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IMF POLICY PAPER

May 2017

LARGE NATURAL DISASTERS—ENHANCING THEFINANCIAL SAFETY NET FOR DEVELOPING COUNTRIES

IMF staff regularly produces papers proposing new IMF policies, exploring options for reform, or reviewing existing IMF policies and operations. The following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its May 5, 2017 consideration of the staff report.
- The **Staff Report**, prepared by IMF staff and completed on April 11, 2017, for the Executive Board's consideration on May 5, 2017.

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IMF Executive Board Adopts Decision to Enhance the Financial Safety Net for Developing Countries Hit by Large Natural Disasters

On May 5, 2017, the Executive Board of the International Monetary Fund (IMF) adopted proposals to enhance access of countries hit by large natural disasters to IMF financial support. These proposals, and the case for adopting them, are contained in the staff paper "*Large Natural Disasters—Enhancing the Financial Safety Net for Developing Countries.*"

Background

The IMF's Rapid Credit Facility (RCF) and Rapid Financing Instrument (RFI) are available to provide financing to Fund members facing urgent balance of payment needs, including those stemming from natural disasters. The RCF and RFI are designed to play a catalytic role in mobilizing other external financing. Since 2000, the RCF, RFI, and their predecessor instruments have provided financing following 27 natural disaster events.

As discussed in an earlier staff paper, "*Small States' Resilience to Natural Disasters and Climate Change—Role for the IMF*", large natural disasters can result in immediate balance of payments needs that are large in relation to access limits under RCF and RFI. In a follow-up paper discussed by the Board on May 5, 2017 the Executive Board of the IMF endorsed a proposal to increase the annual access limit under the RCF and RFI from 37.5 to 60 percent of a member's quota in the Fund. This would strengthen the Fund's financial safety net for countries experiencing urgent balance of payments needs arising from large natural disasters, while helping to catalyze other sources of financing to meet such financing needs. A member would qualify for the higher access limit under the RCF and RFI where the urgent balance of payments needs stem from a natural disaster that occasions damages of at least 20 percent of the member's GDP.

Executive Board Assessment[1]

[1] An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

Executive Directors welcomed the proposals for enhancing the financial safety net for countries hit by natural disasters. They recognized that, while these countries can avail themselves of the Rapid Credit Facility (RCF) and Rapid Financing Instrument (RFI), annual access limits under these instruments may be low relative to the size of balance of payment needs caused by large disasters, to which small states are most vulnerable. They noted that, when access limits under the RCF and RFI were halved with the doubling of Fund quotas under the 14^{th} General Review of Quotas, members that received the lowest quota increases were at a disadvantage and have not benefitted fully from the previous reforms that were intended to address an erosion of access limits.

Accordingly, Directors supported the proposed establishment of new windows under the RCF and RFI to provide annual access of up to 60 percent of quota for countries experiencing urgent balance of payments needs arising from large natural disasters. They noted that this will better help meet the immediate needs of these members and enhance the Fund's catalytic role in mobilizing other external financing. Directors agreed that, pending next year's comprehensive review of the Fund's facilities for low-income countries, the current cumulative access limits for both the RCF and the RFI should remain unchanged at 75 percent of quota. A few Directors saw a case for considering how to further enhance the financial safety net for fragile states.

Directors agreed that qualification for higher access under the large natural disaster windows within the RCF and RFI should be conditional, inter alia, on meeting a disaster damage threshold of 20 percent of the member's GDP. They considered that this threshold strikes the appropriate balance between providing emergency financing to disaster-hit countries on the one hand, and safeguarding Fund resources and discouraging facility shopping on the other hand. Directors also supported the staff's approach to estimating disaster damage, drawing on a range of third-party information and collaborating closely with other organizations, while ensuring that the Fund's response is timely and consistent with its mandate.

Directors welcomed the staff's assessment that the reform proposals would be consistent with the self-sustainability of the Poverty Reduction and Growth Trust (PRGT), and that demand for PRGT resources associated with the proposed damage threshold would not pose significant risks to the robustness of the Trust under a broad range of scenarios.

Directors underscored the importance of closely monitoring the experience with the use of the RCF and RFI, future financing demand, and the PRGT lending capacity as part of the regular reviews of Fund facilities. They also stressed the need for vulnerable countries to continue to enhance economic and financial resilience to shocks and strengthen policy frameworks, including risk reduction planning, noting in this regard that the Fund's surveillance and technical assistance can play an important role in helping these countries improve disaster preparedness.

INTERNATIONAL MONETARY FUND

LARGE NATURAL DISASTERS—ENHANCING THE FINANCIAL SAFETY NET FOR DEVELOPING COUNTRIES

April 11, 2017

EXECUTIVE SUMMARY

The Rapid Credit Facility (RCF) and Rapid Financing Instrument (RFI) are valuable components of the disaster risk financing tool kit for Fund members, especially developing countries. They help to meet urgent balance of payments needs, and are designed to play a catalytic role in mobilizing other external financing.

This paper develops proposals for a higher annual access limit under the RCF and RFI, building on a November 2016 staff paper on small states' resilience to natural disasters and climate change (IMF, 2016c). Directors generally supported the proposal in that paper to establish higher annual access limits of 60 percent of quota under the RCF and RFI for countries experiencing severe natural disaster-related damages.

The focus of this paper is to specify the threshold of damage from a natural disaster that would allow members experiencing urgent balance of payments needs arising from such disasters to access emergency financing at the higher annual limit. In the November 2016 paper, staff proposed, among other things, the possibility of establishing a higher access limit under the RCF and RFI where the amount of damage reached the threshold of 30 percent of GDP. Most Directors regarded the proposed threshold of disaster damage as overly restrictive, and suggested lowering the threshold to 20 percent of GDP or lower, provided that this did not jeopardize the self-sustainability of the PRGT. For a range of future disaster outcomes, a damage threshold of 20 percent of GDP could increase projected annual average PRGT loan demand in the 1-5 percent range over the next decade, which should not pose significant risks to the robustness of PRGT self-sustainability. Cautious stewardship of PRGT resources argues against a lower disaster damage threshold, pending further experience with disaster trends and associated PRGT loan demand.

This paper does not propose changes to the current cumulative access limits for the RCF and RFI. The cumulative access limits play an important role in the Fund's financing architecture, constraining the extent to which countries can access Fund resources without implementing a Fund-supported program with upper credit tranche (UCT) conditionality and associated policies in circumstances where such a program would be more appropriate. The Board will have the opportunity to review the cumulative access limits in the context of the review of the Fund's concessional lending facilities, scheduled for 2018.

Approved By
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CONTENTS

Abbreviations and Acronyms

ECF	Extended Credit Facility
ECLAC	UN Economic Commission for Latin America and the Caribbean
EM-DAT	Natural disasters database maintained by the Université Catholique de Louvain
GRA	General Resources Account
LIC	Low-income country
PDNA	Post-Disaster Needs Assessment
PRGT	Poverty Reduction and Growth Trust
RCF	Rapid Credit Facility
RDIA	Rapid Damage and Impact Assessment
RFI	Rapid Financing Instrument
SCF	Standby Credit Facility

INTRODUCTION

1. **The Rapid Credit Facility (RCF) and Rapid Financing Instrument (RFI) are valuable components of the disaster risk financing tool kit for Fund members, especially developing countries**. They help to meet urgent balance of payments needs, and are designed to play a catalytic role in mobilizing other external financing. The RCF, RFI, and their predecessor instruments provided financing following 27 natural disaster events over the period 2000 to 2016. The terms for financing under the RCF and RFI are documented in Box 1.

Box 1. Terms for RCF and RFI Financing

RCF financing

The RCF is available to PRGT-eligible members that face an urgent balance of payments need that, if not addressed, would result in immediate and severe economic disruption. Qualification for the RCF requires, among other things, that a UCT-quality program not be feasible or appropriate. This would be the case if either (i) the BOP need is expected to be resolved within one year and no major policy adjustments are necessary or (ii) a UCT-quality program cannot be put in place owing to limited policy implementation capacity or the urgent nature of the BOP need.

Fund policy provides safeguards to prevent repeated use of the RCF as a substitute for arrangements with ex post conditionality (see IMF, 2016a). Repeat use of the RCF within a three-year period is limited to cases where (i) the BOP need is caused primarily by a sudden exogenous shock or (ii) the country has established a track record of adequate macroeconomic policies for a period of normally about 6 months prior to the request. In any case, no more than two disbursements may be made in any 12-month period.

Standard annual access under the RCF is up to 18.75 percent of quota. Under the "shocks window", augmented annual access of up to 37.5 percent of quota is available, provided (i) the primary cause of the balance of payments need is a sudden exogenous shock, and (ii) the member's existing and prospective policies are sufficiently strong to address the shock. The RCF is subject to a cumulative access limit of 75 percent of quota.

RFI financing

The RFI is available to all member countries that face an urgent balance of payments need (although PRGT-eligible countries are more likely to use the concessional RCF). The annual access limit under the RFI is limited to 37.5 percent of quota and 75 percent of quota on a cumulative basis. Access under the RFI counts against access limits for the RCF. Similar to the RCF, qualification for the RFI requires, among other things, that a UCT program not be feasible or appropriate.

2. **This paper develops specific proposals to establish a large natural disaster window within the RCF and RFI with higher annual access limits for countries facing urgent balance of payments needs arising from severe natural disasters**. The paper on "*Small States' Resilience to Natural Disasters and Climate Change—Role for the Fund*", discussed by the Executive Board on December 1, 2016, proposed to raise the annual access limit under the RCF and RFI from the current 37.5 percent of quota to 60 percent of quota for countries experiencing urgent balance of payments

needs arising from severe natural disasters. Directors generally supported this proposal, noting that annual access can be small in relation to the most destructive disasters hitting vulnerable economies.

3. **In requesting a formal proposal on access limits, Directors asked staff to further explore a few issues:**

- *Design of the disaster damage threshold*. Most Directors regarded the proposed qualification threshold of disaster damage of at least 30 percent of GDP as overly restrictive, and suggested allowing for higher access in a larger range of circumstances, including lowering the disaster damage threshold to 20 percent of GDP or lower.
- *Cumulative access limits*. A number of Directors suggested considering an increase in cumulative access limits for the RCF and RFI for countries requesting disbursements in the context of large natural disasters.
- *Self-sustainability of the Poverty Reduction and Growth Trust (PRGT)*. Directors underlined that any proposal must safeguard the self-sustainability of the PRGT.

4. **Coverage of the paper**. This paper draws on Directors' views to develop a proposal for increased access limits under the RCF and RFI. The next section of this paper discusses key parameters for augmented access under the RCF and RFI. It covers the function of the proposed disaster damage threshold and options for its design, as well as considerations in regard to possible changes to the RCF and RFI cumulative access limits. This is followed by a section on the implications of different disaster damage thresholds for Fund financing demand under the PRGT and General Resources Account (GRA). This discussion is followed by an update on the lending capacity of the PRGT. The paper concludes with proposed decisions.

AUGMENTING RCF AND RFI ACCESS FOR HIGHER URGENT BALANCE OF PAYMENTS NEEDS ARISING FROM LARGE NATURAL DISASTER

5. **The approach adopted in this paper follows the principles laid out in the precursor paper**. Specifically, the RCF and RFI would be modified to establish a large natural disaster window within the RCF and the RFI with higher annual access limits for countries experiencing urgent balance of payments needs arising from severe natural disasters.[1] Disaster severity justifying a higher access limit would be measured relative to a damage threshold. Within this access limit, the

[1] Natural disasters include geophysical events (earthquakes, volcanic activity), metrological events (extreme temperatures, storms), hydrological events (floods, wave action), climatological events (drought, wildfire), and biological events (epidemics and infest infestation).

specific amount of access in individual cases will continue to depend on the scale of the BOP need, the assessment of the member's capacity to repay, the member's outstanding Fund credit and its record of using Fund resources in the past.[2] This section discusses the function and design of the threshold, and the proposed modifications to access limits.

A. Disaster Damage Threshold

6. **The proposed disaster damage threshold would help preserve the Fund's lending capacity**. Natural disaster-related financing needs are typically large in relation to Fund quotas, and financing requests to cover urgent balance of payments needs arising from exogenous shocks under the RCF and RFI have commonly—though not always—been at relevant access ceilings. Application of the access policy to calibrate access amounts in individual cases to the scale of balance of payments need guards against unwarranted high access. The disaster damage threshold supports this policy by helping to ensure that, where higher access is made available, it is for countries facing a large urgent balance of payments need. This is particularly important for use of PRGT resources, where the annual lending capacity of the PRGT is constrained by the limited pool of subsidy resources and it is imperative to maintain the self-sustaining nature of the trust.

7. **The proposed disaster damage threshold also discourages facilities shopping**. This relates to the possibility of using RCF or RFI resources in lieu of adopting a Fund arrangement involving UCT-quality policies with disbursements subject to reviews and ex post conditionality. Important safeguards are already in place to limit this possibility (Box 1). The disaster damage threshold would complement such safeguards by ensuring that higher access available under the new large natural disaster window of the RCF and RFI would be available only for countries facing a large, urgent balance of payments need arising from a natural disaster meeting the specified disaster damage threshold.[3] Other countries seeking higher access would request financing under a Fund arrangement involving UCT-quality policies. Higher access under the new large natural disaster window of the RCF and RFI would also only be available where the member's existing and prospective policies are sufficiently strong to address the natural disaster shock, in line with the current requirement under the RCF exogenous shocks window. In general, the disaster damage threshold should be low enough for the Fund to meet the urgent balance of payments needs of countries impacted by destructive disasters beyond the access currently available under the RCF and RFI, but high enough to safeguard the Fund's resources and discourage facilities shopping.

8. **Options for defining the natural disaster damage threshold have been considered**. Most Directors suggested allowing for higher access in a larger range of circumstances—going beyond disasters that are large in relation to GDP. Other options have been considered, but each

[2] In addition, as provided in the PRGT instrument, the access for each member that qualifies for assistance under the RCF will also take into account the size and likely persistence of the shock.

[3] Members meeting all the qualification criteria for access under the RCF and/or RFI, that experience an urgent balance of payments need arising from a natural disaster that does not meet the disaster damage threshold to qualify under the new large natural disaster window, may still access RCF and/or RFI financing under the current exogenous shocks window of the RCF or under the standard RCF and RFI access limits currently in place.

has drawbacks. A parametric approach could be adopted, with qualification thresholds based on the destructive power of disasters—such as wind-speed for hurricanes, Richter intensity for earthquakes, cumulative rainfall for floods, etc. These measures are often readily available, but a system of thresholds would be complex to design, requiring a separate metric for each type of disaster. In addition, because of basis risk, parametric measures of intensity are often only weakly related to disaster damages and scale of the urgent balance of payments needs. For example, earthquakes of a similar intensity can have very different impacts in different countries, depending on location, geological conditions, building codes, and other factors. Another option is to define disasters in terms of the proportion of the country's population impacted. This has the advantage of capturing the human impact of natural disasters, but again may not appropriately capture the scale of urgent balance of payments needs. An earthquake that impacts 25 percent of the population may result in a larger balance of payments need than a drought that affects a larger share of the population.[4] Operational considerations in estimating natural disaster damages in relation to GDP are discussed in Annex 1.[5]

9. **The economic cost of disasters is a good indicator of the urgent balance of payments needs addressed by the RCF and RFI**. Where disaster damages are financially-costly, they are likely to result in large overall balance of payments needs. And where the overall balance of payments need is large, there is also likely to be a significant urgent, temporary balance of payments need for which Fund financing would be appropriate under the RCF and the RFI, if all other applicable qualification requirements are met. Scaling the financial costs of disasters in relation to GDP provides a standardized threshold—though one that is more likely to be triggered for small than larger countries, given the different distribution of disaster sizes relative to GDP for the two groups of countries (Figure 1).

B. Cumulative Access Limits

10. **It is proposed that annual access limits be increased while retaining the current cumulative access limits**. As proposed in the precursor Board paper, annual access limits under the RCF exogenous shocks window and under the RFI would be increased to 60 percent of quota for countries facing urgent balance of payments needs arising from natural disasters that meet the disaster damage threshold. Many Directors also suggested considering an increase in cumulative

[4] A qualification criterion for access to Catastrophe Containment Relief Trust resources through the Post-Catastrophe Relief window is that a catastrophic disaster has directly affected more than a third of the population. However, qualification also requires an adverse economic impact through either (a) destruction of more than one-quarter of the country's productive capacity, or (b) disaster damage of more than 100 percent of GDP (see IMF, 2015a).

[5] The CCR Trust also includes an estimation of disaster damage. Estimates of disaster damages are subject to unavoidable margins of error. Qualification would be based on the best available estimates at the time of the request for RCF or RFI financing. In many cases, disaster damage assessments are not subject to revision (see, for example, the discussion of Post Disaster Needs Assessments in Annex 1). However, if financing was made available at a higher access level to address urgent balance of payments needs arising from disasters that are estimated to meet the disaster damage threshold, but subsequent information resulted in downward revision of the damage estimate to be below the qualifying threshold, this will not affect RCF or RFI disbursements already approved.

access limits, currently set at 75 percent of quota for both the RCF and RFI. However, the cumulative access limits play an important role in the Fund's financing architecture, by constraining the extent to which countries can access Fund resources without implementing a Fund-supported program with upper credit tranche (UCT) conditionality and associated policies. Given this role in the wider architecture, it would be appropriate to defer any consideration of changes to the cumulative limits until the comprehensive review of LIC facilities set for 2018.[6] Table 1 presents the overall access limits in the PRGT (and under the RFI), incorporating the modifications proposed in this paper for the RCF and RFI annual limits.

IMPACT ON PRGT AND GRA RESOURCES DEMAND

11. This section discusses the implications of reforms to the RCF and RFI for PRGT and GRA resources demand. The key factors for such calculations are discussed below, followed by empirical estimates based on baseline and alternative scenarios.

12. **Several factors can be expected to play a role in influencing the impact of RCF and RFI reforms on future PRGT and GRA resources demand**:

- *Frequency and size of future disasters*. Demand for Fund financing in a given period will depend on the number of disasters that meet the damage threshold as well as observance of the qualification requirements to access the RCF and RFI. Historically, small disasters have been much more frequent than large ones, measured by damage in relation to GDP. Accordingly, a low damage threshold would accommodate more disaster-related requests, thereby increasing likely financing demand. Data on the historic frequency and size of disasters provides a baseline for demand projections, but allowance should also be made for the possibility that disasters will become more frequent and damaging than in the past, including as a result of climate change.

- *Balance of payments need and access limits*. Demand for RFI and RCF financing depends on the scale of the urgent balance of payments need arising from a natural disaster that would be eligible for Fund financing under the RCF and RFI, and the capacity to meet these needs within each country's annual and cumulative access limits. For simplicity, estimates of financing demand have been calculated assuming that, where the damage threshold is met, urgent balance of payments needs will result in financing requests equivalent to maximum annual access under the RCF and/or RFI.[7] While cumulative access limits under the RCF and

[6] While the LIC facilities review would focus on the RCF, any changes to this facility would normally be proposed also for the RFI to preserve a symmetric approach to the financing of urgent BOP needs from exogenous shocks available to PRGT-eligible and other Fund members.

[7] In a few cases, countries impacted by severe disasters have not requested Fund financing, presumably because of access to alternative financing sources. This possibility is factored into financing demand. calculations by drawing on the past pattern of usage of Fund resources, excluding a small proportion of disasters for which Fund financing was not requested.

RFI could potentially constrain annual access, this consideration is difficult to model and is not factored into the calculations.[8] On balance, this approach likely overstates potential financing demand, contributing to a safety margin in the estimates. There is also the possibility that, where a large natural disaster occurs, the member will need a UCT-quality program supported under an arrangement which can be formulated and implemented, and hence that financing from the Fund would shift to other facilities and instruments.

- *Countries affected*. Demand for Fund financing under the RCF and RFI will depend on which countries are impacted by disasters. Since country size is related to Fund quota, it will be important whether future disasters impact small or large countries. Projections assume that the distribution of disasters by country size is comparable to that during 2000-16 (see Tables 2 and 3).[9] For countries seeking disaster-related financing, the balance between PRGT and GRA resources will depend on whether countries are PRGT-eligible and, if so, whether they are presumed blenders.[10] The past pattern of borrowers is again used for projections.[11]

- *Augmentations of existing arrangement*. Changes to the annual access limits under the RCF and RFI would not affect the annual and cumulative access limits applicable to requests for new arrangements or augmentations under existing Fund arrangements in the event of a large natural disaster (Table 1). However, a country with an existing Fund arrangement that is impacted by a large natural disaster might make a larger request for augmentation than formerly would have been the case, informed by the increase in annual access under the RCF and RFI for other countries impacted by large natural disasters. As noted above, application of the access policy to calibrate access amounts in individual cases to the scale of balance of payments would help guard against unwarranted high access.[12] Given this safeguard, this potential indirect impact on PRGT and GRA demand is expected to be small. However, for prudence, demand calculations have also been conducted assuming that, for severe disasters, requests for disaster-related augmentations under PRGT arrangements increase, on average, by one half of the increase in annual access under the RCF and RFI. To the

[8] Similarly, no allowance is made for the potentially constraining role of overall annual and cumulative access limits relevant for the use of PRGT and GRA resources.

[9] The current Fund quota of small and larger countries seeking disaster-related exogenous shocks financing during 2000-16 was SDR 18 and 270 million, respectively. This was slightly lower than the quotas of countries that did not seek disaster-related financing over the same period (SDR 29 and 315 million, respectively).

[10] For access to GRA resources by PRGT-eligible members, see IMF (2016a).

[11] Of the PRGT-eligible countries that sought exogenous shocks financing during 2000-2016, one-quarter are currently presumed blenders, compared to one-third of countries that did not seek disaster-related financing in 2000-2016. To this extent, using the past country sample may slightly overstate PRGT relative to GRA financing demand.

[12] During 2010-2016, disaster-related augmentations of Fund arrangements averaged 18 percent of quota, compared to disaster-related requests under the emergency financing instruments and facilities averaging 23 percent of quota (Tables 2-3).

extent that this overstates the impact, it provides a further cushion in the loan demand estimates.[13]

13. **The relationship between disaster damage thresholds and potential PRGT loan demand is explored in Table 4**. For a disaster damage threshold of 30 percent of GDP, projected additional PRGT loan demand is projected in the annual range of SDR 11-27 million, a figure that would rise to SDR 16-41 million for a damage threshold of 20 percent of GDP. For lower disaster damage thresholds, the additional PRGT loan demand would rise further—for example, to SDR 23-59 million for a threshold of 10 percent of GDP.

14. **An important "unknown" for financing demand is the risk of severe disasters in the largest PRGT-eligible countries.** Severe disaster damages (measured relative to GDP) are most often experienced by small and mid-sized developing countries. Thus, disaster damages of more than 20 percent of GDP occurred over the period 2000-2016 for just 10 PRGT-eligible countries, with Haiti having the largest access to PRGT resources based on existing quotas and blending rules (Chart 1). However, just one severe natural disaster in a larger PRGT-eligible country could multiply the loan demand estimates cited above. For example, the proposed increase in RCF access limits could result in additional PRGT loan demand of SDR 140-240 million for a severe natural disaster in the Democratic Republic of Congo, Ghana, Sudan, or Zimbabwe. While available data do not show a record of severe disasters in these countries,[14] a relatively low disaster damage threshold could leave PRGT loan demand vulnerable to rare, severely damaging disasters in this group of large PRGT-eligible countries.

15. **Given the above considerations, a disaster damage threshold of 20 percent of GDP is proposed**. The projected additional financing demand using such a threshold level, taken in combination with baseline PRGT demand projections, would remain consistent with the sustainable lending capacity of the PRGT (see below). Use of a lower damage threshold (such as 10 percent of GDP) would pose a more significant risk, as it would significantly increase the likelihood of additional demand for resources from larger PRGT-eligible countries, above and beyond the numbers cited in Table 4: for that reason, staff do not recommend use of a lower damage threshold.

16. **Additional financing demand under the GRA is projected to be small**. For disaster damage thresholds of 20 percent of GDP, the additional GRA demand is calculated at just SDR 4-11 million (only marginally higher than for a disaster damage threshold of 30 percent of GDP) (see Table 5). Additional GRA demand is modest in relation to the corresponding PRGT loan demand because the RFI has been used much less actively than the RCF (a trend that is assumed to

[13] No allowance has been made in this exercise for the possible impact of larger or more frequent natural disasters on the number of requests for new Fund arrangements or for augmentations under existing arrangements.

[14] Based on information in the EM-DAT database for the period 1968-2016, the largest disaster damages in these countries for which estimates are available were in the range 0.1-2.6 percent of GDP—specifically, DRC (0.1 percent of GDP, January 2002); Sudan (1.0 percent of GDP, July 2003), Zimbabwe (2.4 percent of GDP, February 2003), and Ghana (2.6 percent of GDP, July 1968).

continue). Even where PRGT-eligible countries are presumed to borrow under the RFI on account of blending rules, these countries have typically experienced small disasters in relation to GDP, and would thus add little to GRA demand.[15]

PRGT SUSTAINABILITY

17. **The strategy of the self-sustaining PRGT, approved in September 2012, rests on three pillars:** (i) a base average annual lending capacity of about SDR 1¼ billion; (ii) contingent measures which can be activated when average financing needs exceed the base envelope by a substantial margin for an extended period; and (iii) the expectation that all future modifications to LIC facilities be designed in a manner that is consistent with maintaining self-sustainability.[16]

18. **A damage threshold of 20 percent of GDP should not pose significant risks to the robustness of PRGT self-sustainability for projected demand under a range of plausible circumstances.** For disaster outcomes in line with recent historical experience, the additional lending implied by the proposal could increase annual demand for PRGT resources by 1-2 percent relative to current demand projections over the next decade (Text Table 1). The estimated demand impact rises to 4-5 percent of currently-projected loan demand in the event of a significant rise in both disaster frequency and magnitude. These projections would imply additional average annual subsidy requirements of about SDR 2-6 million over the next decade. The proposal's relatively modest projected impact on incremental loan demand and subsidy requirements would leave the PRGT's self-sustained lending capacity target of SDR 1¼ billion intact, and thus be consistent with the three-pillar strategy under a broad range of demand scenarios.

[15] Moreover, while all PRGT-eligible countries are entitled to request GRA resources, the financing projections assume that they will request PRGT resources, where eligible to do so.

[16] For detail regarding the strategy for a self-sustaining PRGT see: Update on the Financing of the Fund's Concessional Assistance and Debt Relief to Low-Income Member Countries, see (IMF, 2017).

Table 1. Projected Additional PRGT Loan Demand, 2018–2027

	Initial impact	2018-2027 1/		
		Low Case	**Mid-Point**	**High-Case**
Baseline with disaster damage threshold of 20 percent of GDP 2/	15.9	18	21	24
(percentage increase in PRGT demand)		*2%*	*2%*	*1%*
Alternative scenario: more frequent and larger disasters 2/	40.6	45	48	58
(percentage increase in PRGT demand)		*5%*	*4%*	*4%*
Memo Item:				
PRGT baseline demand projection 3/				
(2018-2027 average) 3/		885	1,244	1,603

Sources: IMF staff estimates.
1/ Annual average additional PRGT loan demand taking into account projected loan demand growth over 2018-2027. The projections reflect the 50 percent increase in norms and limits approved in 2015, and for PRGT-eligible countries presumed to blend, one-third of access is assumed to come from the PRGT.
2/ The baseline and alternative scenarios correspond to the baseline and Scenario 2 in Table 4 with a disaster damage threshold of 20 percent of GDP. The projections reflect additional PRGT loan demand for RCF requests and ECF augmentations.
3/ PRGT baseline demand projections is based on Update on the Financing of the Fund's Concessional Assistance and Debt Relief to Low-Income Member Countries, see (IMF, 2017).

19. **Future loan demand bears close monitoring, and vigilance will be required to ensure that prompt actions under the three-pillar strategy can be initiated if needed.** As discussed in the preceding section, RCF and RFI demand will vary from year to year, depending on the size and frequency of disasters and the size of the members' urgent BOP needs, and whether in the given cases, a UCT-quality program supported under a Fund arrangement is needed and feasible in line with the RCF and RFI qualification requirements. Peak and average financing demand may also increase, over time, if climate change results in more frequent and damaging disasters that give rise to urgent BOP needs leading to financing requests from the Fund. Monitoring of demand for Fund financing will be important to confirm the appropriateness of the enlarged RCF and RFI access windows relative to the self-sustaining capacity of the PRGT and to guide any necessary further reforms (either to tighten or augment access to disaster-related financing).

CONCLUSIONS

20. **The proposals in this paper would be of important value to countries impacted by severe natural disasters**. Although very large disasters are rare, they give rise to requests for Fund financing to meet urgent balance of payments needs that exceed the current annual access limits under the RCF and RFI. In these same circumstances, the member's urgent focus on disaster relief and recovery can preclude dedicating scarce policy making resources to discussions of a Fund

arrangement, where access limits would be less constraining. To address this gap in the safety net, it is proposed to establish a large natural disaster window under the RCF and RFI to increase the current maximum annual access limit under these instruments from 37.5 to 60 percent of quota for countries facing urgent balance of payments needs arising from a natural disaster that gives rise to damages equivalent to at least 20 percent of GDP. As is the case at present for qualification to the exogenous shocks window of the RCF, qualification for access under the large natural disaster window of the RCF and RFI will require that the member's existing and prospective policies be sufficiently strong to address the natural disaster shock.

21. **The policy change would maintain the Fund's basic lending architecture**. No change is proposed to the cumulative access limits under the RCF and RFI, which would preserve current incentives for countries to seek financing through arrangements with UCT-quality conditionality and qualification under these facilities will continue to be limited to cases where a UCT-quality arrangement is not feasible or appropriate. There will be an opportunity to discuss the appropriateness of the current cumulative access limits under the RCF an RFI in the context of the comprehensive review of LIC facilities set for 2018.

22. **The policy change would have only a limited impact on PRGT loan demand**. Requests for higher access under the RCF and/or RFI in the event of severe disasters would be relatively uncommon, and typically by smaller countries with low quotas. For a range of disaster projections, including for scenarios simulating very large increases in the frequency and size of natural disasters relative to recent historical experience, additional PRGT loan demand would be within 1-5 percent relative to current PRGT baseline demand projections over the next decade. This should not pose significant risks to the robustness of PRGT self-sustainability. Additional demand for GRA resources would be limited.

Proposed Decisions

The following decisions, which may be adopted by a majority of the votes cast, are proposed for adoption by the Executive Board:

Decision I. Amendments to the Rapid Credit Facility

Section II, paragraph 2(b) shall be amended to read as follows:

> "(b) The access of each eligible member under the RCF shall be subject to an annual limit of 18.75 percent of quota and a cumulative limit of 75 percent of quota, net of scheduled repayments; provided that: (A) the annual and cumulative access limits under the RCF shall be 37.5 percent of quota and 75 percent of quota, respectively, net of scheduled repayments, in cases where (i) the member requests assistance under the RCF to address an urgent balance of payments need resulting primarily from a sudden and exogenous shock, and (ii) the member's existing and prospective policies are sufficiently strong to address the shock; and (B) the annual and cumulative access limits under the RCF shall be 60 percent of quota and 75 percent of quota, respectively, net of scheduled repayments, where (i) the member requests assistance under the RCF to address an urgent balance of payments need resulting from a natural disaster that occasions damage assessed to be equivalent to or to exceed 20 percent of the member's gross domestic product (GDP) and (ii) the member's existing and prospective policies are sufficiently strong to address the natural disaster shock Outstanding credit by a member under the rapid-access component of the ESF or outstanding purchases from the General Resources Account under emergency post conflict/natural disaster assistance covered by Decision No. 12341-(00/117), shall count towards the annual and cumulative limits applicable to access under the RCF. With effect from July 1, 2015, any purchases from the General Resources Account under the Rapid

Financing Instrument shall count towards the annual and cumulative limits applicable to access under the RCF."

Decision II. Amendments to the Rapid Financing Instrument

Paragraph 5 of the Rapid Financing Instrument (RFI) Decision, Decision No. 15015-(11/112), November 21, 2011, as amended, shall be amended to read as follows:

"5. Assistance under this Decision shall be made available to members in the form of outright purchases. Access by members to resources under this Decision shall be subject to (a) an annual limit of 37.5 percent of quota, and (b) a cumulative limit of 75 percent of quota, net of scheduled repurchases, provided that the annual access limit shall be 60 percent of quota where (i) the member requests assistance under the RFI to address an urgent balance of payments need resulting from a natural disaster that occasions damage assessed to be equivalent to or to exceed 20 percent of the member's gross domestic product (GDP), and (ii) the member's existing and prospective policies are sufficiently strong to address the natural disaster shock."

Proposed Decisions—Redlined Version

Decision I. Amendments to the Rapid Credit Facility

Section II, paragraph 2(b) shall be amended to read as follows:

> "(b) The access of each eligible member under the RCF shall be subject to an annual limit of 18.75 percent of quota and a cumulative limit of 75 percent of quota, net of scheduled repayments; provided that: (A) the annual and cumulative access limits under the RCF shall be 37.5 percent of quota and 75 percent of quota, respectively, net of scheduled repayments, in cases where (i) the member requests assistance under the RCF to address an urgent balance of payments need resulting primarily from a sudden and exogenous shock, and (ii) the member's existing and prospective policies are sufficiently strong to address the shock; <u>(B) the annual and cumulative access limits under the RCF shall be 60 percent of quota and 75 percent of quota, respectively, net of scheduled repayments, where (i) the member requests assistance under the RCF to address an urgent balance of payments need resulting from a natural disaster that occasions damage assessed to be equivalent to or to exceed 20 percent of the member's gross domestic product (GDP) and (ii) the member's existing and prospective policies are sufficiently strong to address the natural disaster shock</u>. Outstanding credit by a member under the rapid-access component of the ESF or outstanding purchases from the General Resources Account under emergency post conflict/natural disaster assistance covered by Decision No. 12341-(00/117), shall count towards the annual and cumulative limits applicable to access under the RCF. With effect from July 1, 2015, any purchases from the General Resources Account under the Rapid Financing Instrument shall count towards the annual and cumulative limits applicable to access under the RCF."

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References

International Monetary Fund, 2014, "Staff Guidance Note on the Fund's Engagement with Small Developing States", (Washington).

———, 2015a, "Proposal to Enhance Fund Support for Low-Income Countries Hit by Public Health Disasters", (Washington).

———, 2015b, "Financing for Development: Enhancing the Financial Safety Net for Developing Countries", (Washington).

———, 2016a, "Financing for Development: Enhancing the Financial Safety Net for Developing Countries—Further Considerations" (Washington).

———, 2016b, "Update on the Financing of the Fund's Concessional Assistance and Debt Relief of Low-Income Countries", (Washington).

———, 2016c, "Small States' Resilience to Natural Disasters and Climate Change—Role for the Fund", (Washington).

———, 2017, "Update on the Financing of the Fund's Concessional Assistance and Debt Relief of Low-Income Countries", (Washington).

Annex I. Measuring Natural Disaster Damages

1. **Proposed qualification for the higher access under the RCF and RFI would be based on natural disaster damage of at least 20 percent of GDP**. Disaster damage, for these purposes, is defined as the combination of (a) destruction of physical assets due to a natural disaster, and (b) projected ongoing economic losses during the period of recovery from the natural disaster. For the second component, economic losses refer to foregone economic production and incomes as a result of damage to infrastructures and other economic assets. These projected losses are based on gap analysis relative to pre-disaster potential growth. The projected period of foregone production and incomes may last several years until full economic recovery is achieved.[1]

2. **In estimating disaster damage for purposes of qualification for the new higher access large natural disaster window of the RCF and RFI, Fund staff will draw on a range of information including assessments prepared by the World Bank and other organizations**. Collaborative arrangements between international organizations are already in place for the rapid evaluation of damages and losses following natural disasters, and would typically be available for purposes of assessing qualification relative to the proposed natural disaster damage threshold.

3. **A standard methodology has been developed for assessing disaster damage and losses**. It was initially developed in 1972 by the UN Economic Commission for Latin America and the Caribbean (ECLAC) to assess the socio-economic consequences of frequent disasters in the region's small states. The methodology was adopted by the World Bank for purposes of conducting Damage and Loss Assessments (DaLA) for any country—including advanced economies (subject to reimbursement of costs). The methodology estimates damages and losses at the sector level and aggregates results to identify the cumulative impact of disasters. Sector methodologies were informed by specialized UN agencies, with that for agriculture developed by Food and Agriculture Organization (FAO) and that for housing by UN Habitat.

4. **The established methodology has recently been integrated into the Post-Disaster Needs Assessment (PDNA) tool**. The World Bank, European Union (EU), and United Nations Development Group (UNDG) developed in 2008 this shared tool for country-led damage and loss assessments.[2] The PDNA is ultimately owned by the national authorities, but involves inputs from the private sector, civil society, and international partners, including the Bank, EU, UNDG and the IMF. Information used to estimate damages and losses includes surveys and the analysis of satellite

[1] Although a full recovery of production and incomes from the natural disaster could take several years, a member would normally only qualify for the RCF if either (i) has a balance of payments need that is expected to be resolved within one year with no major policy adjustments being necessary; or (ii) lacks the capacity to implement a UCT-quality economic program owing to its limited policy implementation capacity or the urgent nature of its balance of payments need.

[2] The guidelines were developed in the context of a series of institutional agreements on post-crisis cooperation agreed between the EU, WB and UNDG in 2008.

information. The PDNA also draws on climatic, metrological and geographical scientific institutions to identify post-disaster risks and vulnerabilities.

5. **PDNA reports are normally available within 3 to 6 weeks**. Once the PDNA report is approved by the government it is published as an official document. The PDNA is commonly presented in a donor conference to underpin a recovery and reconstruction strategy and to mobilize external resources.

6. **Rapid Damage and Impact Assessments (RDIA)**. The World Bank uses a similar methodology to produce RDIAs.[3] These can be produced within one to two weeks, but are subject to revision as more information is obtained, in contrast to PDNAs, for which published estimates are not revised.

7. **These and other estimates of disaster damage have been available for a wide range of natural disasters**. PDNAs, RDIAs, ECLAC reports, and other multi-agency assessments are prepared for a wide range of types and sizes of natural disasters. In general, they are initiated at the request of the government, and relate to disasters where damage estimates are needed as the basis for international support. Disaster damage assessments have typically been available for the large natural disasters proposed as qualifying for higher access under the RCF and RFI (table below).

Country	Disaster date	Event	Damage estimate (% of GDP)	Source of disaster estimate
Haiti	Hurricane Matthew	Oct. 2016	23	RDIA
Nepal	Earthquake	Apr. 2015	33	PDNA
Dominica	Tropical Storm Erika	Aug. 2015	96	RDIA
Vanuatu	Cyclone Pam	Mar. 2015	60	PDNA
Sierra Leone	Ebola	2014-2015	22	JPAR 1/
Samoa	Cyclone Evan	Dec. 2012	30	PDNA
St Lucia	Hurricane Tomas	Oct. 2010	34	ECLAC
Kenya	Drought	2011	29	PDNA
Haiti	Earthquake	Jan. 2010	121	PDNA
Dominica	Hurricane Dean	Aug. 2007	20	ECLAC

1/ Joint Preliminary Assessment Report of the Government of Sierra Leone with the UNDP, IMF, World Bank, and African Development Bank.

8. **Close collaboration will be needed with the World Bank and other organizations**. Where a member experiencing a natural disaster is expected to request access under the proposed higher annual RCF or RFI access limits for large natural disasters, Fund staff should explore with the World Bank, UNDG, or other relevant partners whether a disaster damage assessment is being

[3] The World Bank is preparing a methodology note on RDIA to be available early 2018.

prepared.[4] Where necessary, staff should encourage the authorities to initiate a disaster damage assessment under one of the established frameworks. Given that post-disaster assessments are commonly developed with international support after large disasters, requests for higher access under the RCF and RFI in the absence of such information would likely be uncommon. This would not preclude a request for higher access under the RCF or RFI, however. Where no damage assessment is being prepared under the established frameworks, Fund staff could take the lead in developing best estimates of disaster damage and ongoing economic losses, using information provided by the authorities, and to the extent possible, working with the World Bank and other international partners to validate and strengthen the estimates.

9. **In reporting disaster damage estimates, Fund staff would highlight key aspects of the calculations**. In supporting a request for higher annual access following a large natural disaster, documentation for the financing request would describe the nature of the estimated damage and ongoing economic losses.

[4] The practice of relying on external expertise for disaster damage assessments follows that adopted for the Catastrophe Containment window under the CCRT where, in making a determination of a qualifying public health disaster, the Fund may draw on the assessments of the health situation and outlook made by national authorities, the World Health Organization, the World Bank, and other relevant agencies (IMF, 2015a).

Table 1. Summary of Norms, Limits, and Procedural Safeguards

Access limits 1/	*Cumulative limits*	*Annual limits*
All PRGT facilities		
Normal	225	75
Exceptional	300	100
RCF		
Normal 2/	75	18.75
Exogenous shocks window /2	75	37.5
Large natural disasters 2/	75	60
RFI		
Normal 2/	75	37.5
Large natural disasters 2/	75	60
SCF (precautionary)		
Average annual		37.5
At approval		56.25
Norms *3/*		*Access per arrangement*
3-year ECF 4/		
High access		90
Low access		56.25
18-month SCF 5/		
High access		90
Low access		56.25
Blending proportions *(PRGT:GRA) for members presumed to blend 6/*		1:2 with concessional access capped at the applicable norm (all GRA thereafter)
Procedural safeguards		
For total access of 60 percent of quota or more in any 24-month period:		
DSA update 7/		
For total access of 135 percent of quota or more in any 36-month period:		
Informal Board Meeting in advance of new PRGT request /8		

1/ The new access limits in effect January 26, 2016 do not affect disbursements under arrangements approved prior to that date and any changes in access levels is to be justified by balance of payments needs in accordance with the standard policies for augmentation of access amounts. Outstanding PRGT credit in existence as of January 26, 2016 counts towards the current annual and cumulative PRGT access limits.
2/ Any RFI access also counts towards these limits.
3/ High access norms apply if PRGT credit outstanding is less than 75 percent of quota. Norms are not applicable if PRGT credit outstanding >150 percent of quota.
4/ For four-year ECF arrangements, access for the fourth year is expected to be set in line with the average annual access corresponding to the norm that would otherwise have applied to a successor three-year ECF arrangement. For countries, whose outstanding PRGT access is above 150 percent of quota, the norms do not apply.
5/ For SCF arrangements of any other length, the norms will be proportionately adjusted to keep annualized average access unchanged.
6/ For the RCF, which has no norm, the cap on access to concessional resources is the annual limit, while for the SCF treated as precautionary this cap applies to the average annual access limit.
7/ A DSA update is also required for any PRGT financing request if it involves exceptional access to concessional resources or involves a member country with a high risk of debt distress or in debt distress.
8/ An early informal Board meeting is also required if the financial request would involve exceptional access to concessional financing.

Table 2. IMF Financing to Small States Hit by Natural Disasters, 2000–2016

Country	Year [1]	Event	Damage (% of GDP) [2]	IMF Financing (% of Quota)[3]	IMF Financing (% of GDP)	IMF Financing (% of Damage)	Instrument Used [4]	PRGT-eligible [5]
Small States [7]								
RCF/RFI/ENDA								
Dominica	2015	Floods	96	53.5	1.7	1.7	RCF	Y
Vanuatu	2015	Cyclone	60	71.4	3.1	5.1	RFI/RCF blend	Y
St. Vincent and Grenadines	2014	Floods	15	35.5	0.9	5.9	RFI/RCF blend	Y
Samoa	2013	Cyclone	30	35.8	1.1	3.6	RCF	Y
Dominica	2012	Floods	7	17.8	0.7	10.1	RCF	Y
St. Vincent and Grenadines	2011	Floods	3.6	10.6	0.3	8.2	RCF	Y
St. Vincent and Grenadines	2011	Hurricane	5	17.7	0.5	9.5	RCF	Y
St. Lucia	2011	Hurricane	34	25.0	0.6	1.9	RCF/ENDA blend	Y
St. Kitts and Nevis	2009	Hurricane	NA	17.8	0.5	NA	ENDA	
Dominica [6]	2009	Hurricane	15	28.5	1.1	3.0	ESF-RAC	Y
Samoa	2009	Earthquake and Tsunami	15	35.8	1.4	10.2	ESF-RAC	Y
Belize	2009	Hurricane	4.8	17.6	0.6	11.5	ENDA	
Dominica	2008	Hurricane	20	17.8	0.7	3.5	ENDA	Y
Maldives	2005	Tsunami	50	19.3	0.6	1.1	ENDA	Y
Grenada	2004	Hurricane	200	17.8	0.7	0.4	ENDA	Y
Grenada	2003	Hurricane	2	17.9	0.7	33.8	ENDA	Y
ECF-augmentation								
Djibouti	2012	Drought	NA	30.0	1.0	NA	ECF-augmentation	Y

Source: IMF staff reports, WB Post-Disaster Needs Assessment reports, EM-DAT, WEO, and staff calculations.

1/ Reflects the year when Board approved the arrangement or the augmentation.

2/ Source: EM-DAT, IMF Staff Reports and WB post-disaster needs assessment reports.

3/ Reflects the fourteenth quota review of January 26, 2016.

4/ RCF stands for Rapid Credit Facility, RFI - Rapid Financing Instrument, ENDA - Emergency Post Natural Disaster Assistance, ESF - Exogenous Shock Facility, ECF - Extended Credit Facility.

5/ Eligibility to Use the Fund's Concessional Facilities for Concessional Financing, 2015.

6/ The damage reported reflects damage of 15 percent of GDP associated with Hurricane Omar.

7/ Small states are defined as countries with populations fewer than 1.5 million (IMF, 2014). The IMF has 43 small states members, of which 34 are small developing countries, including micro states. The population size of micro states is below 200,000, and includes the Republic of Nauru which joined the IMF in April 2016.

Table 3. IMF Financing to Larger States Hit by Natural Disasters, 2000–2016

Country	Year [1]	Event	Damage (% of GDP) [2]	IMF Financing (% of Quota) [3]	IMF Financing (% of GDP)	IMF Financing (% of damage)	Instrument Used [4]	PRGT-eligible [5]
Larger States [11]								
RCF/ENDA								
Haiti	2016	Hurricane	23	18.8	0.51	2.2	RCF	Y
Nepal	2015	Earthquake	32.8	22.7	0.2	0.7	RCF	Y
Gambia, The	2015	Ebola	4.5	12.5	1.2	27.2	RCF	Y
Liberia	2015	Ebola	18.4	12.5	2.2	12.1	RCF	Y
Guinea	2014	Ebola	NA	12.5	0.6	NA	RCF	Y
Mali	2013	Drought	NA	6.4	0.1	NA	RCF	Y
Pakistan	2010	Floods	5.7	14.6	0.3	4.5	ENDA	
Bangladesh	2008	Cyclone	1.7	12.5	0.2	12.6	ENDA	Y
Kyrgyz Republic	2008	Earthquake	0.3	37.5	2.1	701.6	ESF-HAC	Y
Sri Lanka	2005	Tsunami	5.4	17.9	0.6	11.5	ENDA	
Malawi	2002	Food Crisis	NA	12.5	0.6	NA	ENDA	Y
Haiti	2010	Earthquake	120.8	108.7	4.0	3.4	PCDR	Y
ECF/SBA-augmentation								
Malawi	2016	Drought	NA	25.0	0.9	NA	ECF-augmentation	Y
Sierra Leone	2014/2015	Ebola	21.6	60.2	4.2	19.4	ECF-augmentation	Y
Guinea	2015	Ebola	7.5	21.1	0.9	12.6	ECF-augmentation	Y
Liberia	2014	Ebola	NA	12.5	2.4	NA	ECF-augmentation	Y
Bosnia and Herzegovina [6]	2014	Floods	2.4	31.9	0.7	29.4	SBA-augmentation	
Côte d'Ivoire	2014	Ebola	NA	20.0	0.6	NA	ECF-augmentation	Y
Lesotho	2012	Flood	2.6	12.5	0.6	20.2	ECF-augmentation	Y
Kenya	2011	Drought	28.8	30.0	0.6	2.1	ECF-augmentation	Y
Haiti	2010	Earthquake	120.8	40.0	1.5	1.2	ECF-augmentation	Y
Burkina Faso [7]	2009	Flood	1.8	27.5	0.6	34.0	ECF-augmentation	Y
Haiti	2009	Hurricanes, Floods	13.7	15.0	0.6	4.2	ECF-augmentation	Y
Togo	2008	Flood	NA	12.5	0.9	NA	ECF-augmentation	Y
Nicaragua	2008	Hurricane, Flood	8.4	2.5	0.1	1.4	ECF-augmentation	Y
Niger	2005	Drought	NA	15.0	0.9	NA	ECF-augmentation	Y
Kenya	2004	Drought	NA	9.2	0.4	Na	ECF-augmentation	Y
Zambia	2002	Drought	NA	2.5	0.8	NA	ECF-augmentation	Y
Chad [8]	2001	Food Emergencies	0.1	4.0	0.4	712.9	ECF-augmentation	Y
Malawi [9]	2001	Food Crisis	0.2	3.4	0.2	89.3	ECF-augmentation	Y
Kenya	2000	Drought	NA	7.4	0.4	NA	ECF-augmentation	Y
Mozambique	2000	Floods	9.0	12.5	0.8	8.9	ECF-augmentation	Y
Madagascar [10]	2000	Cyclones	0.2	10.0	0.8	357.5	ECF-augmentation	Y

Source: IMF staff reports, WB post-disaster needs assessment reports, EM-DAT, WEO, and staff calculations.
1/ Reflects the year when Board approved the arrangement or the augmentation.
2/ Source: EM-DAT, IMF Staff Reports and WB post-disaster needs assessment reports.
3/ Reflects the fourteenth quota review of January 26, 2016.
4/ RCF stands for Rapid Credit Facility, RFI-Rapid Financing Instrument, ENDA-Emergency Post Natural Disaster Assistance, ESF-Exogenous Shock Facility, PCDR—Post-Catastrophe Debt Relief Trust, and ECF-Extended Credit Facility.
5/ Eligibility to Use the Fund's Concessional Facilities for Concessional Financing, 2015.
6/ Bosnia and Herzegovina experienced three floods in 2014. The damage figure reported in the table covers May 2014 flood.
7/ Burkina Faso experienced two floods in 2009. The damage figure reported in the table covers September 2009 flood.
8/ Food emergencies arose from three events—epidemic, flood, and drought. EM-DAT provided data for damages associated with the flood event of $1 million.
9/ Food crisis arose from five events—two floods and 3 epidemics. EM-DAT provided data for damages associated with the January 2001 flood event of $6.7 million.
10/ Madagascar experienced two cyclones in 2000. The damage figure reported in the table covers February 2000 cyclone.
11/ Larger states are defined as countries with a population over 1.5 million, excluding advanced economies.

Table 4. New PRGT Loan Demand Based on Higher RCF Annual Access Limits

		Disaster damage threshold			
		No threshold	**10% of GDP**	**20% of GDP**	**>30% of GDP**
		(SDR millions, unless otherwise indicated)			
Baseline (in line with 2000-2016 experience)		**50.2**	**22.5**	**15.9**	**11.4**
RCF requests		26.6	13.8	9.4	9.3
Small states		2.5	1.8	1.4	1.2
Larger states		24.1	12.1	8.0	8.0
Augmentations to SCF/ECF arrangements		23.6	8.7	6.5	2.2
Scenario 1 (disaster-related financing requests twice as frequent)		**100.4**	**45.0**	**31.9**	**22.9**
RCF requests		53.1	27.6	18.9	18.5
Small states		4.9	3.5	2.8	2.5
Larger states		48.2	24.1	16.1	16.1
Augmentations to SCF/ECF arrangements		47.3	17.3	13.0	4.3
Scenario 2 (requests twice as frequent, and disasters larger by 5% of GDP)		**100.4**	**58.7**	**40.6**	**27.2**
RCF requests		53.1	28.3	27.6	18.5
Augmentations to SCF/ECF arrangements		47.3	30.3	13.0	8.7
Memorandum items:					
Single largest potential sources of PRGT loan demand 1/					
Congo, Democratic Republic of	239.9				
Ghana	166.1				
Zimbabwe	159.0				
Sudan	141.8				

Sources: IMF staff estimates.

1/ Figures represent possible additional PRGT loan demand based on the difference between RCF access at 37.5 and 60 percent of quota.

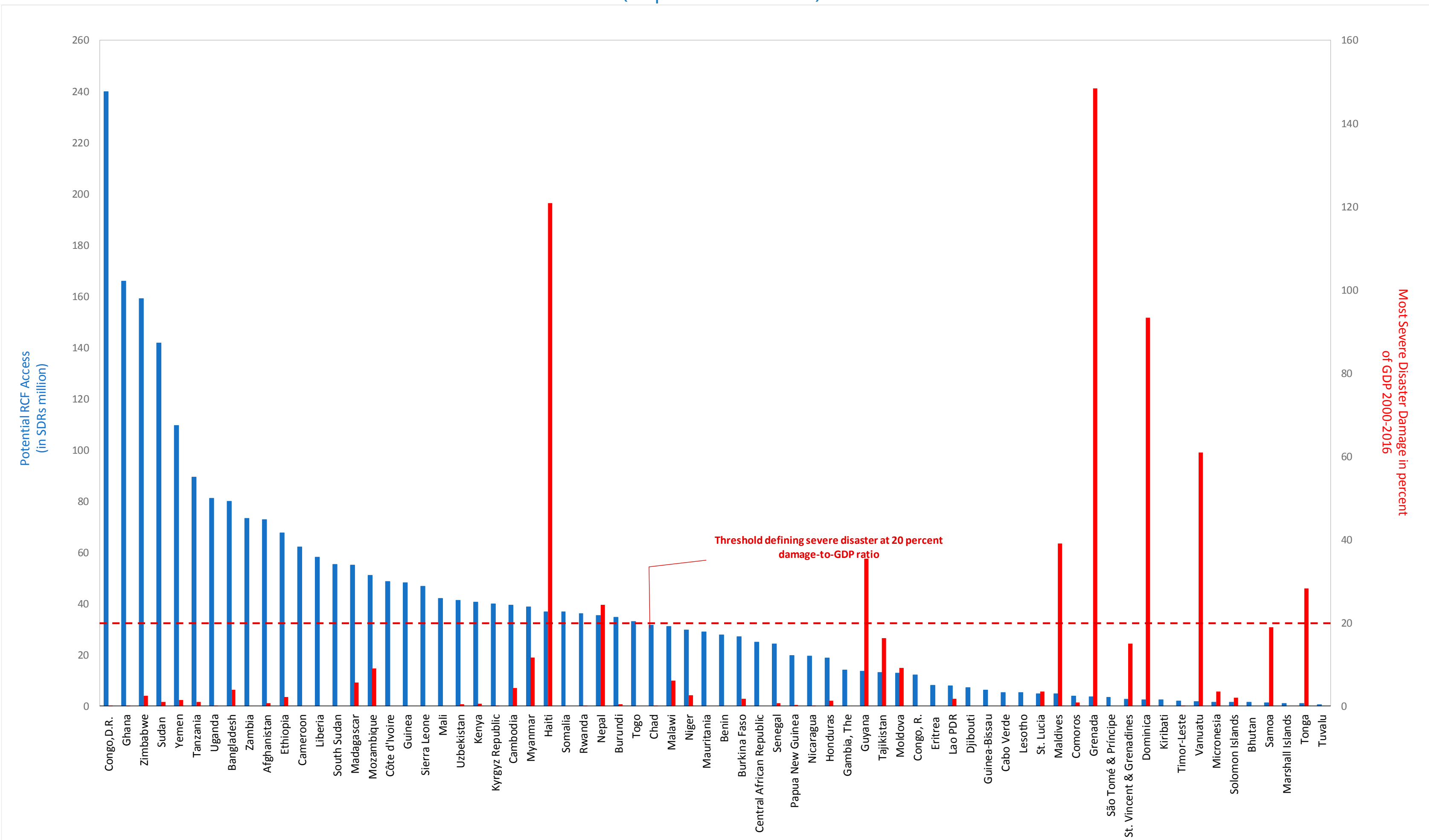
Table 5. New GRA Resource Demand Based on Higher RFI Annual Access Limits

	Disaster damage threshold			
	No threshold	**10% of GDP**	**20% of GDP**	**>30% of GDP**
	(SDR millions, unless otherwise indicated)			
Baseline (in line with 2000-15 experience)	50.1	5.7	3.9	3.8
RFI requests	48.2	5.7	3.9	3.8
Small states	1.5	0.7	0.6	0.5
Larger states	46.7	5.0	3.3	3.3
Augmentations to SBA/EFF arrangements	1.9	0.0	0.0	0.0
Scenario 1 (disaster-related financing requests twice as frequent)	100.2	11.4	7.8	7.6
RFI requests	96.4	11.4	7.8	7.6
Small states	3.0	1.4	1.1	1.0
Larger states	93.4	10.0	6.7	6.7
Augmentations to SBA/EFF arrangements	3.7	0.0	0.0	0.0
Scenario 2 (requests twice as frequent, and disasters larger by 5% of GDP)	100.2	61.3	11.4	7.6
RFI requests	96.4	61.3	11.4	7.6
Augmentations to SBA/EFF arrangements	3.7	0.0	0.0	0.0

Sources: IMF staff estimates.

Figure 1. Potential RCF Access for Most Severe Disaster Damage, 2000–2016[1/]

(In percent of GDP)



Source: EM-DAT database, and IMF staff calculations.

1/ Potential RCF access for PRGT eligible countries is calculated as the difference between the current annual access limit (37.5 percent of quota) and the proposed limit for severe disasters (60 percent of quota). For presumed blenders, two-thirds of this access is assumed to be met through GRA resources.