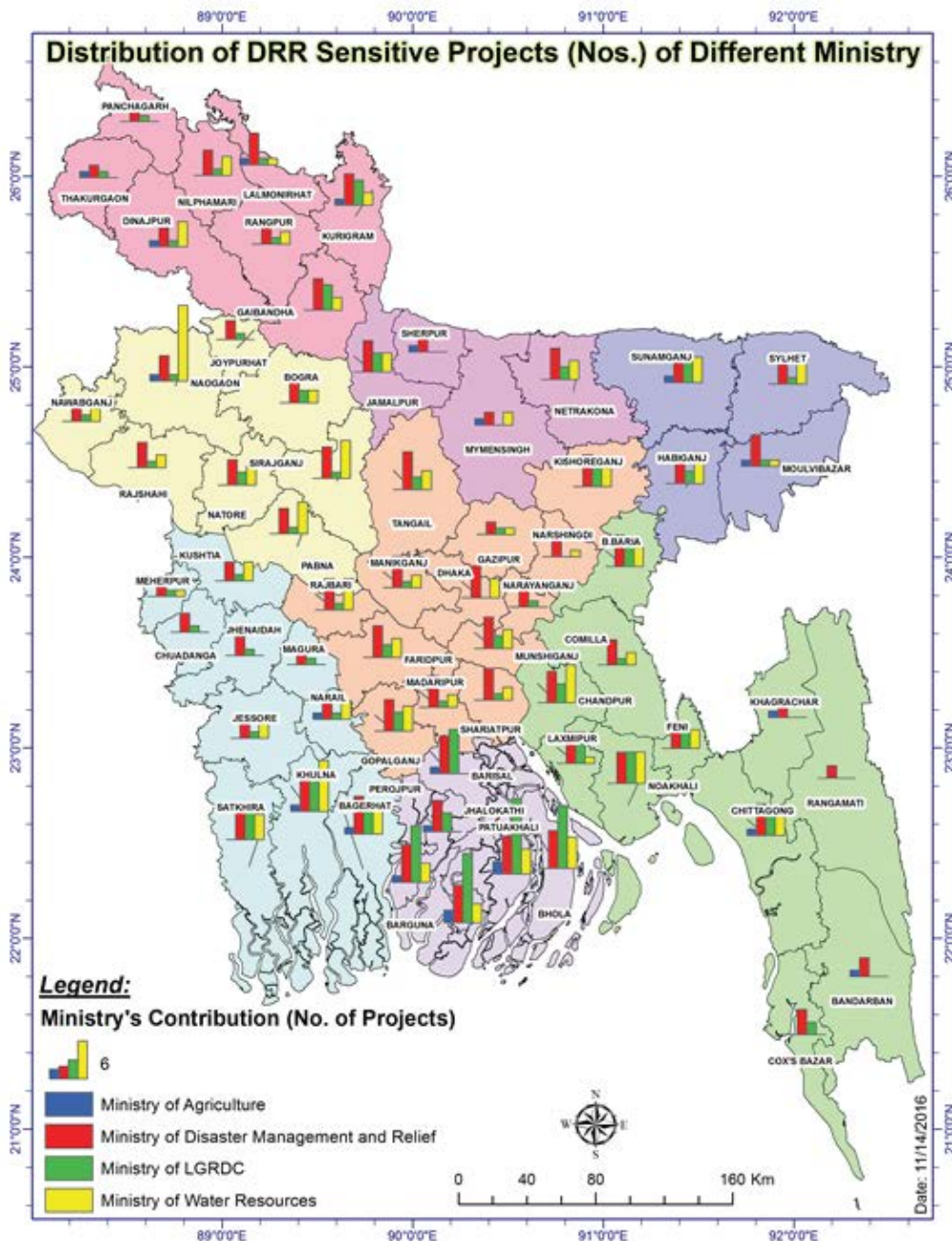
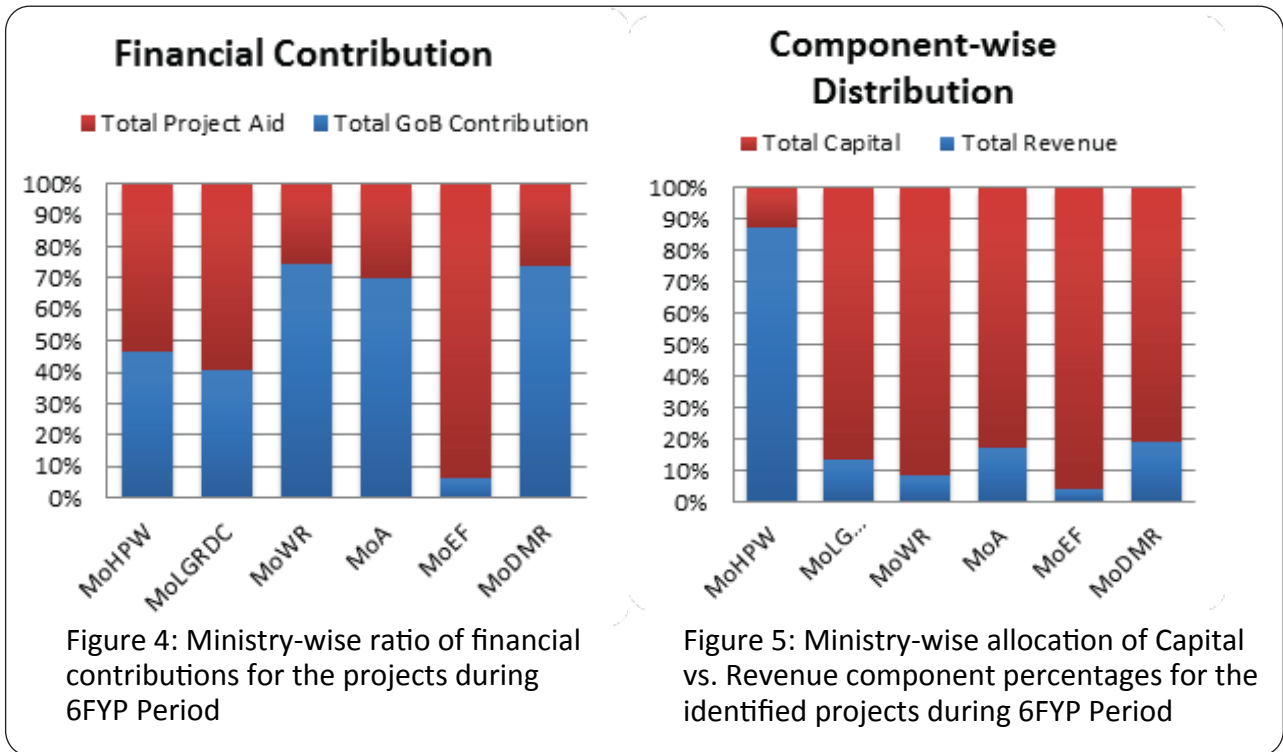


Figure 3: Distribution of DRR Sensitive Projects of different Ministries during the 6FYP

7.4 Source of Resource Allocation and Distribution

Figure 4 shows ministry-wise percentage of financial contributions for the selected projects. Among the selected DRR sensitive projects during 6FYP Period, the projects implemented by Ministry of Water Resources, Ministry of Agriculture as well as Ministry of Disaster Management and Relief are predominantly GoB-funded whereas project aid accounted for approximately 94% of the budget for the selected projects implemented by Ministry of Environment and Forest. Figure 5 exhibits Capital vs. Revenue components percentages for the identified projects during 6FYP Period. For these projects, less than 20% were allocated for the revenue components in most of the ministries, except MoHPW, which had more than 85% revenue component.



7.5 Trend of Allocation for Individual Ministries

Figure 6 exhibits ministry-wise trend of DRR sensitive ADP allocation for the selected projects during the 6FYP period. Allocation for DRR sensitive projects of MoWR, MoDMR and, to an extent, MoEF observed significant increases in FY 2013 whereas Ministry of LGRDC observed subtle increase in FY 2012.

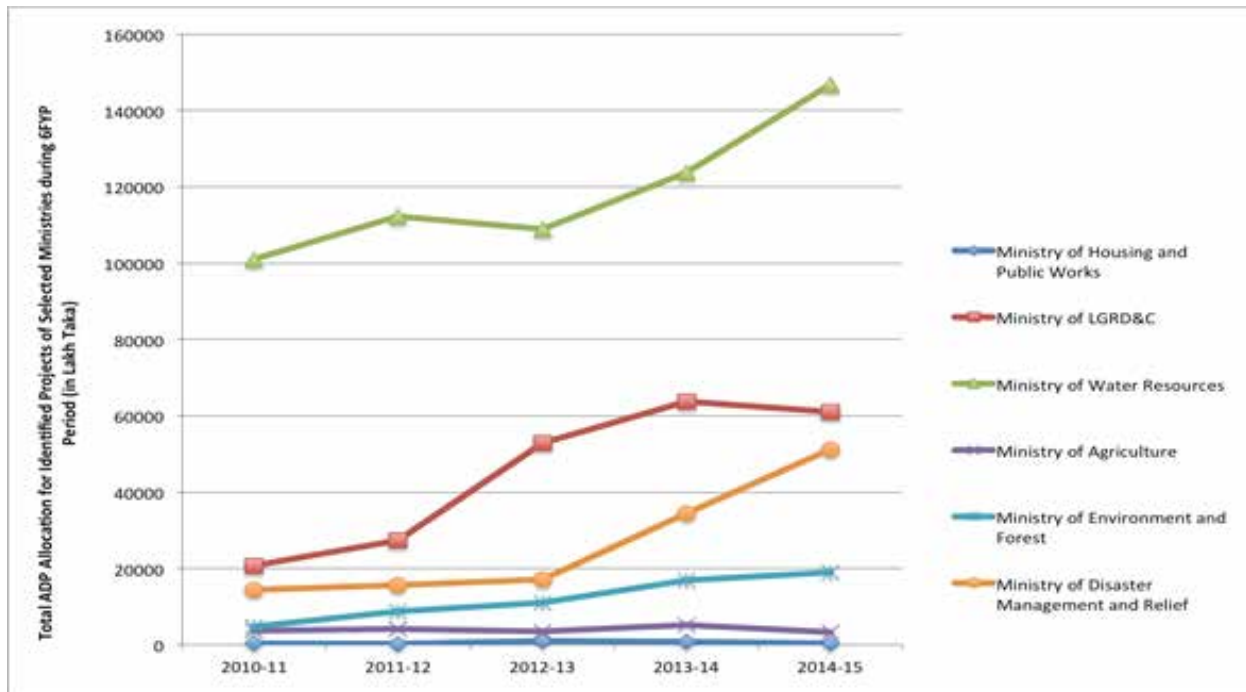


Figure 6: Year-wise trends of identified DRR sensitive projects for the selected ministries during 6FYP Period (FY 2011- FY 2015)

7.6 Relevance Criteria Determination and Categorization

Accuracy of findings and relevance of projects were further tested by a questionnaire survey among the project officials of these 6 ministries. The survey ensured a cross checking of the selected projects by ministry officials who had knowledge with regard to the implementation of these projects. Interviewees identified the percentage of allocation for DRR among all the projects. This assigned weight⁴ had been used to broadly classify the 164 projects into three categories: high, medium and low.

Any project with more than 70 percent of total allocation with the purpose of DRR was identified as high relevance project. Medium relevance projects had DRR related allocation of 40-69 percent from the total allocation. Rest of the projects which spent less than 40 percent of allocation for DRR were identified as low relevance projects⁵. The boundary for high, medium and low has been determined based on three factors namely: KII, Expert Opinion & Field Experience. During the interviewing most of the ministry officials supported the fact that any project that receives more than 70 percent of total allocation for DRR can be regarded as highly relevant project. 100 percent allocation is not completely spent for DRR due to the fact that the allocation is also used for some other miscellaneous purposes which is beyond the objective of the project. Following the KII's the researchers reviewed the allocations for each of the 164 projects' allocation as given in the ADP books. This review supported the conclusion drawn by the researchers after the analysis of the findings from KII. It also seemed to match the "expert opinion"⁶ in this regard. The categorization was finally counter checked by case studies in the field. Field officials and project beneficiaries were also asked to rate the relevance of the particular project with DRR. Based on the three sources of verification, the boundary of the classified categories, as mentioned in the box, was fixed.

⁴ Percentage of allocation for DRR & DP from the total budget

⁵ Decimal Values have been adjusted as Integer Numbers

⁶ It refers to the knowledge and wisdom of the researchers and TAC members

This categorization emphasizes the extent to which DRR & DP have been addressed by the projects, not merely its monetary allocation. Based on the categorization of the 164 projects, 94 projects are considered to have high relevance, 53 projects have medium relevance and 17 projects have Low relevance with DRR & DP. The ministry-wise distribution of these categorized projects are shown in Table 2.

Ministry Name	Total Projects Implemented During 6FYP Period	Disaster Sensitive Project Count			
		Total	High 70-100% (avg. 85%)	Medium 40-69% (avg. 55%)	Low >40% (avg. 20%)
Ministry of Agriculture	120	3	1	2	0
Ministry of Environment and Forest	59	16	7	8	1
Ministry of Disaster Management and Relief	17	13	6	7	0
Ministry of Housing and Public Works	43	10	5	4	1
Ministry of Water Resources	112	92	59	26	7
Ministry of LGRD & Co-operatives	348	30	16	6	8
Total	699	164	94	53	17

Table 2: Frequency and categorization of DRR Sensitive Projects implemented during 6FYP period (FY 2011- FY 2015) in the selected Ministries

Respective weightage values were applied to ADP allocations for each of the projects in order to determine more precise DRR sensitive ADP allocation. Table 3 shows ministry-wise distribution the weighted total ADP allocations for the identified 164 DRR sensitive projects during 6FYP period. The overall weighted ADP allocation was 68.5% of the total ADP allocation for these projects during the 6FYP period (FY 2011 – FY 2015).

Ministry Name	Weighed Total DRR Sensitive Allocation (in Lakh Taka) [A=B+C A=D+E]	Weighed Total GoB Contribution (in Lakh Taka) [B]	Weighed Total Project Aid (in Lakh Taka) [C]	Weighed Total Revenue (in Lakh Taka) [D]	Weighed Total Capital (in Lakh Taka) [E]
Ministry of Agriculture	19854.25 (56.7%)	13504.7 (55.0%)	6349.55 (60.6%)	3572.5 (58.7%)	16281.75 (56.2%)
Ministry of Environment and Forest	60329.65 (75.4%)	3219.1 (63.7%)	57110.55 (76.2%)	1204.5 (59.2%)	38365.2 (79.2%)
Ministry of Disaster Management and Relief	132626.4 (63.7%)	86318.35 (56.1%)	46308 (85.0%)	33434.15 (83.4%)	99192.2 (59.0%)
Ministry of Housing and Public Works	2951.25 (75.1%)	1155.2 (63.5%)	1796.05 (85.0%)	2566.05 (74.6%)	385.2 (78.5%)
Ministry of Water Resources	592829.65 (69.0%)	451450.05 (69.5%)	148672.05 (66.7%)	47890.6 (64.7%)	550103.55 (69.2%)
Ministry of LGRD & Co-operatives	226022.5 (69.9%)	85047.8 (65.3%)	140651.7 (73.4%)	24223 (56.3%)	201722.5 (72.0%)
Total	1034613.7 (68.5%)	640695.2 (66.4%)	400887.9 (72.1%)	112890.8 (66.9%)	906050.4 (68.6%)

Table 3: Weighted DRR Sensitive Investments for the Identified DRR sensitive projects (164 in Total) during 6FYP Period (FY 2011- FY 2015) and their percentage of the total DRR Sensitive Project Investments

Figure 7 shows distribution of DRR sensitive projects implemented by four of the six selected ministries. The figure suggests that a large number of these projects were implemented in southern Bangladesh during 6FYP. As per categorization criteria mentioned before, most of these projects were categorized as Highly DRR sensitive projects.

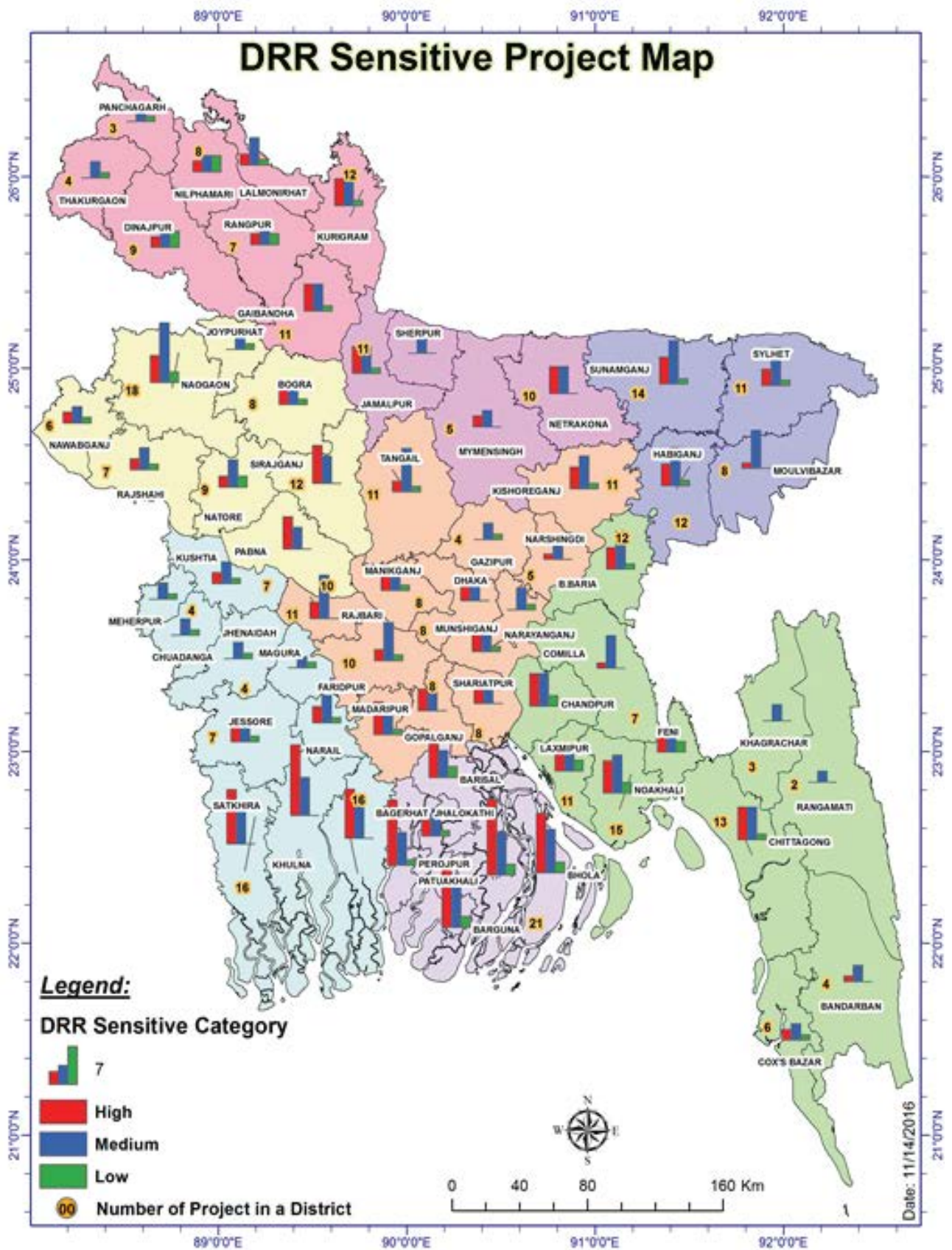


Figure 7: DRR categorization and Distribution of DRR sensitive Projects during the 6FYP

7.7 Hazard Based Investment

Figure 8 exhibits the percentage of projects addressing individual hazards. As many of the projects address multiple hazards (the addressed hazard count are 252, well over the number of identified 164 projects) the total addressed hazard count is approx.154% of the total number of projects.

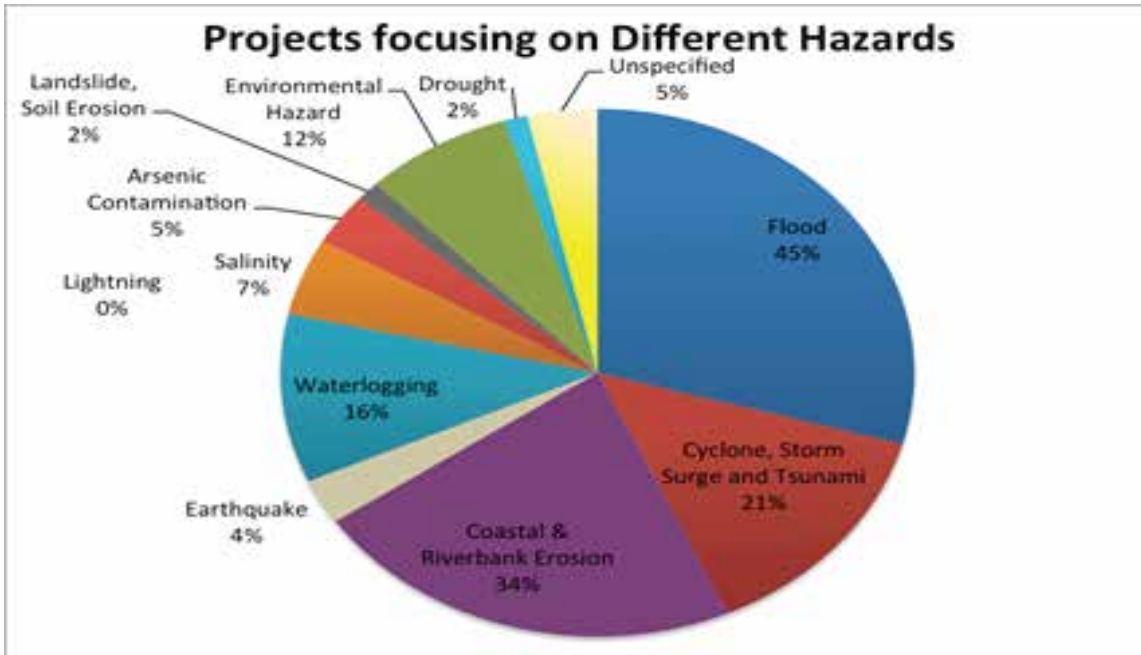


Figure 8: Percentage of Projects addressing specific hazards during the 6FYP period

Figure 9 suggests that 57.3% of the identified projects addressed a specific hazard whereas 37.2% of the identified projects addressed multiple hazards. 5.5% projects addressed issue of resilience but did not specifically address any particular hazard. Projects that address multi hazards are much more cost efficient than the projects that are formulated to address single hazard.

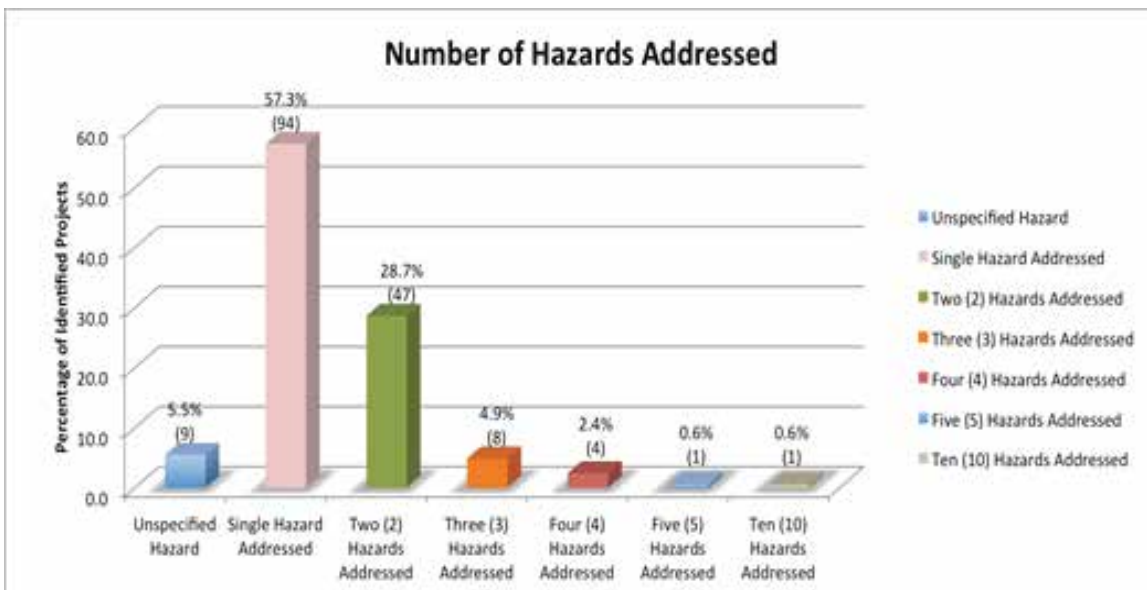


Figure 9: Percentage of Projects addressing multiple hazards during the 6FYP period

8. Field Investigation

The research findings have also deployed the techniques of field study to authenticate its data and enrich the content. Six different projects from the hazard prone areas were identified and FGDs, KIIs were conducted to collect data in the field. Some insights that came out from field visit during this study regarding the project implementation can be very important for the policy makers. There are various problems in implementation phase, along with some success stories as well. One thing that is quite visible from the field experience is, both implementers and beneficiaries are somewhat aware with the relevant concepts of Disaster Risk Reduction (DRR) and Disaster Preparedness (DP) e.g. adaptation, mitigation, participatory and inclusive approach, gender sensitiveness, alternative livelihood generation etc. They are practicing these concepts in addition to their local knowledge base for sustaining their livelihoods against the odds. In the policy review section of this study, it is clearly mentioned that, these concepts were mentioned in the 2009 onward policies e.g. SoD (2010), Disaster Management Act (2012), National Plan for Disaster Management (2014), National Disaster Management Policy (2015) etc. This awareness is basically the result of mainstreaming of these policies through various development projects, which have been selectively analyzed in this study. On the other hand, one of the major problem is absence of relevant human resources or expertise in the implementing agencies. Though this problem is mitigated to some extent by the involvement of NGOs in the implementation process. The involvement of NGOs contributes as bridging entity between the mother organization and community people, has mushroomed in Bangladesh in the last few decades. Also, the market economy also found to be an essential factor for achieving desired success through a project. Sometimes the final outcome of a project is a market product e.g. increase of agricultural production or manufacturing of certain commodity for generating alternative income source etc. and it fails to comply with the market demand, the entire project success become uncertain.

9. Conclusions

Critical analysis of development projects help to find out the loopholes of existing activities and the gap between the policy and achievements. As disaster management is a cross-cutting issue and involves so many sectors, the analysis couldn't be done in a straightforward way. Despite of the challenges, the findings from the analysis of this pioneering study can be a beacon for increasing the efficiency of policy formulation and project implementation in the field of disaster management.

In this study 2125 development projects, *grosso modo*, during Sixth Five Year Plan Period (2011-2015) from 39 ministries were taken into account. The total allocation for these projects was 270962 coreTaka. Out of these projects, 699 projects were shortlisted which belonged to 6 relevant ministries for further screening. The allocation for these projects were 72,024 crore Taka. From there 164 projects were finally selected as disaster sensitive for detailed analysis. From the trend analysis it was appeared that, 14.3% of the allocation for the 6 ministries was identified as disaster sensitive, which is 3.8% of total ADP allocation during Sixth Five Year Plan.

Despite strong policy provision for disaster risk reduction there is evidentially low

alignment of disaster sensitive allocation in development budget. Therefore, the policy provisions are not well translated in to concrete actions, when we examine the budget allocations.

The overall research finally draws upon the conclusion that there are still ample scopes of in-depth research to find out the nuts and bolts of development allocation & expenditure for DRR in Bangladesh. The government has consistently increased the gross allocation for DRR in 6th FYP period that comply with the 3rd priority action of Sendai framework for DRR which states that, “Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment”. Despite the DRR investment, a dearth of proper understanding of the inclusion of structural and non-structural vulnerability in the project formulation as well as project implementation phases still persist. This information asymmetry can be a barrier for DRR investment towards attaining its maximum return. The understanding between implementation agencies and the beneficiaries need more bridging.

10. Recommendations

Based on the findings and gaps, followings are the recommendations to consider during the formulation and implementation of development projects.

A) Development of DRR sensitive inclusive framework

Considering the available national and international instruments, an inclusive framework should be developed to allocate the resources in line with DRR & sustainable development. Although the 7th FYP has integrated the SDGs, but a review can be done to incorporate the pillars of SFDRR.

B) Enhancing Communication Between Ministries

There should be an official focal point in the relevant ministries to provide climate change and disaster management related financial information. The study shows that not only the 6 ministries have relevant investment for DRR part. There are several other ministries, e.g. Ministry of Education, Ministry of Women and Children Affairs, have carried out DRR related activities. Information and knowledge on the DRR issues need to be managed through intra and inter agency cooperation. A focal point can help in this regard.

C) Disaster perspective plan

Disaster perspective plan for 2030 could be formulated in accordance with the global policy instruments and national development priorities. This will provide strategic guidance to address the upcoming challenges in DRR and safeguard the public investment for the same purpose. 2030 marks the end of the SDG's and SFDRR. So, to complement the implementation of SDG's, SFDRR a new disaster perspective plan can provide visionary goals and strategic directions for overall disaster management including DRR & DP.

D) Project Design

In each ADP more than 200 new projects are added with allocations. These projects should

be designed in a standardized technique to objectively address the DRR components and increase the visibility of the embedded investments for DRR. In addition, project titles, wherever possible, should precisely reflect the DRR objectives as per DPP irrespective of the mandates of the ministry.

D) Economic Codes for Disaster Management

DRR/DP expenditures could be integrated into the existing classification of economic codes/ sub-codes. This will help in allocating and tracking public investment on disaster risk reduction.

E) Disaster Impact Assessment (DIA)

At present the DPP includes the provision of Environmental Impact Assessment (EIA), which is not a comprehensive approach to assess hazard risk of development projects. In a separate article, Disaster Impact Assessment (DIA) should be added as an item in DPP in case of DRR sensitive projects that would be based on Disaster Risk Assessment i.e. Community Risk Assessment (CRA) & Urban Risk Assessment (URA).

F) Central Database Management System

The database of Programming Division, IMED & the Ministry of Finance could be interlinked to exchange digital data and information. A central database management system will help to preserve the clean data and remove the digital data extraction complexities.

G) Lag Time Reduction

Sometimes the lag time (difference between project approval date and actual start date) becomes a constraint, as it lessens the project efficiency. The time gap between the inception of a project and its implementation puts the relevance of some projects at risk.

H) Smart Indicator Development

Smart indicators for monitoring and evaluation should be developed and applied to review the extent of DRR being addressed by a particular project.

(Footnotes)

¹ World Risk Index 2016

² Nahar N.D. & Sajjad S. M. 2013; Allocation for disaster risk reduction (The daily star, Published on June 28)

³ Non-statistical factors refer to public sentiment, mindset of the stakeholders, openness to accept new findings etc. to name a few.

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