

# Disaster Risk Finance Country Note: Georgia

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World Bank Europe and Central Asia Disaster Risk Management  
World Bank Disaster Risk Financing and Insurance Program

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# Acknowledgements

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This note was prepared by a World Bank team composed of Vica Bogaerts, disaster risk management specialist, Benedikt Signer, disaster risk financing and insurance specialist, Tafadzwa Dube, disaster risk management Specialist, and Marija Bijelic and Natalia Kakabadze, consultants.

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# Abbreviations

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|         |  |
|---------|--|
| CAT DDO | Catastrophe Deferred Drawdown Option                                 |
| DRFI    | disaster risk financing and insurance                                |
| EIB     | European Investment Bank   |
| GDP     | gross domestic product   |
| GEL     | Georgian lari  |
| GFDRR   | Global Facility for Disaster Reduction and Recovery                  |
| MAGri   | Ministry of Agriculture  |
| MoF     | Ministry of Finance  |
| MRDI    | Ministry of Regional Development and Infrastructure                  |
| OCHA    | Office for the Coordination of Humanitarian Affairs (United Nations) |
| RegFund | Fund for the Projects Implemented in the Regions of Georgia          |
| UNDP    | United Nations Development Programme                                 |

All monetary amounts are Georgian lari (GEL) or U.S. dollars, as indicated.

US\$1 = GEL 2.4

# Preface

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This Disaster Risk Financing Country Note is the first activity of the World Bank's support to the Government of Georgia on financial protection against natural disasters. It takes stock of existing mechanisms and instruments used to finance disaster response in Georgia and lays the foundation for the development of a comprehensive disaster risk financing strategy.

Consultations on the findings of this analysis and on the options for next steps will be held in Tbilisi for relevant stakeholders from the government.

This note was developed jointly by the World Bank's Disaster Risk Management Team for the Europe and Central Asia Region and the Disaster Risk Financing and Insurance (DRFI) Program. The note builds on the operational framework for Disaster Risk Finance, which was developed by DRFIP drawing on collaboration with over 60 countries in strengthening their financial resilience to disasters and climate risks.

# Chapter 1: Introduction

This Disaster Risk Financing Country Note for Georgia provides an overview of the government's current approach to financing the costs imposed by natural disasters. It looks at the relevant institutional and legal frameworks and at the disaster risk finance instruments currently available to the government.

Georgia is located in the South Caucasus region along the dividing line separating Asia and Europe. It is bordered by the Black Sea to the west and the Caucasus Mountains to the north (map 1). About 80 percent of its territory is mountainous.

As of 2015, Georgia had a population of 3.7 million, with 53 percent of its people living in urban areas. It is an upper-middle-income country with a gross domestic product (GDP) of US\$13.965 billion<sup>1</sup> and a GDP per capita of US\$3,796.<sup>2</sup>

Between 2006 and 2014, following structural reforms that stimulated capital inflow and investments, Georgia experienced strong GDP growth of about 5 percent per year on average. This robust record was achieved despite the

- 1 World Bank, "Data: Georgia," <http://data.worldbank.org/country/georgia> [accessed September 2016].
- 2 World Bank, "GDP per Capita," <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD> [accessed September 2016].



global financial crisis in 2009, which interrupted growth. In 2015, economic growth moderated to an estimated 2.5 percent, due to a weaker external environment.

Despite this strong economic performance, a substantial part of the population is still living in poverty. Georgia continues to have one of the highest poverty rates in the Europe and Central Asia region, even though poverty rates have fallen considerably since their peak in 2010. As measured by the US\$2.5/day poverty line, poverty in Georgia fell from 46.7 percent in 2010 to 32.3 percent in 2014; the drop was mainly the result of increased earnings for the already employed and increases in social assistance. Unemployment fell to 12.4 percent in 2014, though urban and youth unemployment remained high at 22 and 31 percent, respectively. Rural households headed by women with children are particularly vulnerable to poverty.<sup>3</sup> By region, poverty is highest in Kakheti, Shida-Kartli, and Mtskheta-Mtianeti, and it is lowest in Tbilisi and Samtskhe Javakheti.<sup>4</sup>

The Georgian economy is characterized by high dollarization and significant fluctuations in the national currency, the Georgia Lari (GEL). With a decline in external performance, the current account deficit has widened to 11 percent of GDP, and the GEL has lost 30 percent of its value since December 2014.

Georgia's public debt remains at moderate levels, standing at 33.3 percent of GDP in 2014 (up from 32.2 percent of GDP in 2013). About 80 percent of public debt in 2014 was external; this external debt was dominated by long-term multilateral debt (70 percent) and also included some bilateral debt (20 percent). Given the highly concessional nature of public debt, interest payments average at around 1 percent of GDP a year. Nearly 75 percent of external public debt is at fixed interest rates, thereby reducing interest rate risk. Domestic financing of Georgia's deficit, which eases exchange market pressures, continued in 2015.<sup>5</sup>

Georgia is highly exposed to several natural hazards, including earthquakes, floods, mudflows, landslides, avalanches, and droughts. The country is situated in one of the most seismically active regions in the Alpine-Himalayan collision belt, and in the past earthquakes have caused significant damages to the country.<sup>6</sup> For instance, the 1991 Racha-Imereti and 1992 Pasaunauri- Barisakho earthquakes triggered around 20,000 landslides and rockfalls; these affected about 1,500 settlements, caused 100 deaths, resulted in the loss of around 332,000 hectares of arable land, and landslides completely buried two villages (Khaiseti in Sachkhere district and Chordi in Oni district).<sup>7</sup>

Floods, landslides, and avalanches occur regularly in Georgia, mostly in the mountainous regions and along the major rivers, with recorded high water levels during the spring and summer months, when snow starts to melt. Almost all rivers in the country are prone to sudden increases of water. The rivers most at risk of flooding are those in Imereti, Samegrelo, Guria, and Mtskheta-Mtianeti, as well as the rivers of Mtkvari basin (including Alazani).<sup>8</sup> Through 1995, the average number of floods a year was three to five; since 1995, the average number has been between 2 and 20.<sup>9</sup>

Over 50 percent of the national territory—including over 100 settled areas—is prone to avalanches. The high level of precipitation, characteristic of the rivers in the foothills of the Caucasus, has a significant impact on river hydrology. Landslides are especially intense in mountainous regions and represent the main impetus for economic migration. In the period 1968–2009, approximately 70 percent of the country's territory experienced geological and hydrometeorological hazards, and 65 percent of the population was affected.<sup>10</sup> Hail and drought in the eastern part of the country cause especially big losses in Georgia's agricultural sector, and the frequency and length of these hazards have increased in recent years. The longest drought—lasting six months—was recorded in 2000.<sup>11</sup>

3 UNDP 2014.

4 World Bank and United Nations 2013.

5 World Bank Group 2015.

6 UNDP 2014.

7 UNECE 2010.

8 Ministry of Environment and Natural Resources Protection 2011.

9 Ibid.

10 Rukhadze, Vachiberidze, and Fandoev 2014.

11 Ibid.

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The remainder of this report is organized as follows: Chapter 2 summarizes the economic impacts of recent disasters. Chapter 3 reviews the current institutional and legal framework for disaster risk management and financing. Chapter 4 gives an overview of the public financial management of disasters in Georgia, including ex ante and ex post disaster risk financing and insurance (DRFI) instruments currently in use for budget mobilization, and it looks at the Tbilisi floods of 2015 in some detail. The chapter concludes with a summary of financial resources available and a look at the potential resource gaps. Possible options for a disaster risk financing strategy are given in the final chapter.

# Chapter 2: Economic Impact of Natural Disasters

Georgia suffers significant economic losses due to natural disasters. Over the last 40 years, 70 percent of the country has experienced disasters from hydrometeorological and geological hazards.<sup>12</sup> Losses incurred between 1995 and 2013 as a result of landslides, floods, drought, storms, avalanches, and hail were calculated at GEL 2.7 billion.<sup>13</sup> Landslides, debris flows, and mudslides have destroyed irrigation systems, agricultural facilities, and road infrastructure. The severe drought of 2000 affected almost 700,000 people, and its adverse effect on agriculture and electricity generation by hydropower stations reduced GDP by 5.6 percent.<sup>14</sup>

Data on historical damage and losses resulting from natural disasters in Georgia are scarce. Table 1 summarizes disaster losses for 1991–2015 as recorded in the international EM-DAT database.

The following account of the June 2015 floods in the capital city of Tbilisi provides an example of the financial impact disasters can have.<sup>15</sup>

On the night of June 13–14, 2015, following 10 days of continuous and heavy rainfall, intense rainfall over the southeastern part of the Vere River drainage basin resulted in a flash flood, which affected the Vake and Saburtalo neighborhoods of Tbilisi, as well as other areas along the right bank of the Mtkvari (Kura) River and various places outside the city. Approximately 100 mm of rainfall fell over the Vere River drainage basin in only two hours, causing a flood whose peak flow was estimated at 468 m<sup>3</sup>/s. In addition, a large landslide (of about 1 million m<sup>3</sup>) struck near the village of Akhaldaba (about 10 km west of Tbilisi) and poured trees, rocks, soil, and other debris

Table 1. Historical Disasters in Georgia, 1991–2015

| Disaster   | Time period | Events (number) | Total deaths | People affected (number) | Total damage (US\$ million) |
|------------|-------------|-----------------|--------------|--------------------------|-----------------------------|
| Flood      | 1995–2015   | 14              | 61           | 153,078                  | 82 <sup>a</sup>             |
| Earthquake | 1991–2009   | 4               | 15           | 30,212                   | 350                         |
| Storm      | 2001–2013   | 3               | 0            | 8,668                    | 91                          |
| Drought    | 2000        | 1               | –            | 696,000                  | 200                         |

Source: D. Guha-Sapir, R. Below, Ph. Hoyois, EM-DAT: The CRED/OFDA International Disaster Database, Université Catholique de Louvain, Brussels, [www.emdat.be](http://www.emdat.be) (accessed May 2016).

Note: – = not available.

a. A post-disaster needs assessment carried out for the 2015 Tbilisi floods (UNDP and World Bank 2015) calculated damages at US\$24 million [as shown in the discussion of the 2015 Tbilisi flood below]. This differs substantially from the EM-DAT figure of US\$45million.

<sup>12</sup> UNDP 2014.

<sup>13</sup> Rukhadze, Vachiberidze, and Fandoev 2014.

<sup>14</sup> Ibid.

<sup>15</sup> This account of the Tbilisi floods draws on UNDP and World Bank (2015).

down a hillside into the already overflowing Vere River, transforming it into a massive torrent of mud and debris.

This disaster had devastating socioeconomic consequences for Tbilisi. The lives of twenty-one people were lost, 67 families were displaced, and around 700 people were directly affected. Indirectly, the disaster affected virtually the entire urban population of Tbilisi because of the physical and psychological impact it had on daily life. The floods damaged around 40 roads, the properties of 67 families, and several urban infrastructure and

communications systems, and it destroyed much of Tbilisi's zoo (killing most of its animals). According to the post-disaster needs assessment (UNDP and World Bank 2015), economic impact was high: the flood caused GEL 55 million (US\$24.3 million) in physical damage and GEL 10 million (US\$4.37 million) in financial losses, with US\$118 million needed for recovery (see table 2). Recovery needs were high relative to damage figures both because recovery was planned to “build back better” and because the condition of infrastructure was poor before the disaster.

*Table 2. Tbilisi Floods of 2015: Damages, Losses, and Recovery Needs per Sector (US\$ million)*

| Sector           | Damages     | Losses      | Recovery needs |
|------------------|-------------|-------------|----------------|
| Housing          | 6.9         | 0.77        | 21.0           |
| Transport        | 14.8        | 3.0         | 33.5           |
| Zoo              | 1.4         | 0.6         | 1.86           |
| Water/sanitation | 1.2         | 0.0         | 61.6           |
| <b>Total</b>     | <b>24.3</b> | <b>4.37</b> | <b>117.96</b>  |

Source: UNDP and World Bank 2015.

# Chapter 3: Overview of Institutional and Legal Arrangements for Disaster Risk Management and Financing

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## 3.1. Legal Framework

There are several legal acts governing disaster risk management and financing in Georgia:

**The Law of Georgia on Civil Safety** entered into force on June 12, 2014.<sup>16</sup> It serves as an umbrella law for regulating the field of disaster management in Georgia and was developed to bring Georgia closer to civil safety mechanisms of the European Union. The law defines measures for the protection of population and territory and establishes rules for emergency prevention, readiness, reaction, and rehabilitation works. It also outlines responsibilities of various ministries and agencies in managing and reducing disaster risk.<sup>17</sup>

**The Budget Code of Georgia** creates the overall legal framework for finance, including disaster risk financing.<sup>18</sup>

The budget follows cash-based accounting principles, meaning that unspent funds “lapse” at the end of the year.

**Annual Laws on State Budget of Georgia** define yearly budget allocations for different budget users and their annual programs.

**The Organic Law of Georgia on Local Self-Government** regulates local finances and property, including funding for eliminating the consequences of natural disasters. It recognizes the concept of special transfers—that is, financial aid rendered between the state budget, the budget of an autonomous republic, and the budget of a self-governing unit.<sup>19</sup> According to the law, a special transfer may be requested only if the reserve fund of the respective municipal budget is not sufficient to finance post-disaster activities.

<sup>16</sup> The Civil Safety Law replaced the Law on Protection of the Population and Territory from Natural and Man-made Emergency Situations.

<sup>17</sup> UNDP 2014.

<sup>18</sup> Budget Code of Georgia, [http://www.mof.ge/images/File/budget\\_legislation/BUDGET\\_CODE\\_OF\\_GEORGIA\\_ENG.pdf](http://www.mof.ge/images/File/budget_legislation/BUDGET_CODE_OF_GEORGIA_ENG.pdf).

<sup>19</sup> Organic Law of Georgia Local Self-Government Code, <https://matsne.gov.ge/en/document/download/2244429/15/en/pdf>.

## 3.2. Institutional Framework

A number of institutions are involved in disaster risk management and financing in Georgia:<sup>20</sup>

**The Ministry of Finance (MoF)** is in charge of overall disaster risk financing in the country. According to the Civil Safety Law, MoF supports the funding of civil security measures from budgets at the national, autonomous republic, and municipal levels, as well as other sources allowed by Georgian legislation. The ministry does not have a dedicated fiscal risk department. The Macroeconomic Analysis and Forecasting Department and Budget Department look at disaster risk financing from the standpoint of their respective activities. The Public Debt and External Financing Department are responsible for implementing any post-disaster borrowing, if necessary.

**The Emergency Management Agency** within the **Ministry of Internal Affairs** coordinates the roles of responsible ministries or agencies, as defined in the National Response Plan for Natural and Technological Emergency Situations. It focuses on prevention of, preparedness for, and response to both natural and man-made disasters. The International Relations Department of the Ministry of Internal Affairs ensures the establishment of relations with donor states and organizations, relevant agencies of foreign countries, and international organizations.

**The Ministry of Environment and Natural Resources Protection** is in charge (among other things) of disaster risk reduction strategies and policies, planning of disaster risk reduction activities, establishment of a disaster risk reduction database, and capacity development related to early warning systems, as well as monitoring of ongoing hydrometeorological, geodynamic, and geological events.

**The State Security and Crisis Management Council** was established in December 2013 and is under the prime minister's office. It coordinates and manages any kind of national-level crisis response. It also manages the Crisis Operations Centre.

**The Ministry of Regional Development and Infrastructure (MRDI), the Ministry of Agriculture (MAGRI), or the Ministry of Health** acts as a mediator between local governments and MoF. The relevant ministry—determined by the type of damage sustained—requests an allocation of additional funds (a transfer) to a disaster-affected municipality when the local budget reserve fund is not sufficient.

**The Natural Disaster Prevention and Rapid Response Unit** (established in 2014 under MRDI) is mandated to integrate disaster prevention, early warning, response, and post-disaster recovery in infrastructure planning and development. It is also involved in preparation of requests to allocate funds for disaster relief activities from the state budget.

**The Social Service Agency** administers a number of social and health protection programs aimed at supporting the most vulnerable groups and improving the quality of services available to citizens. Disaster-related indicators are not taken into account by social assistance programs for vulnerable families (for example, poor families who live in particularly hazard-prone areas do not receive any additional support).<sup>21</sup> However, under the State Budget Law of 2012, the Social Service Agency became responsible for providing the population with medical services in cases of natural disasters, catastrophes, and other emergencies. In addition, after the Tbilisi floods of 2012, the agency was directed to issue cash compensation to disaster-affected individuals and households.<sup>22</sup>

The affected municipality has primary financial responsibility for remedying the effects of disasters and for protecting the population and the territory from emergency situations.<sup>23</sup> Nonetheless, Georgian law allows for other sources of funds to be mobilized in an emergency, including the state budget of Georgia, budgets of the Autonomous Republics of Achara and Abkhazia, local budgets, insurance funds, and some other sources. According to the Article 67 of the Budget Code of Georgia, a special fund can be created within budget of local governments for unexpected

20 The descriptions here draw on UNECE (2015) and the Statute of the Ministry of Internal Affairs of Georgia, <http://police.ge/files/debuleba/Statute%20of%20the%20Ministry%20of%20Internal%20Affairs%20of%20Georgia.pdf>.

21 UNDP 2014.

22 World Bank and UN 2013.

23 Budget Code of Georgia, 2009, [http://www.mof.ge/images/File/budget\\_legislation/BUDGET\\_CODE\\_OF\\_GEORGIA\\_ENG.pdf](http://www.mof.ge/images/File/budget_legislation/BUDGET_CODE_OF_GEORGIA_ENG.pdf).

expenses. The volume of this fund cannot exceed 2% of the annual budget allocation.

In practice, when a natural disaster occurs, the affected areas is visited by a commission made up of officials from the municipality's sectoral departments (i.e., agriculture, construction, health), the line ministry, and the Emergency Management Agency. Using current market prices, the commission calculates an estimation of the losses. The local self-government requests support from the national government only if needed funds are higher than those available in the local contingency reserve. The required funding can be provided from the reserve funds of the government or president, from the Fund for the Projects Implemented in the Regions of Georgia (RegFund), or from line ministry budgets, depending on the character of damage sustained. Local reserve funds serve as a primary source of liquidity for financing of response activities, given that they can be mobilized immediately and that obtaining any additional financing (via special transfers) from the national level requires some time.

# Chapter 4: Public Financial Management of Natural Disasters

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The ability of the government to rapidly mobilize funding for an effective response to a disaster depends largely on the financial instruments it puts in place beforehand. A comprehensive approach to risk financing can help a government become an active risk manager rather than an emergency borrower. This chapter reviews the existing financial arrangements available to the government of Georgia to meet post-disaster expenditures.

Disaster risk finance aims to increase the capacity of national and local governments to provide immediate emergency funding as well as long-term funding for reconstruction and development. In addition to ensuring the availability of sufficient resources, disaster risk finance must also set up systems, mechanisms, and procedures for effectively allocating and disbursing the necessary funds in the aftermath of a disaster. Once the government has a good understanding of the risk it faces, a financial risk management strategy can be designed and financing mechanisms can be implemented.

International experience has shown that a government ideally combines different instruments to protect cost-effectively against events of different frequency and severity. Financing mechanisms can be grouped into two main categories:

1. **Retention**, in which the government decides to assume and manage disaster losses through its budgetary resources<sup>3/4</sup>for example, through the creation of budgetary reserves, funds, or post-disaster budget reallocations, or through contingent financing or borrowing
2. **Transfer**, in which the government transfers potential future disaster losses to financial or insurance markets by paying a premium, such as through traditional insurance, alternative risk transfer products, or contingent financing mechanisms

Combining different instruments to protect against events of different frequency and severity is known as *risk layering* (figure 1). A bottom up approach is recommended: the government first secures funds for recurring disaster events and then increases its post-disaster financial capacity to finance less frequent but more severe events. Such risk layering ensures that cheaper sources of money are used first, with the most expensive instruments used only in exceptional circumstances. For example, insurance

Figure 1. Three-Tiered Risk Layering Strategy for Governments



Source: World Bank and GFDRR 2014.

can provide cover against extreme events, but it is not appropriate for protecting against low-intensity events that recur regularly. For this lowest layer of risk, the government could consider setting up a dedicated contingency fund.

Georgia currently does not have an explicit strategy or policy in place to systematically manage the financial impact of natural disasters. The government has established contingent budgetary lines at both local and national levels, as well as several other financing instruments. However, the government remains very exposed to more extreme events, relying heavily on ex post mechanisms such as budget reallocations or international donor assistance for response and recovery. Catastrophe insurance penetration is very low. According to the “National Progress Report on the Implementation of the Hyogo Framework for Action,” reallocations are one of the primary sources of compensations for high-impact disasters in Georgia. In the aftermath of natural disasters the government has

historically supported the population with one-time financial compensations, food, and fertilizers.<sup>24</sup>

Table 3 summarizes available financing sources and amounts for the different levels of disaster risk. It shows how much is potentially available for disasters, assuming that all contingency reserves can be used for remedying disaster consequences. First, the local-level funds are mobilized. If those funds are not sufficient, local governments turn to the national government (a line ministry such as MRDI or MAgri, based on the nature of the damage), which through MoF then transfers additional funds from one or more of the available national funds or from ministry budget allocations. The source again depends on the nature of damage, as well as the degree.

24 Ministry of Environment and Natural Resources Protection 2015.

Table 3. Sources of Funds Available for Disaster Response in Georgia

| Disaster risks   | Financial source available            | Amount of funds available  |
|--|---------------------------------------|--|
| High-risk layer<br>(e.g., major floods, major earthquakes)       | Donor assistance                      | Unpredictable and unreliable—e.g., US\$15.8 million 2000–2015; in 2015 GEL 496,000 / US\$220,000 for Tbilisi floods                      |
|  | Sovereign risk transfer               | Not in use   |
|  | Insurance of public assets            | Scarcely in use  |
|  | Tax policy                            | No reported use, but legally possible  |
| Medium-risk layer<br>(e.g., regional floods, minor earthquakes)  | Emergency borrowing                   | Used only for Tbilisi floods (€50 million from European Investment Bank). Unpredictable. Fiscal space exists.                            |
|  | Emergency budget/budget reallocation  | Can be used to complement reserve funds in case emergency budget is activated. Unpredictable amounts.                                    |
|  | Reserve Fund of the President         | No more than 2 percent of annual budget allocation cumulatively with Fund of Government<br>[in 2016, GEL 2.8 million / US\$1.2 million]  |
|  | Reserve Fund of the Government        | No more than 2 percent of annual budget allocation cumulatively with Fund of the President<br>[in 2016, GEL 61 million / US\$26 million] |
| Low-risk layer<br>(e.g., localized floods, droughts, landslides) | RegFund                               | In 2016, GEL 269 million / US\$ 115 million  |
|  | Budgets of line ministries            | Financing for damage rehabilitation based on nature of damage. Unpredictable   |
|  | Reserve funds of autonomous republics | No more than 2 percent of annual budget allocation   |
|  | Reserve funds of local governments    | No more than 2 percent of annual budget allocation<br>[in 2016, GEL 12.4 million / US\$6.3 million]                                      |

Source: Figures are based on discussions with government officials and publicly available information.

In practice, however, contingency reserves are not exclusively earmarked for disaster-related expenditures; they can be accessed for financing other expenditures that have not been budgeted for elsewhere. Table 4 shows annual budget allocations and executions for various budget lines, as well as annual expenditures on disasters, broken

down by source of funding, for the period 2010–2015. We can conclude that even in the years when major natural disasters occurred—such as 2015, the year of the Tbilisi floods—not all budgeted funds were used for remedying disaster consequences.

Table 4. Central Budget Funds Available for Disaster-Related Expenditures and Actual Annual Expenditures on Disasters (thousand GEL)

|      | Fund                            | Reserve Fund of President | Reserve Fund of Government | RegFund | MRDI budget | MAgri budget | Ministry of Health budget | Other  | Total     | Total (thousand US\$) |
|------|---------------------------------|---------------------------|----------------------------|---------|-------------|--------------|---------------------------|--------|-----------|-----------------------|
| 2010 | Budget plan                     | 54,563                    | 54,011                     | 240,825 | 728,221     | 38,680       | 1,611,004                 |        | 2,727,304 | 1,538,416             |
|      | Actual budget execution         | 54,315                    | 53,236                     | 238,252 | 716,705     | 30,640       | 1,605,041                 |        | 2,698,189 | 1,521,993             |
|      | Annual expenditure on disasters | -                         | -                          | -       | 14,700      | 0            | -                         |        | 14,700    | 8,292                 |
| 2011 | Budget plan                     | 49,290                    | 54,516                     | 359,205 | 854,485     | 86,242       | 1,677,135                 |        | 3,080,873 | 1,844,502             |
|      | Actual budget execution         | 49,023                    | 54,207                     | 356,931 | 834,568     | 85,112       | 1,665,948                 |        | 3,045,789 | 1,823,498             |
|      | Annual expenditure on disasters | 50                        | 50                         | 10,007  | 17,733      | 0            | -                         |        | 27,840    | 16,668                |
| 2012 | Budget plan                     | 49,800                    | 67,238                     | 387,439 | 767,980     | 241,601      | 1,823,155                 |        | 3,337,213 | 2,014                 |
|      | Actual budget execution         | 48,780                    | 65,268                     | 378,950 | 655,075     | 228,360      | 1,793,863                 |        | 3,170,296 | 1,913,621             |
|      | Annual expenditure on disasters | 0                         | 93                         | 6,315   | 7,700       | 0            | -                         |        | 14,108    | 8,516                 |
| 2013 | Budget plan                     | 9,996                     | 102,765                    | 448,328 | 1,003,600   | 241,500      | 2,345,000                 |        | 4,151,189 | 2,390,825             |
|      | Actual budget execution         | 9,944                     | 97,971                     | 355,321 | 798,595     | 227,430      | 2,126,457                 |        | 3,615,718 | 2,082,427             |
|      | Annual expenditure on disasters | 0                         | 0                          | 38,931  | 7,400       | 0            | -                         |        | 46,331    | 26,684                |
| 2014 | Budget plan                     | 3,708                     | 88,006                     | 317,701 | 935,735     | 272,115      | 2,632,649                 |        | 4,249,914 | 2,292,154             |
|      | Actual budget execution         | 3,672                     | 82,741                     | 307,567 | 904,963     | 265,756      | 2,642,784                 |        | 4,207,483 | 2,257,718             |
|      | Annual expenditure on disasters | 0                         | 14                         | 41,316  | 10,200      | 11,800       | -                         |        | 63,330    | 33,982                |
| 2015 | Budget plan                     | 4,977                     | 170,013                    | 404,842 | 880,149     | 311,106      | 2,882,780                 | 12,150 | 4,666,017 | 1,922,808             |
|      | Actual budget execution         | 4,692                     | 167,944                    | 399,584 | 898,398     | 314,332      | 2,906,169                 | 9,904  | 4,701,023 | 1,962,931             |
|      | Annual expenditure on disasters | 200                       | 4,945                      | 71,060  | 6,900       | 1,947        | -                         | 3      | 85,055    | 35,515                |

Source: Data for 2011–2015 provided by MoF. Before 2011, the data on the expenditure of funds on disaster were not produced.

Note: - = not available.

## 4.1 Ex Ante Disaster Risk Financing and Insurance Tools

### 4.1.1. Budget Reserves

Budget contingencies together with reserves are the cheapest source of ex ante risk financing and are generally used to cover recurrent losses. In 2016, the amount allocated for addressing natural disasters was GEL 39.6 million. This category includes local-level reserve funds, contingent credit, and disaster insurance.

*Local-level reserve funds.* As the primary carriers of financial responsibility, local authorities create reserve funds to finance their contingent liabilities. The Budget Code of Georgia and Local Self-Government Code stipulate that the size of such reserve funds should not exceed 2 percent of total annual budget allocations. Local reserve funds are not exclusively earmarked for natural disasters, but are available for all unforeseen (and not budgeted for) expenditures. Final decisions about allocation depend on mayors or municipal governors. In 2016, the total amount of reserve funds in municipalities was GEL 15 million (approx. US\$6.3 million). Some municipalities also have small amounts in their social protection budget available for financing social issues or to support vulnerable populations in case of fire, storms, or other small events.

*Reserve funds of autonomous republics.* Like municipalities, provincial governments are also required to reserve 2 percent of their annual budget for unforeseen expenditures, which include natural disasters. These funds are allocated by the relevant financial agency based on decisions of the chairmen of the governments of the autonomous republics.<sup>25</sup>

*National level.* There is no special budget item for disaster financing in Georgia's central budget, but there are three funds from which financing is allocated if there is a need: the Reserve Fund of the President of Georgia, the Reserve Fund of the Government of Georgia, and the Fund for the Projects Implemented in the Regions of Georgia; these are described below. In addition, depending on the character of

the damage sustained, the budgets of various line ministries (typically MAGri, MRDI, or Ministry of Health) can be used to finance disaster-related expenditure.

Under the Budget Code of Georgia, the cumulative size of the *Reserve Fund of the President of Georgia* and the *Reserve Fund of the Government of Georgia* cannot exceed 2 percent of the total annual budget allocation. Resources from these two funds are used for expenditures not already included in the budget; the Budget Code of Georgia specifies that they are for contingencies of national significance such as natural and man-made disasters.<sup>26</sup> Decisions on use of these reserve funds are taken by the president and the government, respectively, in accordance with the amounts provided for in the national budget and executed by the MoF. As table 4 shows, the cumulative amount of funds has been steady over the past years, but an increasing portion of resources has recently been allocated to the government fund. In the period 2010–2014, only a small portion of these funds was required and used to finance disaster-related expenditures. In 2015, the Tbilisi floods triggered the need to mobilize both these funds, though only to a limited extent: GEL 200,000 (US\$80,000) was used from Fund for the President, and GEL 5 million (US\$2.065 million) was used from the Fund for the Government. The 2016 budget provides GEL 2.8 million (US\$1.2 million) for the former and GEL 60.9 million (US\$26 million) for the latter.

*The Fund for the Projects Implemented in the Regions of Georgia* is set up in the central budget and managed by the MoF based on the decision made by the government of Georgia. According to the “National Progress Report on the Implementation of the Hyogo Framework for Action,” the RegFund covers three areas, one of which is disaster response and humanitarian aid.<sup>27</sup> This fund represents a very significant source of disaster-related financing, as table 4 shows. Its contribution was most evident in 2013 and 2014, when over US\$22 million a year was allocated from the RegFund for disasters. Likewise, after the Tbilisi floods of 2015, the largest source of government financing was the RegFund, which contributed GEL 71.1 million (US\$30 million). The 2016 state budget designated GEL 269 million (or approximately US\$115 million) to the RegFund.

<sup>25</sup> Budget Code of Georgia, 2009

<sup>26</sup> Ibid.

<sup>27</sup> Ministry of Environment and Natural Resources Protection 2015.

### 4.1.2 Contingent Credit

For the middle risk layer, the budget reserves of the government would not be sufficient; this was the case in the Tbilisi floods of 2015. So far, Georgia does not have any contingent credit arrangements linked to natural disasters. To facilitate more rapid access to potentially significant financing sources, international partners such as the World Bank offer contingent credit for disaster recovery and reconstruction purposes. Georgia, as a middle-income country, is eligible for the Development Policy Loan with a Catastrophe Deferred Drawdown Option (CAT DDO) offered by the World Bank. The CAT DDO offers the government access to immediate liquidity through an active but undisbursed line of credit.

### 4.1.3 Disaster Insurance

Property catastrophe risk insurance aims to protect homeowners and small and medium enterprises against loss arising from property damage. Disaster risk insurance is available in Georgia, but it is underutilized; the insurance market in general has very low penetration, leaving the government with potentially large fiscal exposure. There is no compulsory private property insurance against natural disasters, and commercial banks issuing mortgage loans do not require their customers to purchase such insurance. Nor is there disaster-related insurance in the construction sphere. A major part of the population has limited knowledge and understanding of the role of catastrophe insurance. Implicitly, households have high expectations that the government will pay for damages. These expectations work against demand for insurance, even though insurance could reduce the fiscal impact of disasters by transferring a portion of the financial burden to insurers.

Georgia has no compulsory insurance for public assets and no insurance strategy on the government level. According to government officials, some public assets are insured, while others are not.

On the other hand, crop and land insurance is growing. In 2014, the government introduced an agro-insurance program for small land owners against hail, excess rainfall, storm, and autumn frost. The government subsidizes the largest share of

the insurance premium from the state budget; each insurer of a land parcel can receive 70 percent of co-financing for each crop envisaged under the program (50 percent for vine crops).<sup>28</sup> In 2014 and 2015, the state budget allocated 10 million GEL and in 2016 9 million GEL for the insurance subsidy program under the Ministry of Agriculture.

## 4.2 Ex Post Instruments

### 4.2.1 Budget Reallocations

For small-scale damage, the 2 percent of reserve funds found in municipal budgets is used to finance disaster recovery activities. However, in the event of a larger disaster, these reserve funds are not sufficient, and a special transfer from the national level is often requested. A special transfer may be requested only if the reserve fund of the respective municipal budget is not sufficient to finance the activities. The request is submitted through a line ministry (typically MRDI, MAGri, or Ministry of Health), depending on the nature of damage, and the line ministry acts as a mediator recommending that MoF allocate additional funds to the disaster-affected municipality.<sup>29</sup>

Moreover, with the approval of the minister of finance, each ministry has the right to reallocate a set amount—up to 5 percent of the allotments envisaged by the annual budget for the ministry—from one budget line to another.

Likewise, local authorities can reallocate their budgets so as to shift available funding between different programs. A municipality may, within its powers, use its own receipts, including transfers, at its discretion, according to the Law on Local Self-Government.

<sup>28</sup> The program's beneficiaries are owners of small land plots (up to 5 hectares of land or up to 30 hectares for cereals). Cooperatives are the subject of the insurance. The program is implemented by a noncommercial legal entity, the Agricultural Project Management Agency. The agency enters into contracts with several insurance companies, which then cover damage resulting from hail, excess rainfall, storm, and autumn frost (for citrus crops for the period September 1–November 30).

<sup>29</sup> If international roads are damaged, the needed amount is allocated from the 25 01 10 account of the MRDI Roads Department. The Roads Department constructs and (in case of disasters) repairs the international and municipal roads and bridges; within disaster prevention activities, it implements fortification works for international and municipal roads.

Table 5. International Donations Following Natural Disasters

| Emergency / date          | Amount committed / contributed (US\$) |
|---------------------------|---------------------------------------|
| Drought–August 2000       | 10,341,843                            |
| Drought–February 2002     | 834,654                               |
| Earthquake–April 2002     | 3,375,511                             |
| Floods–April 2005         | 1,327,943                             |
| Earthquake–September 2009 | 14,388                                |
| <b>TOTAL</b>              | <b>15,894,339</b>                     |

Source: UN OCHA Financial Tracking Service, <https://fts.unocha.org/pageloader.aspx?page=emerg-emergencyCountryDetails&cc=geo> [accessed September 2016].

#### 4.2.2 Donor Aid

Currently, several international cooperation partners provide funding through various programs, projects, and initiatives at national and local levels. A Donor Coordination Council was recently established under the prime minister's office to strengthen donor coordination.

According to the Financial Tracking Service of the UN Office for the Coordination of Humanitarian Affairs (OCHA), international donor assistance of almost US\$16 million was contributed for recovery after natural disasters in the period from 2000 to 2009 (table 5). More recent data were not available.

The World Bank and United Nations report that following the Tbilisi floods in 2012 and 2015, international partners and donors supported the needs assessments and provided immediate funds for relief and recovery.<sup>30</sup> During the events, special treasury accounts were created within the Tbilisi Municipality for donations in Iari and within the Ministry of Finance for donations from abroad.

Georgia will likely continue to look to donor support in the event of a major catastrophe. But it cannot expect donor assistance in response to less severe but frequently recurring events. In any case, donor financing is highly unpredictable and does not allow the government to plan financing for a fast disaster response. In addition, disaster assistance may decline in the future as Georgia becomes more economically prosperous.

#### 4.2.3 Emergency Borrowing

Georgia's public debt in 2013 was 32.2 percent of GDP, increasing to 33.3 percent in 2014; these figures imply that fiscal space exists for emergency borrowing in the event of a natural disaster. According to government officials, the only time borrowing was used for post-disaster financing was in the aftermath of Tbilisi 2015 floods, when the European Investment Bank (EIB) approved a €100 million loan, split into two €50 million components (one of which was for disaster-related reconstruction). Loan proceeds are being used to address the needs resulting from the damage inflicted by the floods and to rebuild and upgrade infrastructure in selected municipalities across the country.<sup>31</sup>

30 See World Bank and UN (2013); UNDP and World Bank (2015).

31 European Investment Bank, "Georgia: EIB Supports Urban Reconstruction and Highway Upgrading with EUR 150m," February 11, 2016, <http://www.eib.org/infocentre/press/releases/all/2016/2016-037-georgia-eib-supports-urban-reconstruction-and-highway-upgrade-with-eur-150m.htm>.

Table 6. Disaster-Related Expenditures and Budget Revisions

| Fiscal year | Amount allocated for addressing natural disasters (GEL) | Share in the central budget (%) | Number of budget revisions during the year |
|-------------|---|---------------------------------|--|
| 2011        | 10,106,887  | 0.14                            | 3  |
| 2012        | 167,393,865   | 2.14                            | 2  |
| 2013        | 40,085,369  | 0.49                            | 0  |
| 2014        | 34,702,415  | 0.39                            | 0  |
| 2015        | 81,680,715  | 0.84                            | 2  |

Source: Authors with information from Ministry of Finance.

#### 4.2.4 Tax Policy

Tax policy has not been used in Georgia as an instrument to raise additional revenue following disasters. Nor have tax deductions been offered as incentives to assist with financing the cost of disasters. However, under Georgia's Budget System Law, Parliament is allowed to finance increased expenditures relating to a state of emergency by enacting taxes, fees, or other obligatory payments, as proposed by the government with the agreement of the president.<sup>32</sup> Even though this can be a relatively easy way for the government to collect the necessary funds, it may not be the most effective method, especially if large parts of the population are directly or indirectly affected by a disaster.

#### 4.2.4 Emergency Budgets

The Budget Code of Georgia (articles 32, 70, and 93) provides for emergency budgets at different levels (national, municipal, and autonomous republic).<sup>33</sup> These can be adopted for targeted financing of events connected with emergency or military situations.

In years during which significant natural disasters occurred, such as 2012 and 2015, a number of revisions were made to the state budget. Conversely, in 2013 and 2014, no revisions of the state budget took place (table 6). The implication is that in years without a significant natural disaster, budget funds were adequate to cover disaster-related expenditures—around GEL 39 million (US\$22.4 million) was allocated from the RegFund in 2013 and around GEL 41 million (US\$22.2 million) in 2014. In those years other funds were drawn as well: in 2013, GEL 7.4 million (US\$4.26 million) came from MRDI's budget, and in 2014 GEL 10.2 million (US\$5.5 million) came MRDI's budget and GEL 11.8 million (US\$6.3) from MAgri's.

32 Budget System Law, 2004, <http://www1.worldbank.org/publicsector/pe/BudgetLaws/Georgia5JUNE06.pdf>.

33 Budget Code of Georgia, [http://www.mof.ge/images/File/budget\\_legislation/BUDGET\\_CODE\\_OF\\_GEORGIA\\_ENG.pdf](http://www.mof.ge/images/File/budget_legislation/BUDGET_CODE_OF_GEORGIA_ENG.pdf).

### 4.3 Case Study: June 2015 Tbilisi Flood

On June 14, 2015, the day the Tbilisi flood occurred, Georgia's president ordered establishment of an on-site Emergency Coordination Group, chaired by the prime minister and comprising members of the Ministry of Internal Affairs, the Ministry of Finance, the Ministry of Defense, the Ministry of Regional Development and Infrastructure, and other line ministries. The Emergency Coordination Group coordinated a national emergency relief response.

On July 26, the Ministry of Finance formally asked the United Nations, the World Bank, and other international partners to offer support by conducting a joint assessment of the impacts of the disaster and related recovery and reconstruction requirements. The assessment estimated financial requirements for recovery at GEL 268 million (US\$118 million) (UNDP and World Bank 2015). Recovery needs refer to the financing required to help affected people recover their pre-disaster level of household income, to restore the supply of and access to basic services (health care, education, water and sanitation, etc.), and to ensure recovery of production in sectors such as agriculture, industry, commerce, and tourism.

Treasury accounts were created within the Tbilisi Municipality for donations in lari and within the Ministry of Finance for donations from abroad. The immediate response was financed through the Tbilisi City Hall and the Tbilisi budget as well as some transfers from budgets of other local governments, with the largest share coming from the state budget. Donations from many large companies—including commercial banks and insurance and pharmaceutical companies—represented the second-largest source of financing. While there was no borrowing immediately after the disaster, MoF for the first time asked donors for disaster-related financial support. Insurance companies paid out GEL 4.6 million (slightly under US\$2 million) to policyholders. Half of the claims were paid for corporate property.

International donations, private insurance, and domestic donors' charity support represented a significant portion of the secured funding (see table 7). Together with the budget allocations, funding was sufficient to cover damages and losses and reinstate economic activity. However, given the recovery needs assessment of GEL 268 million (US\$118 million), the €50 million EIB loan, extended in February 2016, was necessary to at least partially finance the gap, though a funding gap of GEL 62.5 million (US\$36 million) for full recovery remains unbridged.

Table 7. Sources of Financing for 2015 Tbilisi Floods

| Sources of financing            | GEL thousand | US\$ thousand |
|---------------------------------|--------------|---------------|
| EIB loan EUR 50million          | 130,000      | 54,000        |
| State Budget                    | 34,881       | 14,564        |
| Tbilisi Municipality budget     | 3,179        | 1,327         |
| Transfers between local budgets | 41           | 17            |
| Charity                         | 23,837       | 9,953         |
| Donors                          | 496          | 207           |
| Private Insurance               | 4,639        | 1,937         |
| Total                           | 197,073      | 82,006        |

Source: Authors with information from Ministry of Finance.

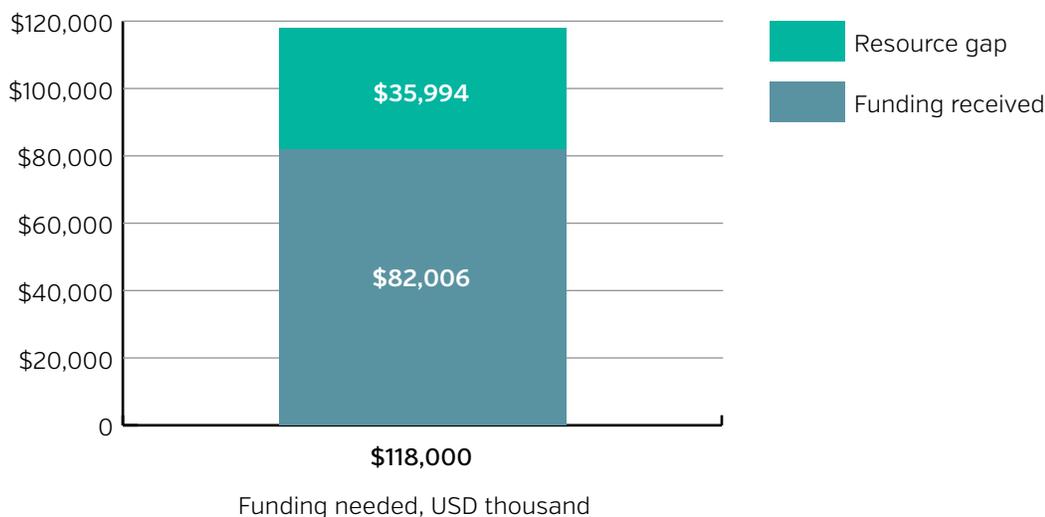
## 4.4 Summary and Funding Gap

The current financing available for disaster response is insufficient to cover larger events, as the case of the 2015 Tbilisi floods demonstrated: public funds made up a significant portion of post-flood financing, but a substantial funding gap remained (figure 2). The lack of sufficient funds represents a significant risk; the government remains exposed to more extreme events and relies heavily on domestic and international donor assistance for relief, recovery, and reconstruction.

In its review of the disaster risk financing and insurance instruments available in Georgia, this chapter indicates that the number of instruments available is limited, and that the government currently relies largely on budgetary reserves and ex post instruments such as budget reallocations and borrowing to meet post-disaster needs.

Public as well as private assets remain largely uninsured, and alternative risk transfer instruments do not exist. In previous disasters, costs that were not covered by public funds were partially financed by donor assistance, which is often unpredictable, or reallocated from existing projects. Georgia has no strategy or policy framework in place to actively manage the financial impact of natural disasters. It is important that all levels of government understand the current financing requirements and take the appropriate fiscal preparedness measures.

Figure 2. Funding Gap for 2015 Tbilisi Flood Response (US\$ thousand)



Source: Ministry of Finance.

# Chapter 5: Options for Consideration

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Drawing on information compiled in this note and consultations with all relevant stakeholders, the government may want to elaborate its priorities for strengthening financial resilience in a comprehensive DRFI strategy. This initial assessment has identified the following key gaps:

- It is unclear how much of the government budget has to be set aside for immediate disaster response, and for long-term recovery in particular.
- While current disaster funds seem sufficient to cover recurrent losses, the government remains exposed to more extreme events, relying heavily on international donor assistance for response, relief, and recovery.
- The World Bank has obtained limited information on the total exposure of public assets, and the government probably lacks complete information as well.

The government may want to consider the following options for consideration, which are based on the above findings:

**Recommendation 1: Establish policy priorities for DRFI to be defined by the government, and strengthen financial planning for disasters at all levels.** This step will lead the way in helping the national government to develop a DRFI policy note, and to move toward implementing an optimal combination of DRFI instruments, using a risk layering strategy. Furthermore, local governments could consider preparing action plans for disaster risk finance, based on the national DRFI policy documents.

**Recommendation 2: Explore the option of using contingent credit as a complementary budget resource for rapid liquidity to sustain emergency response.** As an economically stable middle-income country, Georgia is eligible for a contingency development policy loan from the World Bank (CAT DDO). This loan would make resources available immediately after a disaster to serve as bridge financing until other domestic funds can be reallocated or international aid is received.

**Recommendation 3: Strengthen insurance penetration and explore insurance of public assets.** The government may wish to consider promoting a culture of insurance and help develop private catastrophe risk insurance markets. The government could also consider developing a program for insuring public assets (such as public buildings and bridges) and critical infrastructure (such as power plants). This approach could also serve as an incentive to invest in better risk assessment and risk reduction activities (such as retrofitting) to reduce losses and lower the cost of insurance

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# Disaster Risk Finance Country Note: Georgia

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