

Ghana

Risk-sensitive Budget Review



Building Disaster
Resilience in
Sub-Saharan Africa



Initiative of the African, Caribbean and Pacific Group of
States funded by the European Union

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030



UNDRR

UN Office for Disaster Risk Reduction

UNDRR Country Reports on Public Investment Planning for Disaster Risk Reduction

This series is designed to make available to a wider readership selected studies on public investment planning for disaster risk reduction (DRR) in cooperation with Member States.

United Nations Office for Disaster Risk Reduction (UNDRR) Country Reports do not represent the official views of UNDRR or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Country Reports describe preliminary results or research in progress by the author(s) and are published to stimulate discussion on a broad range of issues on DRR.



Table of contents

List of figures	ii
List of tables.....	iii
List of boxes	iii
List of acronyms.....	iv
Acknowledgements.....	v
Executive summary	1
1. Introduction.....	2
2. Ghana at a glance	3
3. Disaster risk reduction in Ghana	4
3.1. Past disasters and losses.....	4
3.2. Disaster risk governance.....	5
4. Risk-sensitive budget review	6
4.1. Methodology	6
4.2. Scope of the analysis.....	7
4.3. Principal and significant marked DRR budgets	9
4.4. Marked DRR budget across the DRM cycle	13
5. Conclusion and recommendations	18
References	20
Annex 1: Risk-sensitive budget review methodology	22
Annex 2: Tables	25

List of figures

Figure 1: Disaster management organisation structure in Ghana	5
Figure 2: Scoring decision rule for the OECD DAC DRR policy marker and Rio marking system	7
Figure 3: Average marked DRR budget (\$ million, current prices)	9
Figure 4: Principal marked DRR budget by sector	9
Figure 5: Significant marked DRR budget by sector	10
Figure 6: Principal marked DRR budget by ministry	11
Figure 7: Significant marked DRR budget by ministry	13
Figure 8: ODA assistance to Ghana	17

List of tables

Table 1: Disasters and losses, 1987–2019	4
Table 2: Scope of the risk-sensitive budget review	7
Table 3: Ministries whose policy objectives had DRR elements	8
Table 4: Principal marked DRR budget across sectors (\$ million, current prices)	10
Table 5: Significant marked DRR budget across sectors (\$ million, current prices)	11
Table 6: Principal marked DRR budget across ministries (\$ million, current prices)	12
Table 7: Significant marked DRR budget across ministries (\$ million, current prices)	13
Table 8: Principal marked DRR budget across DRM categories (\$ million).....	14
Table 9: Principal marked DRM investments in the disaster cycle	14
Table 10: Principal marked DRR budget across DRM categories(\$ million, current prices)	15
Table 11: Significant marked DRR budget across DRM categories(\$ million, current prices)	15
Table 12: Significant DRR investments in the disaster cycle	16
Table 13: Significant marked DRR budget across DRM categories \$ million, current prices).....	16
Table A1: UNDRR’s RSBR: an overview.....	24
Table A2: Ministries in Ghana.....	25
Table A3: Principal marked DRR programmes and activities by ministries	26
Table A4: Significant marked DRR programmes and activities by ministry	28

List of boxes

Box 1: Official development assistance by DRM category	17
---	----

List of acronyms

CCA	Climate change adaptation
DRM	Disaster risk management
DRR	Disaster risk reduction
GDP	Gross domestic product
NADMO	National Disaster Management Organisation
NDMC	National Disaster Management Committee
ODA	Official development assistance
OECD DAC	Organisation for Economic Co-operation and Development Development Assistance Committee
RSBR	Risk-sensitive budget review

Currency equivalents

Year	US\$1 to GH¢
2013	2.3663
2014	3.2112
2015	3.8100
2016	4.2756
2017	4.5578
2018*	4.8200

*2018 exchange rate retrieved from Bank of Ghana Daily Interbank FX Rates, 31 December 2018

Acknowledgements

UNDRR wishes to express its profound appreciation for the support provided by the national authorities for disaster risk reduction/disaster risk management and by the United Nations Country Teams in the respective countries.

Coordinators: Jean-Marc Malambwe Kilolo (Economist) and Roberto Schiano Lomoriello (Associate Expert DRR Economics). Under the overall supervision of Katarina Mouakkid Soltesova (Risk Knowledge Programme Officer) and Luca Rossi (Deputy Chief of the Regional Office for Africa).

Analysts (authors): Belinda Kaimuri (Equatorial Guinea, Gabon, Gambia (The), Ghana, Kenya, São Tomé and Príncipe), Brais Álvarez Pereira and Tatiana Martinez Zavala (Angola, Guinea-Bissau), Elvis Mtonga (Botswana, Cameroon, Eswatini (The Kingdom of), Namibia, Zambia), Jean-Claude Koya (Côte d'Ivoire).

UNDRR particularly thanks the country experts and DRR specialists for their comments on and review of two draft versions of the analysis, specifically: Edson Fernando (Angola), Nkosiyo Moyo (Botswana), Mariatou Yap and Celestin Kegne (Cameroon), Dr. Touré Kader and Paul Kaman (Côte d'Ivoire), Gabriel Nguia Ayecaba (Equatorial Guinea), Russell Dlamini (Eswatini (The Kingdom of)), Hortense Togo (Gabon), Sanna Dahaba and Kawsu Barrow (Gambia (The)), Koranteng Abrokwah (Ghana), Alsau Sambu, Elisio Gomes Sá, Justino Fernandes and Domingos Gomes da Costa (Guinea-Bissau), Charles Owino (Kenya), Japheth Litenge (Namibia), Jean-Baptiste Nsengiyumva (Rwanda), Carlos Dias (São Tomé and Príncipe), Charles Msangi (Tanzania (United Republic of)), Lengandji Sikaona (Zambia).

Produced with support from Development Initiatives.

Published in January 2020.

Executive summary

This report provides an analysis of public investment planning for disaster risk reduction (DRR) in Ghana and provides information on the level of public investment in DRR in the country. This is done using a risk-sensitive budget review (RSBR) that applies the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) policy marker to the Ghana's domestically financed current and capital budgets. The RSBR analysis is done to evaluate and assess the extent to which the government has budgeted for DRR.

Key messages from the analysis are as follows

- Ministries, departments, and agencies have mostly classify and explicitly target DRR in their programmes and activities. From the RSBR analysis, 30 programmes related to DRR in eight out of 29 ministries under the central government for the period 2016 to 2018 were identified.
- During the three-year period, an average of \$263 million has been spent on DRR activities. This amounts to 2.0% of the national budget (and also represents 2.8% of total domestic national budget).
- The above marked DRR budget is shared almost equally between programmes that directly target DRR ("principal": \$119 million or 0.9% of the national budget) and programmes that indirectly target DRR ("significant": \$144 million or 1.1% of the national budget).
- The services and cross-sectoral sector holds the highest share of the principal marked DRR budget (66.1%), with only the Ministry of Interior undertaking disaster risk management activities.
- The social sector holds the highest share of significant marked DRR budget (70.6%), with only the Ministry of Health undertaking mainly Regional and District Health Services programmes.
- Ghana focuses on preparedness (half of the disaster budget); the remaining portion leans more towards response and relief over risk prevention and mitigation.
- Post-disaster activities (response and relief and reconstruction and rehabilitation) accounts for one third of total marked DRR budget. Besides, the country benefits from overseas development assistance in emergency response and reconstruction, rehabilitation and relief (a three-year average of \$3.38 million).

1. Introduction

In 2013, the European Union (EU) and the African, Caribbean and Pacific Group of States (ACP) signed an agreement focused on strengthening the ACP Member States' regional integration and inclusion in the global economy. Furthermore, the agreement addressed challenges related to climate change, agriculture and rural development.

Under this agreement, a programme titled "Building Disaster Resilience to Natural Hazards in sub-Saharan African Regions, Countries and Communities" was launched in July 2015. Its aim was to provide a comprehensive framework for disaster risk reduction (DRR) and disaster risk management (DRM), and their effective implementation across sub-Saharan Africa.

To support DRR in the region, the €80 million programme covered a period of five years and focused on five key results: strengthening regional DRR monitoring and coordination; enhancing DRR coordination, planning and policy advisory capacities of Regional Economic Communities; improving the capacity of national and Regional Climate Centres for weather and climate services; improving risk knowledge through disaster databases for future risk modelling; and developing disaster risk financing policies, instruments and strategies at regional, national and local levels.

The programme contributed to broader efforts aiming to assist African countries in building capacity in risk-sensitive investment planning and supporting initiatives to increase public investment in DRR. Furthermore, referring to the Sendai Framework for Disaster Risk Reduction (2015–2030), the programme sought to assist countries in estimating potential disaster impacts, including economic losses. Subsequently, it provided tools for countries to optimize their investment plans in order to address disaster risk and reduce future losses.

As part of the programme, UNDRR has developed risk-sensitive budget review reports for 16 countries in sub-Saharan Africa: Angola, Botswana, Cameroon, Côte d'Ivoire, Equatorial Guinea, Eswatini (The Kingdom of), Gabon, Gambia (The), Ghana, Guinea-Bissau, Kenya, Namibia, Rwanda, São Tomé and Príncipe, Tanzania (United Republic of) and Zambia.

The analysis uses the DRR policy marker, developed by the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC). The methodology has been used widely to provide information about DRR mainstreaming. Nevertheless, the tracking of planned and actual expenditures related to DRR is an area that is still evolving.

This report provides information on public investment planning for DRR in Ghana and presents the findings of a RSBR analysis of the country's budget from 2016 to 2018. The analysis which follows was presented and discussed during a series of country-level workshops – conducted in 2018, in each of the 16 countries – and additional feedback and input from country experts was sought to improve the analysis.

The report is organized as follows: the first section presents Ghana at a glance (key statistics). The second section explains the methodological basis, the OECD DAC DRR policy marker and its application by UNDRR across 16 country analyses. Findings from RSBR constitute the next principal section. The report concludes with a summary of the findings and recommendations for further action.

2. Ghana at a glance



POPULATION



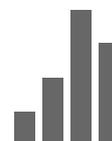
2018 estimate

29.6
(million people)

2050 projection

52
(million people)

GDP



2018 estimate

65.6
(billion \$)

2050 projection

414.3
(billion \$)

Area: 238,533 km²

Population density:
124.1 people/km²

Human Development Index: 0.6

Agriculture: 18.3% of GDP

Services: 57.2 % of GDP

Industry: 24.5% of GDP

Poverty rate
(\$1.90 per day): 13.3%

Sources: Data from: African Development Bank (2019); Central Intelligence Agency; International Institute for Applied Analysis; United Nations, Department of Economic and Social Affairs; Population Division (2019); United Nations Development Programme (2019); United Nations, Statistics Division; and World Bank.

Ghana is located in West Africa on the Gulf of Guinea in the Atlantic Ocean. The population was estimated at 29.6 million people in 2018 and is expected to grow to 52.0 million people by 2050. With an area of 238,533 km², this translates to about 124.1 people per km², making the country densely populated. Over half of the population (55%) live in urban areas.

Ghana is mainly dependent on the tertiary sector, which accounts for 57.2% of gross domestic product (GDP). The agriculture sector accounts for 18.3% of GDP and employs 40% of the population. The country also exports gold, oil and cocoa. In 2018, Ghana's GDP reached \$65.6 billion and was projected to grow to \$414.3 billion by 2050.

Fiscal revenues amount to over 13% of GDP and Ghana's government budget has historically shown a large deficit, with an average -7.96% of GDP from 2004 to 2017. Public investment in Ghana has decreased from a record high of 12.2% of GDP in 2004, to 6.2% in 2011.

Ghana's GDP per capita was \$1,517.50 in 2016, with a Human Development Index of 0.596. In that year, 13.3% of the population were estimated to be living below the poverty line (earning less than \$1.90 per day in 2011 purchasing power parity), a substantial decrease from 2005, when poverty affected 24.5% of the population.

3. Disaster risk reduction in Ghana

3.1. Past disasters and losses

Ghana has been exposed to various natural disasters over the years, such as floods, droughts, landslides, pest and disease outbreaks, and epidemics, which affect the people and their assets annually. Epidemics, floods and droughts are the most common natural hazards in Ghana. Other natural hazards experienced include storms, wildfires and seismic hazards (Table 1). When adding information from DesInventar, wildfires have also caused a high number of deaths. Storms destroyed and damaged the highest number of houses, followed by floods.

Table 1: Disasters and losses, 1987–2019

Hazards	Occurrence	Deaths	Affected	Damage ('000 \$)
Drought	3	0	12,512,000	100
Earthquake	1	22	7,630	0
Epidemic	22	1,274	91,471	0
Flood	23	519	4,995,149	120,200
Storm	1	20	12	0
Wildfire	1	4	1,500	0

Source: EM-DAT: The International Disaster Database.

Epidemics have killed the highest number of people, mostly as a result of meningitis. Ghana also faces other infectious diseases, such as cholera, caused mostly by poor sanitation, yellow fever and Ebola.

Floods have killed a high number of people in Ghana. Between 1991 and 2011, the country experienced a total of seven major flood events, with the 1991 floods affecting the highest number of people (2 million).¹ In 2010, floods in the area around the White Volta basin led to loss of life and property. Urban floods also occur regularly, especially in major cities such as the capital Accra. Floods have caused \$120 million in damages.

Droughts in Ghana have affected the highest number of people. They mainly occur along the Northern Savannah belt, an area that lies within the inter-tropical convergence zone. Occurrence of drought is defined by a reduction in the amount and frequency of rainfall and reduction in stream flow from the Volta river system, which in turn depends on rainfall and discharge from neighbouring countries.

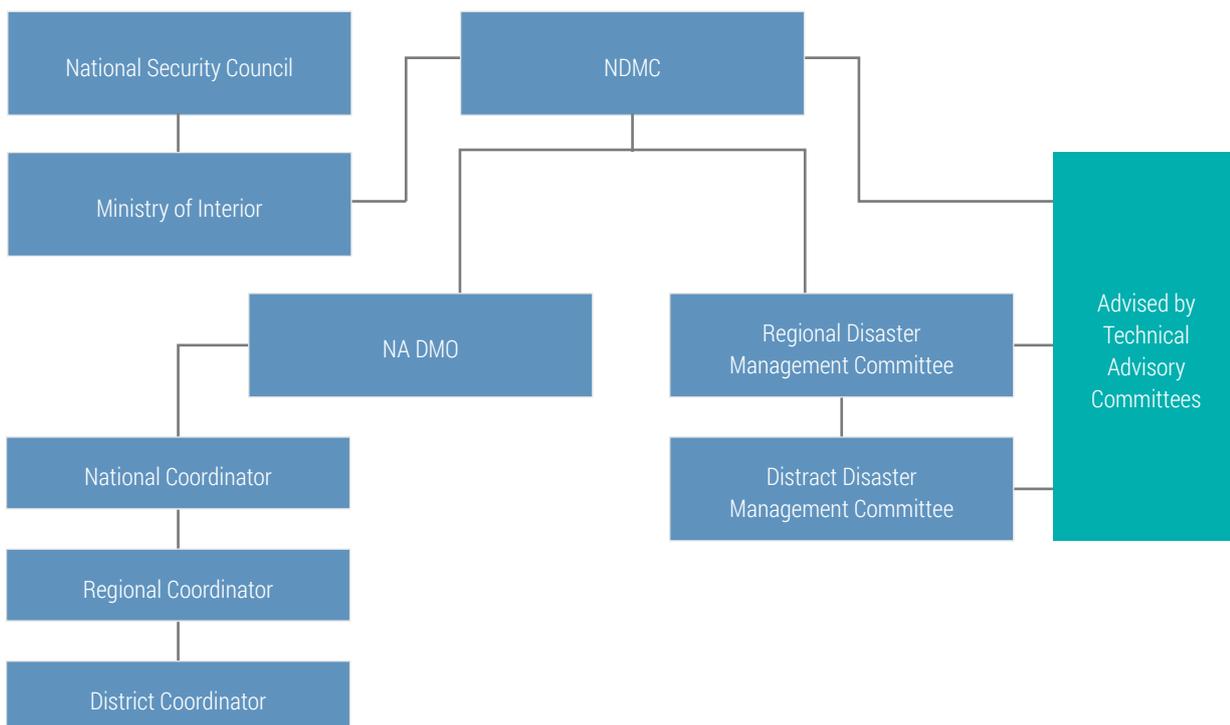
¹ Okyere et. al (2012).

3.2. Disaster risk governance

The key institution mandated to work in DRR and DRM is the National Disaster Management Organisation (NADMO). NADMO is governed by the National Security Council, which determines the policies for NADMO and is chaired by the president. NADMO's main responsibility is to manage disasters by coordinating government resources and developing communities' capacity to effectively respond to disasters and improve livelihoods through social mobilization, poverty reduction and income generation activities.

The National Disaster Management Committee (NDMC) is the advocating body for NADMO. The NDMC is chaired by the Ministry of Interior and its main role is to implement national policies on disasters. Its members include: the national coordinator, who acts as the secretary to the NDMC, and representatives from the Ministry of Finance, Ministry of Health, Ministry of Employment and Social Welfare, Ministry of Information, Ministry of Local Government and Rural Development, Ministry of Defence, Ministry of Environment, Science, Technology and Innovation, Ministry of Transport, Ministry of Communications, and National Development Planning Commission. The NDMC also coordinates regional and district disaster management plans and activities; collects and preserves data on disasters in the country; investigates, reports on and analyses the nature of hazards, vulnerability and risk situations; and ensures the operational readiness of regional and district disaster management committees (Figure 1).

Figure 1: Disaster management organisation structure in Ghana



Source: National Disaster Management Organisation.

The National Disaster Management Organisation Act (Act 517) outlines the establishment and role of NADMO. It also authorizes the establishment of disaster management committees at national, regional and district levels. A revised bill has been tabled in Parliament that is expected to:

- Refine NADMO's role, its functions and inter alia coordination and operations;
- Establish a council as governing body of NADMO; and
- Establish a National Disaster Management Fund.

4. Risk-sensitive budget review

4.1. Methodology

The OECD DAC DRR policy marker is a quantitative tool used to identify spending activities that target DRR as a policy objective. An activity should be classified as linked to DRR if it promotes the targets of the Sendai Framework for Disaster Risk Reduction 2015–2030 to achieve “substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries”.²

According to the OECD DAC policy marker document,³ a DRR-related activity focuses on preventing new risks, and/or reducing existing disaster risks and/or strengthening resilience through “the implementation of ... measures that prevent and reduce hazard exposure and vulnerability to disaster and increase preparedness for response and recovery with the explicit purpose of increasing human security, well-being, quality of life, resilience, and sustainable development”.

In addition, a DRR-related activity must meet at least one of the four priorities for action of the Sendai Framework,⁴ namely: (1) understanding disaster risk; (2) strengthening disaster risk governance to manage disaster risk; (3) investing in DRR for resilience; or (4) enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.⁵

The risk-sensitive budget review (RSBR) is simply the application of the OECD DAC DRR policy marker to country budgets to identify and mark public expenditures that have a DRR objective. By doing this, the extent to which the government has planned or invested implicitly or explicitly in DRR can be identified. Spending activities targeting DRR are screened, marked and weighted as follows:

- Activities are marked as “principal” (marked as 2) when DRR is their principal objective and it is fundamental in the design of and motivation for the activity. These budget activities are then weighted as 100% of the planned or spent allocations which underpin them.
- Activities are marked as “significant” (marked as 1) when their DRR objective is explicitly stated but is not a fundamental motivation for undertaking and designing the activity. These budget activities are weighted as 40% of the planned or spent allocations which underpin them.
- Activities are not marked (marked as 0) when they have no DRR-related objective. These budget activities are weighted as 0% of the planned or spent allocations which underpin them.⁶

The total of principal and significant marked budget allocations is counted as DRR-focused planned or spent budgets or, put simply, DRR investments. Figure 2 illustrates the marking and scoring procedure for the OECD DRR policy marker and how funding allocated to DRR objectives is accounted for.

2 UNDRR (2015), p.12.

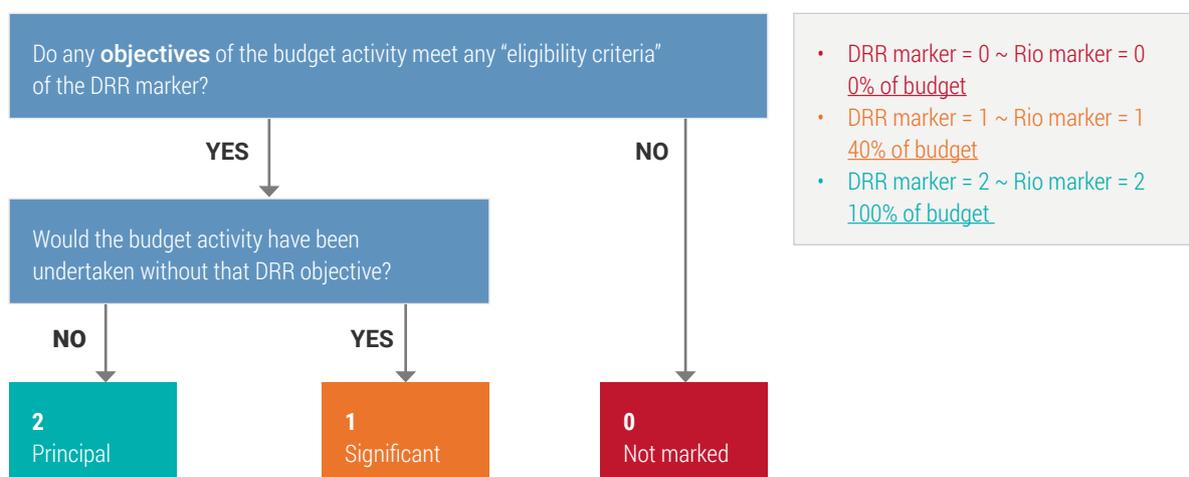
3 OECD (2017), p.8.

4 UNDRR (2015), p.14.

5 From this, a DRR-related activity can be located along the disaster management cycle: pre-disaster (prevention, mitigation or preparedness) or post-disaster activities (response or mitigation).

6 Petri (2016); European Commission (2016).

Figure 2: Scoring decision rule for the OECD DAC DRR policy marker and Rio marking system



Source: OECD (2017).

4.2. Scope of the analysis

The RSBR explored budgets presented by ministries, departments and agencies (MDAs) and the various programmes and activities budgeted for under the central government for the financial periods 2016 to 2018. Planned budgets funded by the government's own resources were considered for the analysis; external resources were not considered. The main documents used were programme-based budgets published by the Ghana Ministry of Finance in electronic format.⁷ Out of the 29 ministries reviewed,⁸ only eight ministries had principal and significant DRR policy objectives. Table 2 below shows the scope of RSBR and the specific sectors and ministries that were found to have a DRR policy objective.

Table 2: Scope of the risk-sensitive budget review

Year plan	2016–2018
Coverage	<ul style="list-style-type: none"> • Economic sector <ul style="list-style-type: none"> - Ministry of Food and Agriculture - Ministry of Environment Science, Technology and Innovation - Ministry of Lands and Natural Resources • Social sector <ul style="list-style-type: none"> - Ministry of Health • Infrastructure sector <ul style="list-style-type: none"> - Ministry of Works and Housing - Ministry of Communications • Public safety sector <ul style="list-style-type: none"> - Ministry of Interior • Administration sector <ul style="list-style-type: none"> - Ministry of Information
Planned budget or executed budget	Planned
Target hazards	Droughts, floods, storms, fires, epidemics, pest and disease outbreaks

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

⁷ www.mofep.gov.gh.

⁸ See list of Ministries in Ghana in Table A2 (Annex1).

Led by the OECD DAC DRR policy marker, Rio marking system and the Sendai Framework, the analysis found 30 programmes that implicitly and explicitly target DRR in eight ministries of the central government for the fiscal years 2016 to 2018. Table 3 shows the marked DRR programmes under the eight ministries. The largest number of DRR programmes were housed under the Ministry of Food and Agriculture (9 programmes). The smallest number of programmes were housed under the Ministry of Interior and Ministry of Information and Media Relations (1 programme each).

Table 3: Ministries whose policy objectives had DRR elements

Ministries	Policy objectives
Ministry of Food and Agriculture	<ul style="list-style-type: none"> • Food Security and Emergency Preparedness • Promote seed and planting material development • Promote the development of selected staple and horticultural crops • Improve institutional coordination for agriculture development • Increase access to extension services and re-orient agriculture education • Promote livestock and poultry development for food security and job creation • Develop climate-resilient agriculture and food security systems • Promote agriculture mechanization • Strengthen processes towards achieving food sovereignty
Ministry of Environment Science, Technology and Innovation	<ul style="list-style-type: none"> • Enhance capacity to adapt to climate change impacts • Strengthen the institutional and regulatory framework for management of natural resources • Promote spatially integrated and orderly development of human settlements
Ministry of Land and Natural Resources	<ul style="list-style-type: none"> • Strengthen institutional and regulatory frameworks for management of natural resources • Promote sustainable use of forest and wildlife resources • Reverse forest and land degradation • Maintain and enhance ecological integrity of protected areas • Promote sustainable land management through survey mapping • Promote sustainable extraction and use of mineral resources through geoscience information and sciences
Ministry of Health	<ul style="list-style-type: none"> • Ensure sustainable equitable and easily accessible healthcare services • Improve quality of health service delivery including mental health • Enhance efficiency in governance and management of the health system
Ministry of Works and Housing	<ul style="list-style-type: none"> • Enhance capacity to mitigate impact of natural disaster, risk and vulnerability via national flood control programmes • Establish a framework to coordinate human settlement development • Increase resilience of coastal settlements and infrastructure • Improve investment in DRR and resilience • Promote resilient urban infrastructure development • Increase access to safe, secure and affordable shelter
Ministry of Communications	<ul style="list-style-type: none"> • Promote effective disaster prevention and mitigation via meteorological services
Ministry of Interior	<ul style="list-style-type: none"> • Improve internal security for protection of life and property under conflict and disaster management activities
Ministry of Information and Media Relations	<ul style="list-style-type: none"> • Improve transparency and access to public information to enhance mitigation the impacts of climate variability and change

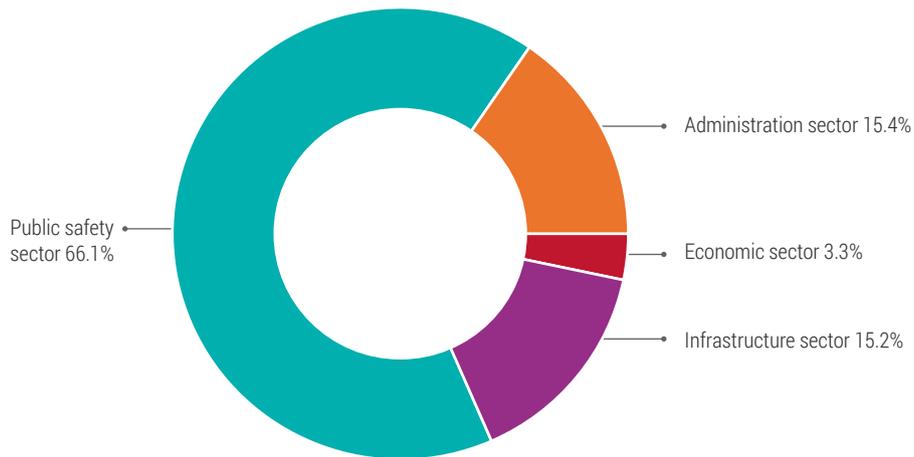
Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

4.3. Principal and significant marked DRR budgets

National DRR budget by sectors – Principal and significant

The marked DRR budget is 2.0% of the total national budget (2.8% of domestic public investment budget),⁹ at an average of \$263 million. This budget is almost equally shared between principal (\$119 million, 0.9% of national budget) and significant (\$144 million, 1.1% of national budget).

Figure 3: Average marked DRR budget (\$ million, current prices)



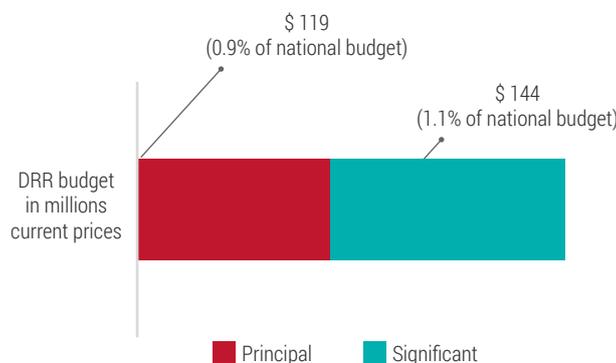
Source: Author’s calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Marked DRR budget by sector

Principal marked DRR budget

Considering the aggregated sectors described in Table 4, Figure 4 shows that the public safety sector has the highest share of DRR budget marked with a principal objective (average: 66.1%), followed by the administration sector (average 15.4%) and infrastructure sector (average: 15.2%). The economic sector (3.3%) has the lowest share of principal marked DRR budget.

Figure 4: Principal marked DRR budget by sector



Source: Author’s calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

⁹ Total national budget is inclusive of both domestic and donor funds.

Table 4 presents the principal marked DRR budget by sector. The period 2017 had the highest total budget set aside for DRR programmes, with programmes for all sectors except the social sector.

Table 4: Principal marked DRR budget across sectors (\$ million, current prices)

Sector	2016	2017	2018	Total planned budget	Three-year average budget	%
Public safety	62	88	87	237	79	66.1%
Administration	–	28	28	55	18	15.4%
Infrastructure	18	19	18	54	18	15.2%
Economic	0	7	4	12	4	3.3%
Social	–	–	–	–	–	0.0%
Total marked DRR budget	81	141	136	358	119	100%
Total national budget	11,419	13,694	14,277	39,389	13,130	
Share of national budget					0.9%	

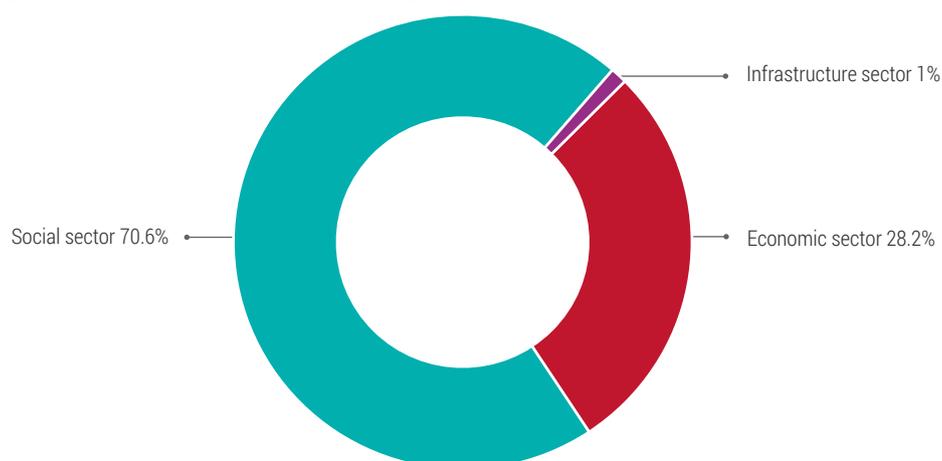
Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

The principal marked DRR budget amounts to \$119 million on average, which is approximately 0.9% of the averaged total national budget for the three-year period from 2016 to 2018.

Significant marked DRR budget

Figure 5 depicts the significant marked DRR budget for the five sectors. The social sector has the largest share (70.6%), followed by the economic sector (28.2%). These two sectors have the greatest responsibility for DRR, accounting for 98.8% of the total significant marked DRR budget. The infrastructure sector has the lowest share, with 1.2%. Interestingly, the public safety sector has no share of significant marked DRR budget. This is attributed to the MDAs under this sector: NADMO and the Ghana Fire Service.

Figure 5: Significant marked DRR budget by sector



Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Table 5: Significant marked DRR budget across sectors (\$ million, current prices)

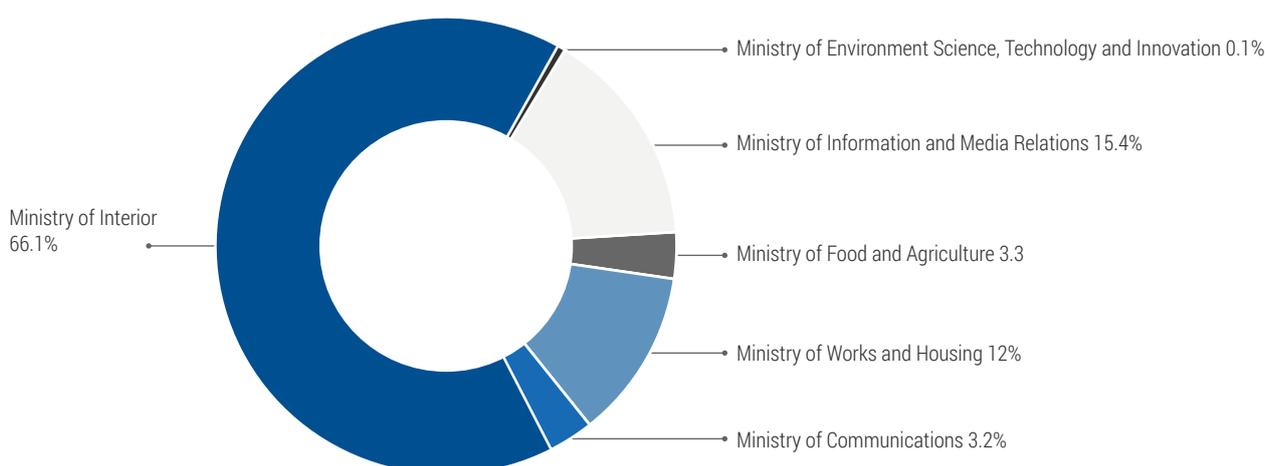
Sector	2012	2017	2018	Total planned budget	Three-year average budget	%
Social	89	112	1,065	306	102	70.6
Economic	32	37	53	122	41	28.2
Infrastructure	1	2	2	5	2	1.2
Public safety	–	–	–	–	–	0.0
Administration	–	–	–	–	–	0.0
Total marked DRR budget	122	151	161	434	144	100
Total national budget	11,419	13,694	14,277	39,389	13,130	
Share of national budget					1.1%	

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Marked DRR budget by ministry

Principal marked DRR budget

Figure 6 and Table 6 disaggregate the principal marked DRR budget by ministry. The Ministry of Interior (66.1%) and Ministry of Information and Media Relations (15.4%) have the greatest shares. They are followed by the Ministry of Works and Housing (12.0%), the Ministry of Food and Agriculture (3.3%) and the Ministry of Communications (3.2%). The lowest share is for the Ministry of Environment Science, Technology and Innovation (0.01%). Table A3 (Annex 1) shows the various programmes under these ministries with principal marked DRR objectives.

Figure 6: Principal marked DRR budget by ministry

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Overall, these programmes and principal DRR activities in six ministries show both a commitment of funding and the availability of funds for disaster risk. The programmes focus on drought, flood and multi-hazard disaster events, which make them robust when called into action when a hazard strikes.

Table 6 presents the principal marked DRR budget across ministries. For the last fiscal years, on average the Ministry of Interior has had the largest allocation of the principal marked DRR budget.

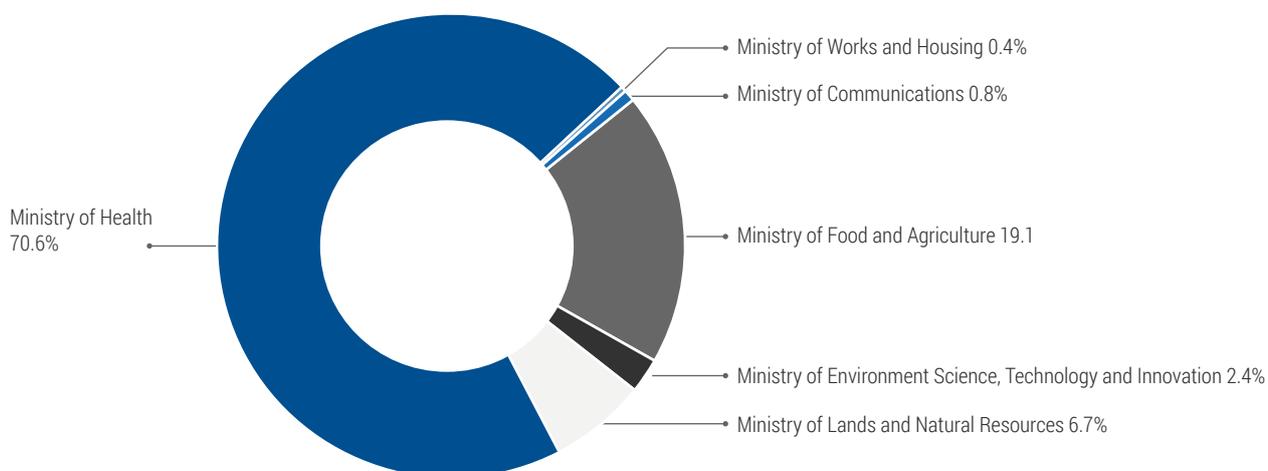
Table 6: Principal marked DRR budget across ministries (\$ million, current prices)

Sectors and ministries	2016	2017	2018	Total planned budget	Three-year average budget	%
Public Safety Sector	62	88	87	237	79	66.1
Ministry of Interior	62	88	87	237	79	66.1
Administration Sector	–	28	28	55	18	15.4
Ministry of Information and Media Relations	–	28	28	55	18	15.4
Infrastructure Sector	18	19	18	54	18	15.2
Ministry of Works and Housing	18	16	9	43	14	12.0
Ministry of Communications	0.0	2.5	8.9	11	4	3.2
Economic Sector	0	7	4	12	4	3.3
Ministry of Food and Agriculture	0.3	7	4	12	4	3.3
Ministry of Environment Science, Technology and Innovation	0.00	0.00	0.03	0.03	0.01	0.0
Total marked DRR budget	81	141	136	358	119	100
Total national budget	11,419	13,694	14,277	39,389	13,130	
Share of national budget					0.9%	

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Significant marked DRR budget

Figure 7 portrays the share of different ministries in DRR budgets marked as significant. Three ministries account for 96.4% for most of the significant marked DRR budget: the Ministry of Health (70.6%), Ministry of Food and Agriculture (19.1%) and Ministry of Lands and Natural Resources (6.7%). The other ministries account for less than 3.6%: the Ministry of Environment Science, Technology and Innovation, Ministry of Communications and Ministry of Works and Housing. Table A4 (Annex 1) shows the various programmes under these ministries with significant marked DRR objectives.

Figure 7: Significant marked DRR budget by ministry

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Table 7 presents the significant marked DRR budget by sector/ministry. The Ministry of Health and Ministry of Food and Agriculture plan a large share of the significant marked DRR budget.

Table 7: Significant marked DRR budget across ministries (\$ million, current prices)

Sectors and ministries	2016	2017	2018	Total planned budget	Three-year average budget	%
Social Sector	89	112	106	306	102	70.6%
Ministry of Health	89	112	106	306	102	70.6%
Economic Sector	32	37	53	122	41	28.2%
Ministry of Food and Agriculture	24	25	33	83	28	19.1%
Ministry of Lands and Natural Resources	6	10	13	29	10	6.7%
Ministry of Environment Science, Technology and Innovation	2	2	7	11	4	2.4%
Infrastructure	1	2	2	5	2	1.2%
Ministry of Communications	1	1	2	3	1	0.8%
Ministry of Works and Housing	0.4	0.6	0.6	2	1	0.4%
Total marked DRR budget	122	151	161	434	144	100
Total national budget	11,419	13,694	14,277	39,389	13,130	
Share of national budget					1.1%	

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

4.4. Marked DRR budget across the DRM cycle

In addition to the budget being categorized for different project activities, and activities being categorized as principal or significant, identified DRR investments were classified into four distinct categories of DRR: risk prevention and mitigation, preparedness, response and relief, and reconstruction and recovery.

Principal objective by DRR category

Aggregate results

Table 8 shows the principal marked DRR budget in the four key DRM categories. The share of response and relief (68.7%) is comparable to risk prevention and mitigation (28.0%). This is in line with the country's efforts in enhancing response to and reducing and mitigating the effects of disaster risk events. Preparedness, with an average of 3.1% of the total principal marked DRR budget, shows the small amount of interest paid to being prepared for disaster risk events. The least important category under this review is reconstruction and recovery, at 0.2% of the total principal objective marked DRR budget.

Table 8: Principal marked DRR budget across DRM categories (\$ million)

Principal marked DRR budget allocations by risk category	2016	2017	2018	Total planned budget	Three-year average budget	%
Response and relief	68	89	88	246	82	68.7
Risk prevention and mitigation	12	45	44	100	33	28.0
Preparedness	0	7	4	11	4	3.1
Reconstruction and recovery	0.33	0.04	0.21	1	0.2	0.2
Total marked DRR budget	81	141	136	358	119	100

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Table 9 shows Ghana as having 68.8% of the principal marked DRR budget under post-disaster activities.

Table 9: Principal marked DRM investments in the disaster cycle

	Pre-disaster activities (%)		Post-disaster activities (%)		Values in \$ millions, current prices
	Risk prevention and mitigation	Preparedness	Response and relief	Reconstruction and recovery	
2016–2018	28.1	3.1	68.6	0.2	358
Three-year average	31.2		68.8		119

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Results across ministries

Table 10 describes the principal marked DRR budget according to the four key DRR categories for the past three fiscal years. Key findings are the following:

- 2 ministries plan for response and relief: the Ministry of Interior (66.1%) and Ministry of Works and Housing (2.5%).
- 5 ministries plan for risk prevention and mitigation: the Ministry of Information and Media Relations (15.4%), Ministry of Works and Housing (9.3%), Ministry of Communications (3.2%), Ministry of Food and Agriculture (0.1%) and Ministry of Environment Science, Technology and Innovation (0.01%).
- 1 ministry contributes to preparedness: the Ministry of Food and Agriculture (3.2%).

The least important category under this review is reconstruction and recovery, at 0.2% of the total principal objective marked DRR budget under the Ministry of Works and Housing.

Table 10: Principal marked DRR budget across DRM categories
(\$ million, current prices)

Principal marked DRR budget allocations by risk category	2016	2017	2018	Total planned budget	Three-year average budget	%
Response and relief	68	89	88	246	82	68.6
Ministry of Interior	62	88	87	237	79	66.1
Ministry of Works and Housing	6	2	1	9	3	2.5
Risk prevention and mitigation	12	45	44	100	33	28.0
Ministry of Information and Media Relations	–	28	28	55	18	15.4
Ministry of Works and Housing	12	14	7	33	11	9.3
Ministry of Communications	0	2	9	11	4	3.2
Ministry of Food and Agriculture	0.01	0.22	0.27	177	44	0.1
Ministry of Environment Science, Technology and Innovation	0.00	0.00	0.03	109	27	0.1
Preparedness	0	7	4	11	4	3.2
Ministry of Food and Agriculture	0	7	4	11	4	3.2
Reconstruction and recovery	0.33	0.04	0.21	0.6	0.2	0.2
Ministry of Works and Housing	0.33	0.04	0.21	0.6	0.2	0.2
Total marked DRR budget	81	141	136	358	119	100

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Significant objective by DRM category

Aggregate results

Table 11 describes the significant marked DRR budget across different categories. Preparedness (87.8%) has the largest share. This is in line with the country's efforts to ensure healthcare is available to all citizens, thus making strides in enhancing preparedness. Next, at a comparably lower share, are risk prevention and mitigation (10.4%) and reconstruction and recovery (1.8%). The least important category under this review is response and relief (0.0%).

Table 11: Significant marked DRR budget across DRM categories
(\$ million, current prices)

Significant marked DRR budget allocations by risk category	2016	2017	2018	Total planned budget	Three-year average budget	%
Preparedness	112	137	132	381	127	87.8
Risk prevention and mitigation	10	12	23	45	15	10.4
Reconstruction and recovery	–	2	6	8	3	1.8
Response and relief	–	–	–	–	–	0.0
Total marked DRR budget	122	151	161	434	144	100

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Table 12 shows Ghana as having 99.7% of significant marked DRR budget under pre-disaster activities.

Table 12: Significant DRR investments in the disaster cycle

Period	Pre-disaster activities		Post-disaster activities (%)		Values in \$ millions, current prices
	Risk prevention and mitigation	Preparedness	Response and relief	Reconstruction and recovery	
2016–2018	10.4	87.8	0.0	1.8	434
Three-year average	98.2		1.8		144

Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Results across ministries

Looking at DRR categories by ministry, Table 13 shows the following key results:

- Preparedness at 87.8%, with the Ministry of Health (70.6%) and Ministry of Food and Agriculture (17.2%).
- Risk prevention and mitigation (10.4%) is made up of four ministries: the Ministry of Lands and Natural Resources (4.9%), and Ministry of Environment Science, Technology and Innovation (2.4%), Ministry of Food and Agriculture (1.9%), Ministry of Communication (0.8%) and Ministry of Works and Housing (0.4%).
- Reconstruction and recovery at 1.8%, with only the Ministry of Lands and Natural Resources.

The least important category under this review is response and relief, as there were no significant DRR programmes and activities). This is a good sign in mainstreaming response and relief efforts directly related to disaster risk.

Table 13: Significant marked DRR budget across DRM categories (\$ million, current prices)

Significant marked DRR budget allocations by risk category	2016	2017	2018	Total planned budget	Three-year average budget	%
Preparedness	112	137	132	381	127	87.8
Ministry of Health	89	112	106	306	102	70.6
Ministry of Food and Agriculture	23	25	27	75	25	17.2
Risk prevention and mitigation	10	12	23	45	15	10.4
Ministry of Lands and Natural Resources	6	8	8	21	7	4.9
Ministry of Environment Science, Technology and Innovation	2	2	7	11	4	2.4
Ministry of Food and Agriculture	1	0	6	8	3	1.9
Ministry of Communications	1	1	2	3	1	0.8
Ministry of Works and Housing	0	1	1	2	1	0.4
Reconstruction and recovery	–	2	6	8	3	1.8
Ministry of Lands and Natural Resources	–	2	6	8	3	1.8
Response and relief	–	–	–	–	–	0.0
Total marked DRR budget	122	151	161	434	144	100

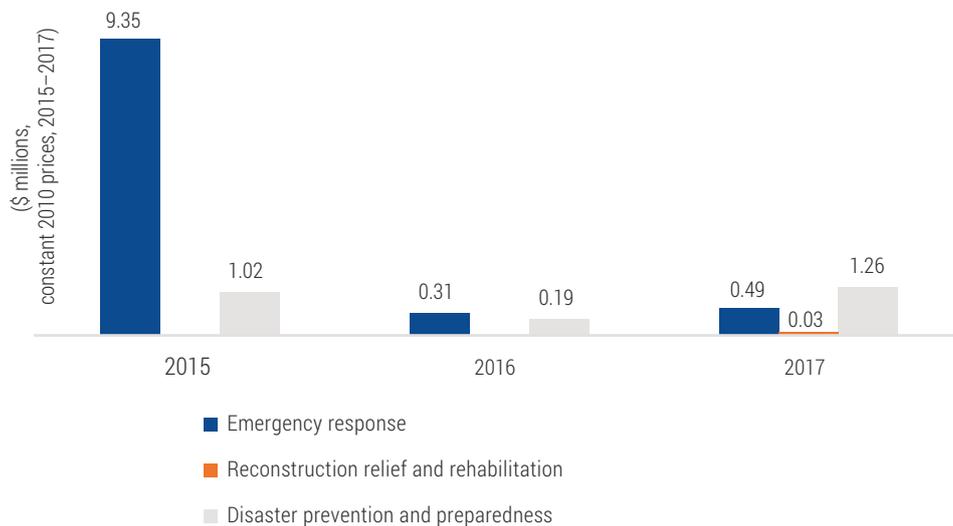
Source: Author's calculations based on 2016–2019 budgets, Ghana Ministry of Finance and Economic Planning.

Box 1: Official development assistance by DRM category

A key finding from the RSBR is that most of the marked DRR budget goes to pre-disaster activities over post-disaster activities. Also, most of the post-disaster activities are carried out by humanitarian actors. This echoes Van Aalst et al. (2013), which showed out of the total overseas development assistance (ODA) dedicated to DRR, 69.9% was used for emergency response activities, 24.8% for reconstruction activities (post-disaster) and 3.6% for disaster prevention and preparedness (pre-disaster investments).

The figure below shows ODA assistance to Ghana between 2015 and 2017 and its allocation by DRM category. An average of \$3.38 million has been used for post-disaster management activities (emergency response and reconstruction, rehabilitation and relief). This assistance could be why Ghana has focused on pre-disaster activities as the country has humanitarian efforts to cover pre-disaster management activities.

Figure 8: ODA assistance to Ghana



Source: ODA data, OECD.

5. Conclusion and recommendations

UNDRR has partnered with the EU, AU and ACP to deliver a programme to build the capacity of APC Member States in risk-sensitive investment planning and to increase public investment in DRR. The intention is to assist the countries to align their strategies with the targets outlined in the Sendai Framework.

This report contributes to this deliverable with the RSB analysis of Ghana's national budgets using the OECD DAC DRR marker and Rio marking system to determine marked DRR budgets' contribution to the DRM cycle.

The following conclusions were made about the state of public investment planning for DRR:

- DRM is explicitly documented in some programmes and activities of the national budget, especially in relation to flood hazards. Programmes have been broken down into specific deliverables that make marking with the OECD DAC policy marker possible.
 - There is a specific allocation of planned public investment budgets to disaster prevention and mitigation operations and activities under the Ministry of Interior.
- By applying the OECD DAC DRR policy marker, 30 programmes are found that relate to DRR and DRM in eight out of 29 ministries of the central government in the national budgets from 2016 to 2018.
- Between 2016 and 2018, DRR investments represented 2.0% of the total national budget (about \$39,389 million; average for the three-year period: \$13,130 million). Comparing domestic resources only, the total marked DRR budget represents 2.8% of the total domestic national budget.
 - Marked budget that directly targets DRR – principal Marked DRR budget – averages \$119 million, and comprises close to half of the allocation, at 45% of the total marked DRR budget. This is equivalent to 0.9% of the total national budget.
 - Budget for project activities that indirectly targets DRR – significant marked DRR budget – averages \$144 million and comprises over half of the allocation, at 55% of the total marked DRR budget. This is equivalent to 1.1% of the total national budget.
- The principal marked DRR budget is concentrated in one ministry, the Ministry of Interior (66.1%) out of six ministries. Similarly, most of the significant marked DRR budget is allocated to the Ministry of Health out of six ministries.
- Reviewing the disaster risk categories of the DRM cycle, the marked DRR budget is heavily focused on only one risk category: preparedness.
 - Nearly all the principal marked DRR budget (68.6%) is allocated to response and relief activities, while most of the significant marked DRR budget (87.8%) is allocated to preparedness activities.
- Thus, the national budget for the 2016–2018 period allocates more funds to pre-disaster activities than to post-disaster management ones.
- There is heavy reliance on donor funds for both post-disaster management and pre-disaster activities. During the three-year period from 2015 to 2017, Ghana received more funds in ODA funds (\$3.38 million) for emergency response (post-disaster management).

Recommendations

Given these conclusions, this report further contributes to the DRR body of knowledge in Ghana and will aid in the ongoing mainstreaming of DRR in the budget planning process. We recommend:

- Increasing the DRR budget for risk prevention and mitigation to align with the Sendai Framework;
- Applying the OECD DAC DRR policy marker to detailed planned budgets to account for programmes that are not apparent from the budgeted programme title; and
- Classifying DRR planned budgets according to the four key DRM categories: risk prevention and mitigation, preparedness, response and relief, and reconstruction and recovery.

References

African Development Bank (2019). Countries.

Available at <https://www.afdb.org/en/countries>. Accessed on 15 January 2020.

Bank of Ghana (2017). *Annual Report 2017*. Available at https://www.bog.gov.gh/privatecontent/Publications/Annual_Reports/Annual%20Report%202017%2012th%20July.pdf.

Central Intelligence Agency. The World Factbook. Available at <https://www.cia.gov/library/publications/the-world-factbook/geos/za.html>. Accessed on 15 January 2020.

Ghana, Ministry of Finance and Economic Planning (2017). *The Budget Statement and Economic Policy of the Government of Ghana for the 2017 Financial Year*. Available at <https://www.mofep.gov.gh/sites/default/files/budget-statements/2017-Budget-Statement.pdf>.

Ghana, Ministry of Finance and Economic Planning (2017). *The Budget Statement and Economic Policy of the Government of Ghana for the 2018 Financial Year*. Available at <https://www.mofep.gov.gh/sites/default/files/budget-statements/2018-Budget-Statement-and-Economic-Policy.pdf>.

Ghana, Ministry of Finance and Economic Planning (2018). *The Budget Statement and Economic Policy of the Government of Ghana for the 2019 Financial Year*. Available at https://www.mofep.gov.gh/sites/default/files/budget-statements/2019-Budget-Statement-and-Economic-Policy_.pdf.

Ghana, Ministry of Finance and Economic Planning (2016). *2016 Programme Based Budgeting Estimates*. Available at: <https://www.mofep.gov.gh/publications/programme-based-budgeting/2016>.

Ghana, Ministry of Finance and Economic Planning (2017). *2017 Programme Based Budgeting Estimates*. Available at <https://www.mofep.gov.gh/publications/programme-based-budgeting/2017>.

Ghana, Ministry of Finance and Economic Planning (2018). *2018 Programme Based Budgeting Estimates*. Available at <https://www.mofep.gov.gh/publications/programme-based-budgeting/2018>.

International Institute for Applied Analysis. Shared Socioeconomic Pathways Database.

Available at <https://tntcat.iiasa.ac.at/SspDb/dsd?Action=htmlpage&page=welcome>.

Accessed on 15 January 2020.

Organisation for Economic Co-operation and Development (OECD) (2016). *Converged Statistical Reporting Directives for the Creditor Reporting System (CRS) and the Annual DAC Questionnaire*.

Available at [https://www.oecd.org/dac/stats/DCD-DAC\(2016\)3-ADD2-FINAL%20-ENG.pdf](https://www.oecd.org/dac/stats/DCD-DAC(2016)3-ADD2-FINAL%20-ENG.pdf).

OCED Development Assistance Committee (DAC). Data: Net ODA.

Available at <https://data.oecd.org/oda/net-oda.htm>.

OECD (2017). *Proposal to Establish a Policy Marker for Disaster Risk Reduction (DRR) in the OECD DAC Creditor Reporting System (CRS)*. Available at [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC/STAT\(2017\)26&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC/STAT(2017)26&docLanguage=En).

Petri, H. (2016). Short guide to the use of Rio markers, 17 March 2017. European Commission, Capacity4dev. Available at <https://europa.eu/capacity4dev/public-environment-climate/minisite/tools-and-methods/short-guide-use-rio-markers>.

United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019 database. Available at <https://population.un.org/wpp/DataQuery/>. Accessed on 15 January 2020.

United Nations Development Programme (2019). Human Development Index (HDI). Available at <http://hdr.undp.org/en/content/human-development-index-hdi>.

United Nations Office for Disaster Risk Reduction (UNDRR) (2015). *Sendai Framework for Disaster Risk Reduction 2015–2030*. Available at: https://www.UNDRR.org/files/43291_sendaiframefordrren.pdf

UNDRR and CIMA (2018). Ghana Disaster Risk Profile. Available at <http://africa.cimafoundation.org/documents/869>.

United Nations, Statistics Division, Department of Economic and Social Affairs (2018). Demographic and Social Statistics. Available at https://unstats.un.org/unsd/demographic-social/products/dyb/dyb_2018/. Accessed on 15 January 2020.

Van Aalst, M., Kellett, J., Pichon, F. and Mitchell, T. (2013). *Incentives in Disaster Risk Management and Humanitarian Response*. Available at http://siteresources.worldbank.org/EXTNWDR2013/Resources/8258024-1352909193861/8936935-1356011448215/8986901-1380568255405/WDR14_bn_Incentives_in_disaster_risk_management_vanAalst.pdf.

World Bank. Data: GDP growth (annual %). Available at <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>. Accessed on 15 January 2020.

World Bank. Data: GDP per capita (current US\$). Available at <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>. Accessed on 15 January 2020.

Annex 1: Risk-sensitive budget review methodology

UNDRR's application of the OECD DAC DRR policy marker: an overview

Performing the RSBR for each country involved several steps, the first one being to access programme-based budgets.¹⁰ For most countries (13 out of 16), the budget information was readily available online (generally through the Ministry of Finance web portal).¹¹ Budget information from Cameroon and Côte d'Ivoire was shared by some participants during national DRR workshops organized by UNDRR in Yaoundé and Abidjan, respectively, both in 2018. In the case of Guinea-Bissau, consultants managed to gain access through their connection with the Ministry of Finance. For a more detailed methodological note on UNDRR's application of the RSBR, please consult the companion document, *A methodological guidance note on risk-sensitive budget reviews*.

Once the budget data were secured, the OECD policy marker methodology was applied to identify DRR components from the budgets. This involved reviewing the most recent national budgets available (see Table A1) in several steps:

Step 1: Review of overall performance of each ministry/institution in its respective programmes.

Step 2: Review of targets and policy outcomes expected to be delivered for DRR elements. This then guided the authors in reviewing budget allocations under each programme and subprogramme.

Step 3: Analysing subprogramme activities that had DRR elements and categorizing them according to the four key DRM categories – risk prevention and mitigation, preparedness, response and relief, and reconstruction and recovery.

Step 4: The same subprogramme activities were further categorized according to DRR policy objectives – principal, significant and not targeted – and were weighted using the OECD DAC Rio marker weighting guidelines (principal = 100%, significant = 40% and non-DRR = 0%).

The policy marker relies on – and the quality of results therefore depends on – the availability of documentation in relation to policy objectives and spending activities. In general, the more disaggregated and documented the budget at the activity level, the more accurate the marking. In reality, the level of disaggregation varies from one country to another.¹²

Although programme objectives were stated in 14 country budgets out of 16, Table A1 shows that only half of the countries disaggregated activities. In most cases (13 out of 16), financial documents available captured exclusively domestic budget resources; Angola,¹³ Côte d'Ivoire and Guinea-Bissau were the exceptions (both domestic and foreign resources were presented in the budgets).

¹⁰ When budget data was not available (i.e. for Cameroon and Guinea-Bissau), public investment plans were used instead. Due to data availability, the analysis is based on 'planned' rather than 'executed' expenditures.

¹¹ Budget information for Gabon and São Tomé and Príncipe was retrieved from www.mays-mouissi.com and www.cabri-sbo.org, respectively.

¹² An interesting aspect of disaggregation is whether local government authorities have their own budgets, in addition to national budgets. In 13 cases out of 16, countries have only national budgets (the exceptions are Angola, Rwanda and Tanzania (United Republic of)).

¹³ For example, the publicly available budgets for Angola do not separate domestic and external resources, making it impossible to take the origin of resources into account into the analysis.

The main challenge experienced during the RSBR was that programmes and activities are often neither classified/coded for DRR nor sufficiently described. This makes it difficult to identify the full range of activities that may be related to DRR in the budget. For some countries, such as Angola, budget expenditures are simply not coded; this requires the titles of expenditures to be linked across different years to perform the RSBR.

Considering these challenges and the 13 countries with national budgets only, the RSBR overview shows that, on average, a country has 27 national ministries, departments and agencies, of which 11 have DRR expenditures (either principal or significant).

Table A1: UNDRR's RSBR: an overview

Country	Coverage of RSBR analysis			Source of budget	Disaggregation level		DRR agency portfolio	Climate change adaptation (CCA)	DRR marked sectors*		
	Period	# of MDAs (ministries, departments, agencies)	# of DRR marked MDAs	Budget resources considered in the analysis [^]	Are programme objectives stated in the budget?	Are programme objectives disaggregated to activities?	Was the national DRR agency budget marked?	How was climate change marked in budgets?	Larger share of Agriculture marked DRR budget lies under...	Larger share of Health marked DRR budget lies under...	Larger share of Infrastructure marked DRR budget lies under...
Angola	2017–2019	66	40	Domestic/foreign	No	No	Yes*	Principal	Principal	Significant	Significant
Botswana	2014/15–2018/19	25	9	Domestic	Yes	Yes	No	NA	Significant	Significant	Significant
Cameroon	2019	54	13	Domestic	Yes	Yes	Yes	Principal	Significant	Principal	Significant
Côte d'Ivoire	2016–2018	38	29	Domestic/foreign	Yes	No	No	Principal	Significant	Significant	Significant
Equatorial Guinea	2016–2018	21	5	Domestic	Yes	Yes	Yes	NA	Significant	Significant	Significant
Eswatini (The Kingdom of)	2014/15–2018/19	35	12	Domestic	Yes	Yes	No	Principal	Principal	Significant	Significant
Gabon	2014–2017	21	9	Domestic	Yes	No	Yes	Significant	Significant	Significant	Significant
Gambia (The)	2014–2017	19	5	Domestic	Yes	No	Yes	NA	Significant	Significant	Significant
Ghana	2016–2018	29	8	Domestic	Yes	Yes	Yes	Principal	Significant	Significant	Principal
Guinea-Bissau	2015–2018	23	7	Domestic/foreign	No	No	No	Principal	Significant	Significant	None
Kenya	2013/14–2016/17	23	10	Domestic	Yes	Yes	No	Principal	Principal	Significant	Principal
Namibia	2014/15–2018/19	35	8	Domestic	Yes	Yes	Yes	NA	Significant	Significant	Significant
Rwanda	2016/17–2018/19	56	42	Domestic	Yes	No	Yes	Significant	Significant	Significant	Significant
São Tomé and Príncipe	2014–2017	11	7	Domestic	Yes	No	No	NA	Significant	Significant	Significant
Tanzania (United Republic of)	2016/17–2018/19	93	48	Domestic	Yes	No	No	Principal	Significant	Significant	Significant
Zambia	2015–2017	27	21	Domestic	Yes	Yes	Yes	Principal	Significant	Significant	Significant

Source: UNDRR (2019).

* These sectors were chosen due to their direct linkage to natural hazards; NA – No programmes for CCA were found in the RSBR analysis; ^ – All budgets analysed were planned budgets.

Annex 2: Tables

Table A2: Ministries in Ghana

No.	Ministries
1	Ministry of Aviation
2	Ministry of Communications
3	Ministry of Chieftaincy and Religious Affairs
4	Ministry of Defence
5	Ministry of Education
6	Ministry of Employment and Social Welfare
7	Ministry of Energy
8	Ministry of Environment, Science, Technology and Innovation
9	Ministry of Finance
10	Ministry of Fisheries and Aquaculture Development
11	Ministry of Food and Agriculture
12	Ministry of Foreign Affairs and Regional Integration
13	Ministry of Gender, Children and Social Protection
14	Ministry of Health
15	Ministry of Information
16	Ministry of Interior
17	Ministry of Justice and Attorney General's Department
18	Ministry of Lands and Natural Resources
19	Ministry of Local Government and Rural Development
20	Ministry of National Security
21	Ministry of Parliamentary Affairs
22	Ministry of Railways Development
23	Ministry of Roads and Highways
24	Ministry of Water and Sanitation
25	Ministry of Tourism, Culture and Creative Arts
26	Ministry of Transport
27	Ministry of Works and Housing
28	Ministry of Youth and Sports
29	Ministry of Trade and Industry

Source: Author based on 2019 Budget Statement.

Table A3: Principal marked DRR programmes and activities by ministries

Ministry	Share of principal marked DRR budget (%)	DRR marked programme	Specific DRR activity
Ministry of Interior	66.1	Improve internal security for protection of life and property	Conflict and disaster management: <ul style="list-style-type: none"> Disaster risk management Fire, rescue and extraction service management
Ministry of Information and Media Relations	15.4	Improve transparency and access to public information Ensure development communication across sectors	Mitigate the impacts of climate variability and change
Ministry of Works and Housing	12.0	Enhance capacity to mitigate impact of national disaster, risk and vulnerability	National flood control programmes: <ul style="list-style-type: none"> Adjoa (Takoradi) sea defence projects Ningo-Prampram sea defence works Komen-Ada Sea defence project Emergency national flood control programmes
		Increase resilience of coastal settlements and infrastructure	Sea defence construction projects: <ul style="list-style-type: none"> Nkomtompo sea defence project New Takoradi sea defence project Dansoman sea defence project Anomabu sea defence project Onukpawahe sea defence project Amanful Kumah sea defence project Cape Coast sea defence project Sakumono sea defence project Ngviresia emergency sea defence project Atoror-Dzita-Anyanui Emergency sea defence project Dixcove emergency coastal protection works Axim emergency coastal protection works
		Improve investment in disaster risk reduction and resilience	Infrastructure and drainage management: <ul style="list-style-type: none"> Akora river drainage project Extension of Nima drain project Onyasia upstream drain development project Mamahuma storm water drainage system Aboadze coastal project Various drainage projects (e.g. Adenta, Goaso, Mim, Asutifi, Hwidiem)
		Increase access to safe, secure and affordable shelter	<ul style="list-style-type: none"> Resettlement schemes Adjen Kotoku resettlement housing project Keta sea defence resettlement housing project

Ministry	Share of principal marked DRR budget (%)	DRR marked programme	Specific DRR activity
Ministry of Food and Agriculture	3.3	Food security and emergency preparedness	<ul style="list-style-type: none"> • Food storage, distribution and improved nutrition • Productivity improvement
		Improve institutional coordination for agriculture development	Surveillance and management of diseases and pests
		Promote development of selected staple and horticultural crops	Early warning systems and emergency preparedness
		Promote livestock and poultry development for food security and job creation	
		Food security and emergency preparedness	National strategic stock programmes
Ministry of Communications	3.2	Promote effective disaster prevention and mitigation	Meteorological services
Ministry of Environment Science, Technology and Innovation	7.8	Enhance capacity to adapt to climate change impacts	Climate change policy and programmes

Source: Author based on National Programme Budgets.

Table A4: Significant marked DRR programmes and activities by ministry

Ministry	Share of principal marked DRR budget (%)	Marked DRR programme	Specific DRR activity
Ministry of Health	70.6	Ensure sustainable equitable and easily accessible healthcare services	Health infrastructure <ul style="list-style-type: none"> • Bechem Hospital Rehabilitation Project • Development and rehabilitation of health centres • Development of health facilities nationwide • National Medical Equipment Replacement Project II • Rehabilitation and Expansion of Bolgatanga Regional Hospital Project <ul style="list-style-type: none"> • Tema General Hospital Improvement • Upgrade of Volta Regional Hospital to Teaching Hospital • Upgrading of radiotherapy and nuclear medicine centres • Health and service delivery • Regional and district health services • Health commodities • Logistics, stores and drug management • Development of CHPS Compound (All regions in Ghana) • Rehabilitation and construction of selected facilities
		Improve quality of health service delivery including mental health	Health and service delivery <ul style="list-style-type: none"> • Regional and district health services <ul style="list-style-type: none"> - Implementation of HIV/AIDS-related programmes - Public health services – Medical supplies - Disease surveillance control - Provision of clinical services
		Enhance efficiency in governance and management of the health system	<ul style="list-style-type: none"> • Health and service delivery • Regional and district health services <ul style="list-style-type: none"> - Medical supplies and drugs - Logistics, stores and drug management
Ministry of Food and Agriculture	19.1	Promote seed and planting material development	Productivity improvement
		Promote development of selected staple and horticultural crops	Plant fertilizer and seed management
		Increase access to extension services and re-orient agriculture education	<ul style="list-style-type: none"> • Food storage • Distribution and improved nutrition • Diversification of livelihood options

Ministry	Share of principal marked DRR budget (%)	Marked DRR programme	Specific DRR activity
Ministry of Lands and Natural Resources	6.7	Strengthen institutional and regulatory framework for management of natural resources	Promotion of bamboo and roton productions by afforestation
		Promote sustainable use of forest and wildlife resources	Plantation development and afforestation
		Maintain and enhance ecological integrity of protected areas	Protection and sustainable utilization of wildlife resources
		Reverse forest and land degradation	Forest and wildlife development and management
		Promote sustainable land management	Survey and mapping
Ministry of Environment Science, Technology and Innovation	2.4	Strengthen institutional and regulatory framework for management of natural resources	Environmental protection and education
		Promote spatially integrated and orderly development of human settlements	Spatial planning and human settlement
Ministry of Communications	0.8	Unspecified	Meteorological services
Ministry of Works and Housing	0.4	Establish a framework to coordinate human settlements development	Housing sector policies and programme review
		Promote resilient urban infrastructure development	Rural housing management

Source: Author based on National Programme Budgets.



www.preventionweb.net/resilient-africa
www.unisdr.org

This publication has been produced with the assistance of the European Union.

The contents of this publication are the sole responsibility of the United Nations Office for Disaster Risk Reduction and can in no way be taken to reflect the views of the European Union.

The material in this document is subject to copyright. Because UNDRR encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for non-commercial purposes as long as full attribution to this work is given.

Citation: UNDRR (2020). *Ghana: Risk-sensitive Budget Review*.