

MULTIDIMENSIONAL FRAGILITY IN 2020

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Working Paper

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Abstract

This analysis of the 2020 OECD multidimensional fragility framework is a background paper for *States of Fragility 2020*. It provides a snapshot of the state of fragility in the world today, paying particular attention to the 57 fragile contexts on the framework. The paper starts by unpacking the heterogeneity among fragile contexts. It then reviews the layers, trajectories and clusters of fragility. Thinking in systems, and the states of fragility within systems, provides a conceptual foundation to interpret this analysis and guide targeted and differentiated approaches to engagement in fragile contexts. Focusing international policy attention on these fragile contexts is important to ensure sustainable development progress that leaves no one behind.

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Abbreviations and acronyms

DAC	Development Assistance Committee (OECD)
EAP	East Asia and the Pacific
HDP	Humanitarian-development-peace
INFORM	Index for Risk Management
LAC	Latin America and the Caribbean
LDC	Least developed country
MENA	Middle East and North Africa
OECD	Organisation for Economic Co-operation and Development
PCA	Principal component analysis
UN	United Nations
UN DESA	United Nations Department of Economic and Social Affairs

Executive summary

This paper analyses results from the 2020 edition of the OECD's multidimensional fragility framework. Its snapshot of the state of fragility in the world today updates the analysis from the 2016 and 2018 States of Fragility reports. As a background paper to the latest report in the series, *States of Fragility 2020*, its aim is to inform the OECD Development Assistance Committee (DAC) members' global work on fragility. Its primary intended audience is the DAC. A secondary audience is researchers and practitioners who work on and in fragile contexts.

As fragility itself has changed, so has the understanding of it. The OECD began by conceptualising fragility as a binary: contexts were either fragile or they were not. It then adopted a more expansive and multidimensional understanding of fragility, namely that multiple factors shape fragility and that understanding these factors can help identify pathways in and out of fragility. This paper goes a step further. It views fragility as an emergent property of a complex system, where actors will not be able to predict impact or behaviours in a linear way and will instead have to rely a combination of best guesses, fast feedback and adaptation to get results. This perspective on fragility can inform pathways from “fragility to resilience”, which involves identifying complex and interacting risks at a high level, understanding their root causes, and developing strategies to address them. Such a perspective is especially important as policy makers and practitioners confront the impact of COVID-19 in fragile contexts. In 2020, 26 million additional people are expected to fall into extreme poverty due to COVID-19, according to author calculations of the World Bank's country-level projections (Lakner et al., 2020^[1]). Addressing COVID-19 will require practitioners to think broadly, using available evidence, and adapt to changing circumstances as the situation unfolds in fragile contexts.

The paper is organised into three chapters and two annexes. It provides an overview of the 57 fragile contexts in the 2020 OECD fragility framework (Chapter 1); presents the underlying theoretical approach behind the framework to guide DAC members' analysis of fragility (Chapter 2); and analyses characteristics, typologies and trajectories of fragility (Chapter 3). Annex A provides more information on the methodology for the fragility framework. Annex B features a case study of subregional fragility in the African Great Lakes subregion.

Key messages from each chapter:

- **Chapter 1:** The 57 fragile contexts, categorised as such among the 175 analysed, are a diverse group spanning regions, income groups and thematic priorities. In sub-Saharan Africa, 86% of people are living in conditions of fragility, as are 90% of people in least developed countries. Fragility and its consequences are complex and multidimensional. Understanding how to navigate this complexity can inform better interventions that address the root causes of fragility and support fragile contexts on their pathways to sustainable development and peace.
- **Chapter 2:** Systems thinking provides a framework to understand, interpret and address fragility and its root causes in order to support movements from fragility to resilience. Such movements are not straightforward nor linear. Rather, fragility emerges from a complex interaction of risks and coping capacities, which underscores the importance of pursuing holistic approaches that embrace

complexity, adaptation and resilience. The fragility framework offers a language to guide systems thinking in practice. Systems thinking can help actors consider the broader consequences of their interventions and support initiatives that address the multidimensionality of risks and coping capacities shaping fragility.

- **Chapter 3:** The OECD fragility framework provides an avenue to analyse layers, trajectories and clusters of fragility. Globally, fragility is characterised by a widening gap between extremely fragile contexts and the rest of the world. If such trends continue into the next decade, the furthest behind risk being left further behind. Fragility is pervasive and resilient across various systems and subsystems and over time. Addressing it thus requires merging global and local perspectives to unpack variation and facilitate differentiated approaches, thereby reconciling complexity with simplicity. Particularly, it is important to consider regional, subregional and subnational drivers of fragility, as each layer has implications for how actors navigate fragility to address its root causes. Since *States of Fragility 2018*, five contexts have left the framework and four have entered it.

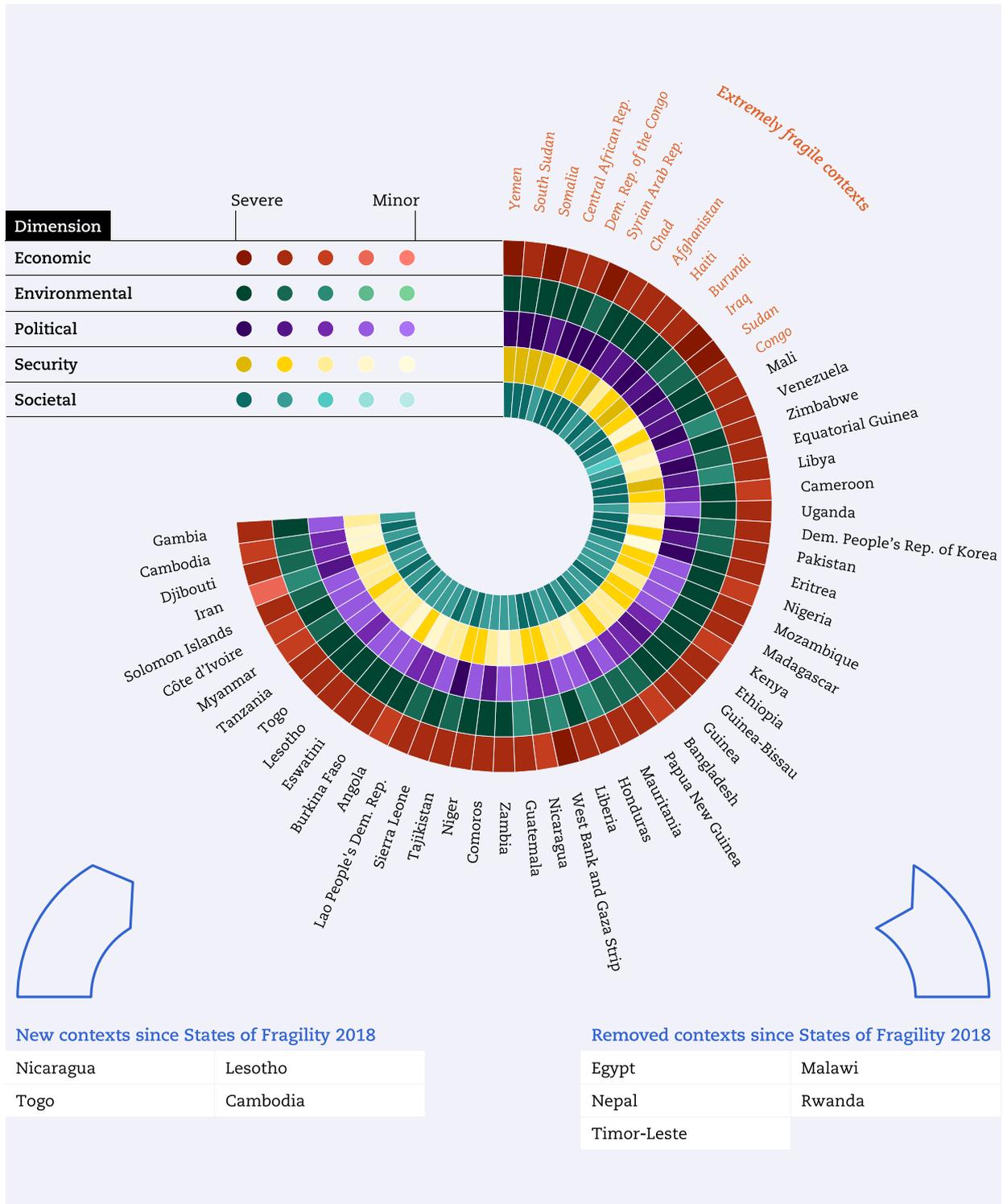
1 Introducing the 57 fragile contexts in the 2020 OECD fragility framework

The 2020 fragility framework covers 57 fragile contexts, compared to 58 in the 2018 States of Fragility report and 56 in the 2016 States of Fragility report. These contexts account for 23% of the world's population today (UN DESA, 2019^[2]). Of the 57 contexts, 13 are extremely fragile and 44 are other fragile.¹ The number of fragile contexts and their varied attributes reflect the fact that fragility is multidimensional and complex (OECD, 2018^[3]). Since 2016, the OECD has defined fragility as “the combination of exposure to risk and insufficient coping capacity of the state, system, and/or communities to manage, absorb, and mitigate those risks” (OECD, 2018^[3]; OECD, 2016^[4]). Each context has its unique combination of risks and coping capacities that contribute or offer resilience to fragility. Chapters 2 and 3 provides in-depth discussion of the complexity of fragility that is inherent not only to contexts but also to the international system and its subsidiary parts including at the regional, subregional, national, and subnational level, as the current coronavirus (COVID-19) pandemic has demonstrated.

The OECD fragility framework conceptualises risks and coping capacities for each context in five dimensions: economic, environmental, political, security and societal (OECD, 2020^[5]). An additional background paper in this series, entitled “Considering human capital in a multidimensional analysis of fragility”, introduces a sixth dimension – the human capital dimension – that the OECD will incorporate into future reports (Forichon, 2020^[6]). Figure 1.1 shows the 57 fragile contexts, viewed anticlockwise according to increasing levels of overall fragility. The intensity of fragility within each dimension is indicated by the darkness of the shading and is measured by a clustering approach elaborated in Chapter 3 and Annex A. The ordering in Figure 1.1 is indicative, not definitive. That is, contexts that are next to each other in the illustration do not necessarily exhibit more or less fragility. Rather, their fragility profiles are unique and therefore readers should not look to their placement on the visualisation as a clear-cut ranking. This attribute of the OECD approach is subtle but important: it underscores not only the multidimensionality of fragility but also the multidisciplinary methodology underlying the fragility framework. Chapter 2 discusses this attribute of the framework in greater detail.

This chapter provides an overview of the 57 fragile contexts and makes the case for why this analysis should matter to DAC members and reformers working in fragile contexts. Chapter 3 further examines their attributes, focusing particularly on how these compare to those of fragile contexts in previous States of Fragility reports.

Figure 1.1. OECD fragility framework 2020



Note: The States of Fragility platform, launched in November 2019, presents this visualisation in an interactive format. Please see <http://www3.compareyourcountry.org/states-of-fragility/overview/0/>.

Why analysing fragility matters

The conclusions of this paper matter to donors, policy makers, researchers and other practitioners for two main reasons. First, they provide a data-driven approach to understanding fragility. Second, they challenge existing thinking on and approaches to fragility and offer a way forward. The analysis here also complements that of Marley and Desai (2020^[7]) on why addressing fragility matters for the Decade of Action to deliver Agenda 2030 (Leone, 2019^[8]).

A data-driven approach to understanding fragility

Since 2005, the OECD has monitored development progress and resource flows to fragile contexts to inform DAC members' development co-operation. The OECD fragility framework has existed in its current form since *States of Fragility 2016: Understanding Violence*. Countries and territories on the framework are referred to as contexts. This term can apply to places, economies, or populations that are not technically recognised as specific countries, which allows for the inclusion of a broader range of entities on the framework and a consideration of sub-national or regional fragility. In keeping with the OECD commitment, the fragility framework serves both a monitoring and a reporting function. It helps identify those contexts that are fragile and thus merit greater attention from the international community, and it describes fragility using a data-driven approach that draws on 44 quantitative indicators across five dimensions, sourced mostly from independent, third-party institutions, as well as qualitative expertise from consultations. By using the findings of the fragility framework, this paper provides an evidence base to support monitoring and reporting on the state of fragility and draw the attention of DAC members to certain contexts, characteristics and trends. It is intended as a reference to help DAC members design better policies for better lives, in line with the mission of the OECD. Specifically, it helps DAC members adjust the terms of their engagement in fragile contexts relative to non-fragile contexts, given the demonstrated need for differentiated approaches to respond to fragility and its drivers (OECD, 2018^[3]).

The contribution of this paper is particularly important given the COVID-19 pandemic and its potential negative consequences for fragility (Bosquet and Fernandez-Taranco, 2020^[9]; OECD, 2020^[10])². It includes some of the latest evidence related to the evolving situation to discuss specific implications of the pandemic on the dimensions of fragility. For example, based on author calculations of poverty projections from the World Bank, 26 million additional people are expected to fall into extreme poverty in fragile contexts due to COVID-19 by the end of 2020, accounting for 43% of the global total (Lakner et al., 2020^[11]). Additionally, based on author calculations of projections produced by Save the Children and the United Nations Children's Fund, 36 million additional children are expected to be living in households that cannot make ends meet by the end of 2020 (Fiala et al., 2020^[11]).

Challenging existing thinking on and approaches to fragility

Various conceptions of multidimensional fragility have emerged in recent years, each with its own measurements and methodological approaches (Ferreira, 2017^[12]; Mueller, 2018^[13]; Gisselquist, 2015^[14]). This rich and growing literature, of which the OECD States of Fragility series is a part, has influenced academic engagement and policy discourse on the issue of fragility (Lemay-Hébert and Mathieu, 2014^[15]; Carment, Muñoz and Samy, 2020^[16]). A notable, recent example is the new World Bank Fragility, Conflict and Violence Strategy (World Bank Group, 2020^[17]). This paper is trying to build on this multidisciplinary literature and advance the discourse through its theory (Chapter 2) and evidence (Chapter 3) on fragility. It is meant to evaluate the state of play critically and challenge its foundational assumptions to inform better policy. Doing so is especially important as COVID-19 will affect the character of fragility and its manifestations globally.

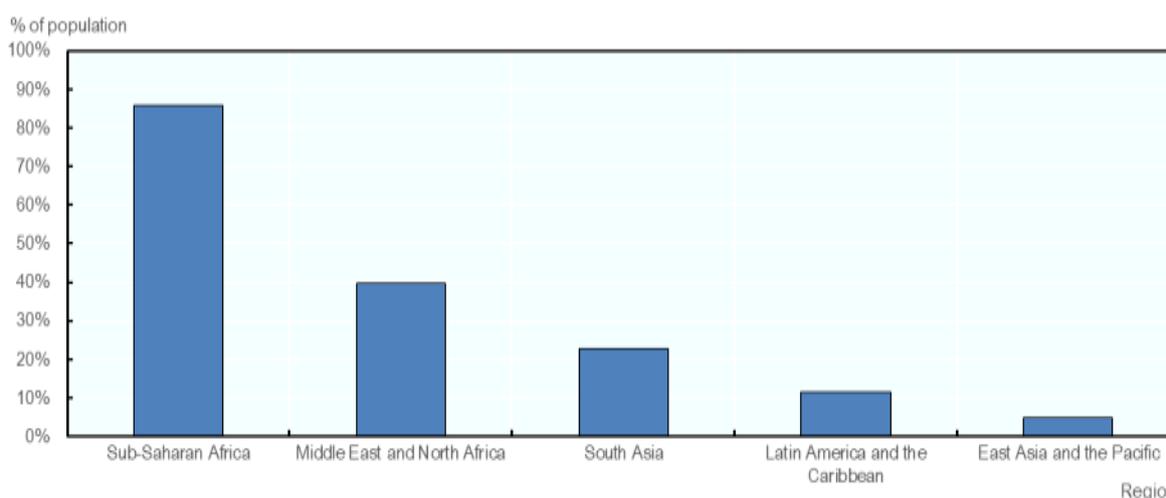
The distribution of fragile contexts in 2020

The 57 fragile contexts span different regions, income groups and categories of fragility. This reflects the multidimensional character of fragility. Various risks and coping capacities, within and across dimensions, interact to produce distinct fragility profiles in each context (OECD, 2018^[3]). As fragile contexts are not homogeneous, it is important to engage in context-specific analysis and avoid approaches that prioritise transplanting institutions and their form over considering the functions of these institutions in a given context (Andrews, Pritchett and Woolcock, 2017^[18]). At the same time, fragility can be more prevalent in certain groups of contexts due to those contexts' inherent characteristics or long-term dynamics, such as regional or income-related attributes (Gelbard et al., 2015^[19]; Corral et al., 2020^[20]). Such groupings are notable because they affect international priorities and, specifically, donor aid allocation decisions (Alonso, Cortez and Klasen, 2014^[21]). They allow donors to see a grouping of the most fragile contexts across different regions and therefore have a clearer picture of the focal points of fragility globally.

Fragility is not exclusive to a region or sub-region – however, 8 out of 10 people in sub-Saharan Africa live in a fragile context

Unpacking fragility across regions can help inform DAC members' regional strategies and assessments. It can also offer insight into cross-border dynamics, including risks of regional spillover, and identify clusters of fragility within a region (Hoeffler, 2019^[22]). While it is important to avoid sweeping generalisations, contexts within a region may exhibit similar characteristics that shape their fragility. Figure 1.2 provides an overview of the regional breakdown of fragile contexts as a share of the total population of that region.

Figure 1.2. Share of regional population that is in fragile contexts, 2020



Note: This graph omits Europe and Central Asia, which has only 1 fragile context that accounts for 1% of the region's population.

Source: World Bank (2020^[23]), *World Bank Country and Lending Groups*, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

Most of the contexts in sub-Saharan Africa³ (35 of the 48) are in the 2020 OECD fragility framework. The population in these 35 contexts accounts for 86% of sub-Saharan Africa's total population: almost 9 out of 10 people in sub-Saharan Africa are living in conditions of moderate to extreme fragility. While not exclusive to the sub-continent, fragility is prevalent across it and merits donors' attention as they address the sustainable challenges facing the continent as a whole.

In the Middle East and North Africa (MENA), 7 of the 21 contexts are fragile, representing 40% of the population of the MENA region. Excluding those that are high income, more than half of the remaining contexts in the region, with 47% of the population, are fragile. In Latin America and Caribbean region, 5 of the 42 contexts are fragile, representing 11% of the region's population. Finally, within the remaining major regions, 6 of the 38 contexts in East Asia and Pacific, one (Tajikistan) of the 58 contexts in Europe and Central Asia, and 3 of the 8 contexts in South Asia are in the fragility framework. These fragile contexts represent 5% of the population of East Asia and the Pacific, 1% of the population of Europe and Central Asia, and 23% of the population of South Asia.⁴ One of the 11 Pacific island small states (Solomon Islands) is fragile, reflecting 27% of these states' population, though this finding partly reflects data availability gaps (OECD, 2018^[3]).

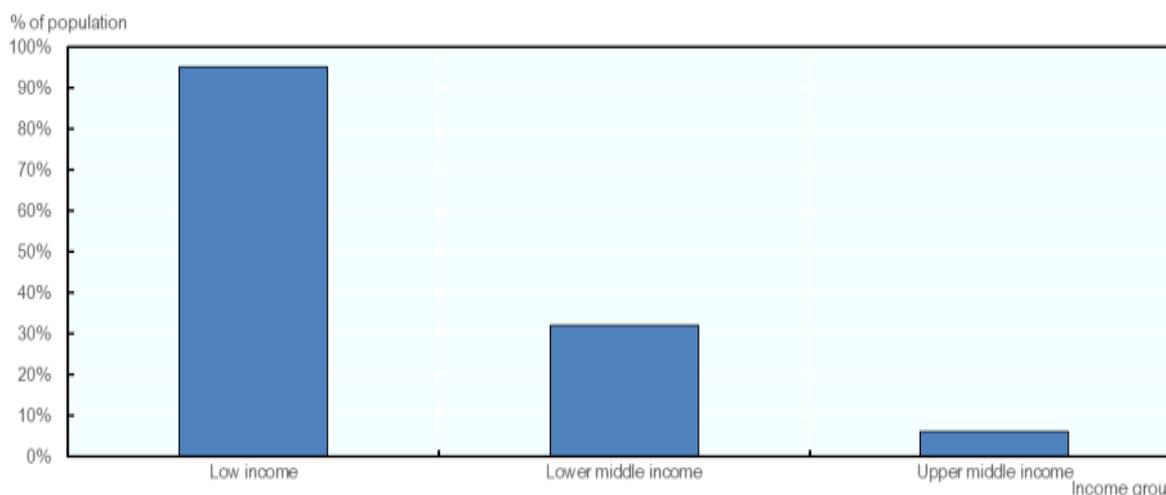
These findings underscore the importance of considering fragility and its drivers in the development of members' regional strategies for development cooperation. They also draw attention to the concentration of people living in fragility, particularly within certain regions such as sub-Saharan Africa and the MENA. This reinforces the impetus to address fragility to leave no one behind (Leone, 2019^[8]). The background paper to *States of Fragility 2020*, "Fragility and Agenda 2030", provides more information on the demographics of these contexts (Marley and Desai, 2020^[7]).

There is also variation within regions, particularly in a sub-continent as diverse as sub-Saharan Africa. For example, 15 of the 20 contexts in eastern Africa⁵, or 93% of the subregion's population, are in the fragility framework. This is compared to 7 of the 9 contexts in middle Africa (99% of the subregion's population), 12 of the 17 contexts in western Africa (85% of the subregion's population), and 2 of the 5 contexts in Southern Africa (only 5% of the sub region's population) being considered fragile. All the contexts in the Horn of Africa and Sahel are fragile. The concentration of populations living in conditions of fragility in these subregions serves as a call to action to the international community.

Fragility and poverty are linked in subtle ways

There are no high-income fragile contexts in the fragility framework. Among the 57 contexts, 27 are low-income and 30 are middle-income.⁶ Middle-income fragile contexts represent 63% (1.1 billion people) of the total population of fragile contexts. Of these 30, 24 are lower middle-income (949 million people) and 6 are upper middle-income (179 million people). This finding underscores the value of a multidimensional understanding of fragility. Income is part of only one dimension, and yet these middle-income contexts are facing challenges in other dimensions that contribute to their overall fragility. Figure 1.3 shows the proportion of the population in each income group, using the World Bank's latest income groupings, that is in a fragile context.

Figure 1.3. Share of income group population that is in fragile contexts, 2020



Source: World Bank (2020^[23]), *World Bank Country and Lending Groups*, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>; UNDESA (2019^[2]), 2019 Revision of World Population Prospects (database), <https://population.un.org/wpp/>.

A greater proportion of low-income contexts, as opposed to middle-income contexts, are fragile. In addition, 95% of the population in low-income contexts live in fragile contexts compared to only 19% of the population in middle-income contexts. Fragility is more widespread in low-income contexts, as demonstrated by the fact that the level of aggregate fragility in the 57 fragile contexts has a weak negative association with gross domestic product (GDP) per capita, which is a measure of income used to determine income classifications (World Bank, 2020^[23]). The average GDP per capita in the 57 fragile contexts is USD 1 760⁷ – less than a third of the per-capita GDP in non-fragile contexts that are also eligible for official development assistance (ODA).

The classification of least developed countries (LDCs) comprise low-income contexts that face structural challenges to their sustainable development, including low levels of income and human assets, and high levels of economic vulnerability (UN DESA, 2020^[24]). The 47 contexts classified as LDCs are eligible for international support measures in trade, development co-operation and participation in international fora. Due to the eligibility criteria for LDCs and the triennial review process for this classification, it is possible that an LDC can exceed the low-income threshold set by the World Bank in its latest income classifications. All but two of LDCs meet the data availability threshold to be covered in the fragility framework,⁸ and 36 of these 45 contexts are fragile. These contexts account for 91% of the population in the 45 LDCs in the framework analysis. These findings suggest that LDCs are facing multidimensional challenges to their sustainable development. It is important that international efforts to increase the share of ODA going to LDCs take into account and address the root causes of fragility that impede their progress towards sustainable development (UN, 2016^[25]).

Commodity dependence and violent conflict are not synonymous with fragility, but there are significant overlaps that merit closer attention

Both fragile and non-fragile contexts fall within broader thematic groupings defined by such traits as commodity dependence and violent conflict. While the thematic distribution of fragility is presented as an exhaustive treatment of this overlap, it nevertheless highlights the persistence of fragility within donors' sectoral and thematic work and how fragility and these thematic issues can be mutually reinforcing. These

issues are explored in greater detail in other background papers to *States of Fragility 2020* (Desai, 2020^[26]; Thompson, 2020^[27]).

Commodity dependence

There is a broad literature on the links between fragility, violent conflict and dependence on natural resources (World Bank, 2011^[28]; Collier, 2010^[29]). Resource wealth and its resultant revenues can be a boon for developing contexts. However, those that are rich in oil, natural gas and minerals also are susceptible to the so-called resource curse, where resource wealth is associated with poor economic and sustainable development performance (Humphreys, Sachs and Stiglitz, 2007^[30]; Ross, 2015^[31]). Economic issues that are rooted in negative terms of trade, macroeconomic volatility due to unstable commodity prices and the Dutch disease only partly explain these developmental challenges (National Resource Governance Institute, 2015^[32]; UNCTAD, 2017^[33]). Political, social and institutional factors contribute to the resource curse (World Bank, 2011^[28]). For example, natural resources can incentivise corruption and encourage rent-seeking elites to capture resource revenues. The Luanda Leaks investigation in Angola in early 2020 describe a prominent, recent example (Global Witness, 2020^[34]). Such resource capture also emboldens elites to co-opt their political opposition, thus entrenching undemocratic regimes (Ross, 2015^[31]). It also may fuel grievances among groups that are excluded from spoils, which potentially may escalate into violence (UN/World Bank, 2018^[35]).

It is thus important to consider overlaps between fragile and commodity-dependent contexts. Among the 57 fragile contexts, 45 are dependent on agricultural, energy and mineral products (UNCTAD, 2019^[36]). Three fourths of the total population of energy-dependent contexts live in fragile contexts. The same percentage of the population of mineral-dependent contexts live in fragile contexts. Almost three out of four people in fragile contexts are susceptible to conditions reflecting the resource curse, especially where there is weak resource governance. Risks related to poor resource governance intersect to contribute to fragility in these contexts, and underscore the need for DAC members to support sound resource management practices, especially at the community level (UN/World Bank, 2018^[35]).

Violent conflict

The presence of violence does not automatically mean that a context is fragile, as fragility is about more than violent conflict (OECD, 2016^[4]). While violent conflict and fragility are not synonymous, it is nonetheless clear that they contribute to and reinforce each other. Violence is a risk to security-related fragility in the OECD fragility framework and is a significant factor in other measures of fragility, such as the new World Bank measure of fragile and conflict-affected situations (World Bank Group, 2020^[17]). In its 2020 Global Peace Index, the Institute for Economics and Peace (2020^[37]) estimates that violence cost the world economy USD 14.5 trillion PPP in 2019, with the cost averaging 41% of GDP for the top ten countries most affected by violence. Beyond its economic impact, violence contributes to political instability, threatens human and social capital, affects individuals' livelihoods, and contributes to forced displacement (UN/World Bank, 2018^[35]). All of these can heighten the risk of fragility and reduce coping capacities, which in turn exacerbate the root causes of violence. The impact of the COVID-19 pandemic are likely to increase the incidence of extreme poverty in developing countries (World Bank, 2020^[38]). They may also worsen inequality and social and political divisions (Furceri, Loungani and Ostry, 2020^[39]). As a consequence, the COVID-19 pandemic has the potential to reinforce the cyclical relationship between fragility and violent conflict (Desai, 2020^[26]).

According to thresholds based on 2019 data from the Uppsala Conflict Data Project, 31 contexts are affected by armed conflict and of these, 22 are considered fragile in the OECD fragility framework. The population of these 22 contexts represents 65% of the population of all 57 fragile contexts, meaning that three of five people in fragile contexts are living in conditions of violent conflict. Some conflict-affected contexts – among them India, Philippines and Turkey – are not in the fragility framework, demonstrating

that violence is a likely but not sufficient condition for fragility. At the same time, all six contexts experiencing high-intensity armed conflict in 2018, i.e. with more than 1 000 battle-related deaths, are extremely fragile; this finding aligns with scholarship on the links between episodes of substantial violence and fragility (World Bank, 2011^[28]). According to the Index for Risk Management (INFORM) and based on the Global Conflict Risk Index (Halkia et al., 2020^[40]), nine of the top ten contexts with the highest risk of internal conflict are fragile, with Ukraine the exception. This finding also supports the literature on the cyclical nature of violent conflict and has implications for DAC members' conflict prevention investments (Desai, 2020^[26]).

What this means for DAC members

Fragile contexts as defined by the OECD 2020 fragility framework are diverse and fall within various country groupings that reflect different geographic, income-related and thematic characteristics. Further analysis could consider the overlapping country and thematic groupings to highlight the compounding risks and vulnerabilities that contribute to states of fragility. Fragility and its manifestations are complex and multidimensional. This is illustrated in the findings that that 86% of the population of sub-Saharan Africa is living in fragile contexts; 91% of the population of LDCs is living in conditions characterised by multidimensional fragility; and three out of five people in fragile contexts are living in conditions of violent conflict. At the same time, fragility is more prevalent in certain groupings than in others, and this should inform donors' broader fragility strategies as well as their region, income-related, thematic and sectoral approaches.

Notes

¹ The categories of fragility are defined using numerical thresholds. All contexts for which the aggregate fragility score is less than -1.2 are considered fragile. Those with an aggregate fragility score of less than -2.5 are extremely fragile. These thresholds are consistent with those used in the 2016 and 2018 States of Fragility reports.

² *States of Fragility 2020* provides more data and analysis on the impact of COVID-19 in fragile contexts thus far across a range of issues.

³ This analysis uses the World Bank 2020 Country and Lending Groups classifications, found at <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>. The list excludes countries with a population of less than 30 000.

⁴ Though the number of contexts in the denominator may change if we account for all contexts rather than only the 175 contexts for which data is available for the analysis of the fragility framework, the population ratios do not change. This is explained by the fact that the contexts analysed in the fragility framework account for 99% of the world's population.

⁵ For the analysis in this paragraph, we use the regional classifications of eastern, middle, southern, and western Africa from the May 5 2020 DAC and Creditor Reporting System code list (OECD, 2020^[147]). These countries in these four classes together amount to 51 – the three not covered by the World Bank classification of sub-Saharan Africa are Mayotte, Saint Helena, and Djibouti, with the latter being in Middle East and North Africa. Mayotte and Saint Helena have populations below 30 000.

⁶ National income groupings are based on the World Bank (2020_[23]) classifications, available at <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

⁷ Data is only available in 2019 for 48 of the 57 fragile contexts.

⁸ The two LDCs that are not covered are Kiribati and Tuvalu as they did not meet the data availability threshold for analysis. However, the population of these two contexts is small enough that the proportion of the population in fragile LDCs relative to all LDCs (including Kiribati and Tuvalu) is still 91%.

2 Navigating fragility with systems thinking

The recognition of fragility as complex is not new. It has informed the OECD's approach to analysing fragility through its multidimensional fragility framework. Major international institutions such as the World Bank and United Nations also acknowledge this complexity and attempt to address it in their engagement in fragile contexts (Colville and Roushas, 2020^[41]; World Bank Group, 2020^[17]). This complexity is most apparent to people working and living in fragile and conflict-affected contexts.

At the same time, and with fragility “the new development frontier” (Kharas and Rogerson, 2017^[42]), delivering on Agenda 2030 calls for navigating complexity to help fragile contexts achieve sustainable development progress that leaves no one behind. Just because fragility is complex does not mean that efforts to address it need to be complicated. The OECD fragility framework is an attempt to explore variations of fragility to guide efforts that navigate its complexity and build resilience in fragile contexts (Gisselquist, 2015^[14]). In doing so, it is an attempt to inform a “fragility to resilience” approach that involves identifying complex and interacting risks at a high level, understanding their root causes, and developing strategies to address the impact of the ensuing crises that may arise. It can help external actors support contexts and societies to mobilise and strengthen their absorptive, adaptive, and transformative coping capacities (OECD, 2014^[43]). This movement from fragility to resilience is not linear nor guaranteed, which is why systems thinking can be useful in helping external partners understand how risks and coping capacities manifest across different systems to affect various states of fragility in fragile contexts.

COVID-19 represents a system-wide shock with complex and multidimensional consequences for fragile contexts (OECD, 2020^[10]; Signé, 2020^[44]). The impact of the pandemic is expected to exacerbate risks and adversely affect coping capacities to fragility. While it is difficult to predict the pandemic's anticipated effects on fragility using the methodology and indicators available in the OECD fragility framework, early evidence suggests reversals in poverty reduction and human development (UNDP, 2020^[45]; World Bank, 2020^[38]). The pandemic is also a reminder of how complex systems interact with and affect each other to shape resilience to crises (OECD, 2020^[46]). They do so in non-linear and sometimes unpredictable ways that preclude attempts to define ex-ante best practices and interventions without understanding the landscape. For example, the pandemic has underscored the importance of social protection for strengthening resilience in fragile contexts, with 46 fragile contexts having implemented 113 social assistance programmes as of July 2020 in response to the pandemic's effects.

Guiding systems thinking for fragility

This chapter seeks to challenge thinking on fragility by building on emerging scholarship and practice on complex, adaptive systems and the fragility within them. It follows other work to apply systems thinking to the analysis of fragility and development co-operation, both in scholarship (Menkhaus, 2010^[47]; Milante, 2015^[48]; OECD, 2018^[3]) and among donors (Global Obesity Prevention Center et al., 2016^[49]; Ramalingam, Laric and Primrose, 2014^[50]). The analysis in the chapter builds on the thinking on adaptive systems presented in *States of Fragility 2018* to further explore its utility and applicability (OECD, 2018^[3]). The goal is to provide a conceptual foundation for the findings in this paper on the 2020 OECD fragility framework, as well as to echo calls for holistic, systems-based approaches to engagement in fragile

contexts that can support efforts to move from fragility to resilience. The chapter outlines the OECD conception of fragility and the methodology underlying its multidimensional fragility framework. It also explores the application of complex, adaptive systems to fragility and discusses implications for DAC members.

What is fragility?

Defining fragility

Fragility, as conceptualised by the OECD since *States of Fragility 2016: Understanding Violence*, is the combination of exposure to risk and the insufficient coping capacity of the state, system and/or communities to manage, absorb and mitigate those risks. The 2016 and 2018 reports in this series elaborate this definition extensively. See, for example, OECD (2018, pp. 82-83^[3]) and OECD (2016, pp. 70-74^[4]).

As fragility itself has changed, so has the understanding of it. The OECD began by conceptualising fragility as a binary: contexts were either fragile or they were not. It then adopted a more expansive and multidimensional understanding of fragility, namely that multiple factors shape fragility and that understanding these factors can help identify pathways in and out of fragility. This paper goes a step further. It views fragility as an emergent property of a complex system, where reformers will not be able to predict impact or behaviours in a linear way and will instead have to rely a combination of best guesses, fast feedback and adaptation to get results.

Historical assessment of the OECD's thinking on fragility

The OECD has published reports since 2005 on the conditions of fragile contexts and resource flows going to them, following concerns expressed at the Senior Level Forum on Development Effectiveness in Fragile States in January 2005 that some fragile contexts received fewer resources relative to their need, with resulting implications for international stability, security and prosperity (OECD DAC, 2005^[51]). Now, 15 years later, these concerns are part of the rationale for developing measures of fragility and tracking financial flows to fragile contexts (Desai, 2020^[52]; Thompson, 2020^[27]), with the Sustainable Development Goals' (SDGs) promise to leave no one behind providing a guiding framework (Kharas and Rogerson, 2017^[42]; UN, 2020^[53]). From 2005 to 2014, the OECD's measure of fragility synthesised indices of development progress from the academic and policy communities to create a binary list of fragile and non-fragile contexts that allowed policy makers to draw attention to the challenges and needs in fragile contexts. While simple and practical, this approach raised both methodological and conceptual concerns, such as the issues of comparing rankings of contexts that have very different fragility profiles or of assuming that fragility could be resolved simply by providing resources from external actors.

Building on the SDG framework of Agenda 2030, the OECD introduced a working model in the 2015 States of Fragility report that presented fragility as multidimensional (OECD, 2015^[54]). Following extensive consultation, the 2016 States of Fragility report updated this model to its current iteration that is used in both the 2018 and 2020 States of Fragility reports. For future reports in this series, the OECD will update its framework to reflect improvements in data availability since the start of the data revolution for sustainable development as well as conceptual developments in analysing fragility, including the value of a human dimension (Forichon, 2020^[6]).

Different methodologies across the OECD fragility reports complicates a historical assessment of fragility. Even in the current, post-2016 iteration of the fragility framework and with the same overarching methodological approach, slight differences in the measurement and weighting of the indicators – all of which reflect nuances of the underlying methodology – mean that a side-by-side comparison across reports should be interpreted with caution. That being said, 21 contexts are chronically fragile, in that they appear

in every OECD fragility report since 2005.¹ This figure underscores the persistent and intractable character of fragility (World Bank, 2011_[28]). At the same time, these chronically fragile contexts are diverse, with different characteristics affecting their specific manifestation and level of fragility. For example, 8 of 21 chronically fragile contexts have not experienced an active, state-based conflict from 2009 to 2019, and 16 of them have not experienced an active, high-intensity state-based conflict in the same period. The analysis of trajectories of fragility in Chapter 3 offers a comparable time series to understand how fragility has evolved since 2012.

The States of Fragility series has evolved to align with global agendas for sustainable development and to reflect emerging scholarship and thinking on fragility, including the accepted understanding of fragility as multidimensional and universal. The goal is to keep pace with these ideas to ensure that the conceptual framing of fragility and its application are relevant to the challenges faced by OECD DAC members and the broader fragility community. It is in this spirit that this chapter explores systems thinking and its application to fragility. At the same time, the findings in this paper underscore that while fragility is a universal phenomenon, there are a core group of fragile contexts – the 57 identified in the 2020 OECD fragility framework – that merit greater attention due comparatively higher levels of fragility across dimensions and systems than their peers.

How the OECD framework approaches the complexity of fragility

The OECD fragility framework provides a mixed methods approach to analyse fragility across the economic, environmental, political, security and societal dimensions.² Each of the 5 dimensions contains 8-12 indicators that quantify risks and coping capacities to fragility in that dimension, amounting to a total of 44 indicators. This framework is one of many measures and tools to assess fragility. Others are emerging from DAC members (DFID, 2017_[55]), from academia and think-tanks (Ziaja, Grävingsholt and Kreibaum, 2019_[56]; Carment and Samy, 2019_[57]; Messner de Latour, 2020_[58]), and from multilateral institutions (Corral et al., 2020_[20]). In this crowded marketplace, each measure has its specific purpose and audience. This section sets out the added value and specificities of the OECD fragility framework.

The framework is multidimensional

The framework's assessment of fragility across five dimensions is one of its most distinctive features. Out of the many assessments of fragility, its analysis of economic, environmental, political, security, and societal factors shaping fragility offers a nuanced perspective to support much-needed differentiated approaches based on the specific interaction of risks and coping capacities in each context. The framework helps highlight specific areas where further attention is needed, thus informing policy and practice on various themes and issues. One such theme, conflict prevention, is discussed at length in another background paper to the 2020 States of Fragility report (Desai, 2020_[26]). In addition, the framework's specific analysis of multidimensionality moves beyond the state to consider indicators of people's risk and resilience such as food insecurity, socio-economic vulnerability and access to justice, thereby promoting a people-centred perspective on fragility.

The framework uses a mixed-methods approach to analyse fragility

The mixed-methods approach reflects an appreciation for the complexity of fragility as well as recognition of the limits of using quantitative measures to assess fragility (Mueller, 2018_[13]). In the clustering approach (Chapter 3), for example, clusters in each dimension are ranked qualitatively using an expert assessment of the contexts within each cluster. The quantitative analysis thus remains an empirical starting point for qualitative assessments that deepen the understanding of fragility and its dynamics at various levels. The discussion in Annex A provides further context on the balance between quantitative and qualitative approaches to the analysis of fragility in the OECD fragility framework.

The OECD intends to complement the quantitative analysis of fragility with qualitative case studies, especially for contexts that are known to face significant vulnerabilities but that do not meet the data threshold for analysis.

The framework provides empirical evidence on the state of fragility globally

The 44 indicators used for the fragility framework are collected from publicly available and verified sources. The methodology is transparent and replicable (Annex B). This approach removes political considerations from the assessment of fragility. Additionally, these data are available on the States of Fragility platform, thereby providing a public good to improve data access and advance evidence-based policy.

The indicators were determined by referring to the scholarship; consulting with a diverse group of experts, especially in the consultative process leading to the 2016 States of Fragility report; and assessing data availability, quality and timeliness. While developed through an extensive process of continuous consultation, reflection and fine-tuning over several years, the indicators are imperfect due to limitations in data and underlying sources. For this reason, only contexts for which data are available across 70% or more of the indicators are included in the analysis for this paper.

In preparation for the next States of Fragility report, the OECD will continue to evaluate the appropriateness of these indicators and their underlying data measures to ensure that the framework is up to date and delivers high-quality, timely and relevant data. It is especially important to do this, given the increased availability of data on sustainable development since the start of the data revolution for the SDGs (UN, 2020^[53]).

A systems approach to analysing fragility

Given the complex nature of systems in and of fragile contexts, systems thinking offer a guiding approach to understand and address fragility. Systems thinking is not always necessary or appropriate for all problems. This section explores it in broad terms, then unpacks the utility of this thinking, and reflects principles, processes and paradigms that are already underway to apply systems thinking to navigating fragility

An overview of systems thinking

Fragility emerges from a complex interaction of factors (risks and coping capacities) within and across systems. Complex, adaptive systems are multilayered (Gregorian, Olson and Woodward, 2019^[59]). For example, the OECD fragility framework classifies education as a source of resilience to economic fragility of a context (OECD, 2020^[5]). Education is a complex system composed of actors, institutions and structural factors – all of which are systems as well – that interact to produce certain education outcomes (Betts, 1992^[60]). The education system interacts with the functioning of other systems that also affect fragility, such as the state of the economy or the strength of civic participation in society (OECD, 2020^[5]).

The relationships within and between complex systems thus shape their composition (Institute for Economics and Peace, 2020^[37]). These relationships are dynamic and non-linear; they change over time, often rapidly and unpredictably, and they can replicate the status quo and fail to adapt to new risks or crises that emerge (de Coning, 2016^[61]). They create feedback loops that either reinforce a change within a system or balance that change with others to stabilise the system³ (Hynes, Lees and Müller, 2020^[62]). The presence of interactions and feedback refers to a key characteristic of complex, adaptive systems – their ability to self-organise, i.e. structure themselves and grow without the need for management or deliberate interference (Meadows, 2008^[63]; de Coning, 2016^[61]). For example, social systems self-organise based on their history, culture, social institutions and other salient factors including interactions between actors (de Coning, 2019^[64]). This property of social systems explains, in part, why imposing external

institutional forms that are considered “best practice” without taking into consideration their functions and local dynamics can backfire (World Bank, 2017^[65]). Additionally, the presence of feedback loops helps explain the emergence and persistence of traps, such as the fragility trap (Collier, Besley and Khan, 2018^[66]), that hinder countries’ pathways to sustainable development. Indeed, as this paper notes, 21 of the 57 fragile contexts have appeared in every OECD fragility report since 2005.

Such interactions mean that actors cannot understand systems by studying their parts alone. Put differently, a system is more than the sum of its parts (Meadows, 2008^[63]), and has emergent properties and purposes that are distinct from any one element within the system. Fragility and resilience are examples of properties that emerge from the complex interactions within and between systems. Actors cannot always identify such properties, especially when the properties’ emergence is not deliberate (Gregorian, Olson and Woodward, 2019^[59]). These challenges underscore the value of thinking in systems to understand the nature of the relationships that lead to emergent properties such as fragility.

Additionally, not all parts in a system are equal or have the same effect on the functioning of the system. In a local community, for example, some perspectives may have greater weight than do others. These dynamics may lead to the emergence of systemic properties such as norms and institutions that are not representative of the whole (de Coning, 2016^[61]). Thinking in systems can help understand the relative weight of different parts and how those weights influence relationships and, in turn, the emergence of properties that affect the whole system. At the same time, parts that have the greatest effect on the system offer entry points to drive systemic change. These are “leverage points”, where “a small change could lead to a large shift in [system] behavior” (Meadows, 2008, p. 145^[63]). The prospect of leverage points, often referred to as silver bullets, is exciting; it serves as a light at the end of the tunnel for practitioners navigating complex and unpredictable systems. However, the reality of such systems, especially ones governed by political and social interactions, suggests that silver bullets do not exist (Green, 2016^[67]). The implication, then, is to design interventions on the assumption that they will not be optimal and rely on feedback and adaptation to navigate systems.

A self-organising system with interacting parts creates hierarchy or various subsystems that affect the functioning of the whole but are not dependent on it (Meadows, 2008^[63]). Hierarchies also exhibit complex, adaptive characteristics (de Coning, 2016^[61]) in that they can change as the system evolves and create emergent properties. An example is the international system, with subsidiary parts in regions, countries and territories, and local systems (USAID, 2014^[68]).

Resilience emerges from a system’s self-organisation and hierarchy. It is a broad, interdisciplinary concept (de Weijer, 2013^[69]). For the purposes of this paper, resilience refers to a system’s ability to absorb and recover from shocks while positively adapting and transforming structures in the face of long-term stresses, change and unpredictability (OECD, 2014^[43]). Actors can strengthen a system’s resilience by reinforcing its absorptive, adaptive and transformative capacities. Resilience thus not only means preventing shocks or mitigating their effects. It also refers to a system’s adaptive capacity either to evolve in a way that moderates future effects or to transform to create fundamentally new configurations (OECD, 2014^[43]; de Weijer, 2013^[69]). Though resilience is a dynamic property, it lends itself to stabilising systems through feedback loops (de Weijer, 2013^[69]), some of which are not always positive such as the reinforcement of repressive or predatory state structures (Ingram and Papoulidis, 2018^[70]). As is the case of any emergent property, sources of resilience are not always apparent, which underscores the importance of a systems analysis to do no harm and avoid unintended consequences.

While thinking in systems is a “science of wholeness” to make sense of systems and their development (Ricigliano and Chigas, 2011, p. 2^[71]), systems’ complexity suggests that it is more art than science. This art involves “dancing with the system” (Meadows, 2008^[63]) to navigate challenges and surprises. Systems maps, network analyses and modelling of system dynamics offer practical ways to analyse systems (Pasanen and Barnett, 2019^[72]). Thinking in this way can be useful, but it can also exhaust practitioners who are wrestling with the realities of working in fragile contexts, especially when their log-frames demand

specific outcomes and outputs. The authors sympathise with these frustrations and are not suggesting that all interventions begin with systems maps and diagrams. Rather than relying on such exhaustive mapping, it is important to accept that no intervention or condition will be optimal and to act using a good enough approach that embraces experimentation, trial and error, and learning by doing.

Implications for fragility

This subsection focuses on analytical, rather than purely practical, applications of systems thinking to fragility. Schreiber and Loudon (2020^[73]) consider practical elements to enable actors to be fit for fragility.

The OECD fragility framework, which identifies risks and coping capacities to fragility, provides a language to inform complexity and systems-based approaches. It helps move beyond monocausal explanations of fragility that fail to account for broader system dynamics and interconnectedness. Most importantly, the framework supplements rather than replaces other methodologies for analysing systems and their states of fragility (Pasanen and Barnett, 2019^[72]).

Donors and international organisations working in fragile contexts have embraced complexity, systems thinking and resilience-based approaches in recent years and devoted significant institutional resources to piloting and scaling them.⁴ The DAC Recommendation on the Humanitarian-Development-Peace (HDP) nexus, adopted in 2019, recognises the increasing complexity of engaging in fragile contexts and calls for programming that is “risk-focused, flexible, and avoids fragmentation through context-adaptable programming” (OECD DAC, 2019^[74]). The Recommendation’s call for holistic, whole-of-government approaches to address fragility also has its roots in systems thinking, as does its call for joint, risk-informed programming and for co-ordination, coherence and complementarity among HDP actors. The Recommendation confronts system-wide mindsets for engaging in fragile contexts. Its adoption thus is an opportune moment to revisit and reemphasise the value of systems thinking for understanding and addressing fragility.

There is increasing convergence on the need for a resilience-centred paradigm (Swelam, 2020^[75]), though “we’re [still] between paradigms” (Devex, 2020^[76]). Moving from “fragility to resilience” (Ingram and Papoulidis, 2018^[70]) has gained traction in recent years, with its most recent high-level articulation in the new World Bank (2020^[17]) strategy on fragility, conflict and violence. DAC members such as the EU Institutions and the United States are also increasingly embracing this approach, which involves identifying risks to fragility and strengthening coping capacities to help contexts achieve peaceful, just and inclusive societies that leave no one behind (Ingram and Papoulidis, 2018^[77]). As noted, fragility does not emerge out of thin air but rather through a complex interaction of risks and coping capacities within a system. Thinking in systems can help actors move beyond symptoms of fragility to target its root causes, thereby informing more holistic and effective policy responses to fragility. Such thinking also moves beyond binaries of fragile versus non-fragile and crisis versus non-crisis to recognise that various states of fragility and resilience exist in all contexts. Chapter 3 elaborates this concept through its analysis of the OECD fragility framework. The framework offers a high-level, coherent concept of risk and resilience across various themes and sectors, reflected in the multidimensional approach of the framework, to inform trajectories from fragility to resilience. Both resilience and prevention, the latter of which is explored in another background working paper for *States of Fragility 2020* titled “Conflict prevention in fragile contexts” (Desai, 2020^[26]), serve as important risk-reduction approaches for engagement in fragile contexts to help prevent the materialisation of complex and interacting risks while also addressing the impact of risks that do inevitably materialise.

That no single model is sufficient to address fragility is a reflection, in part, of the reality of working in complex environments. There are considerable attempts being made to overcome the lack of coordination in aid, such as the commitments included in the DAC Recommendation on the HDP nexus. However, not all silos are problematic. For example, some silos are created to prevent conflicts of interest or mission

creep when implementing aid projects. The key is for actors in each silo to consider the implications of their actions for the broader whole.

The in-between nature of paradigms partly reflects the reality of working in complex environments. It also underscores the difficulty of defining boundaries between systems (Milante, 2015^[48]). This difficulty regarding boundaries contributes to the pursuit of standalone risk assessments that focus on specific thematic issues such as gender, climate change or conflict rather than the intersection of those issues (Swelam, 2020^[75]). This is not to discourage thematic assessments. They reflect good donor practice. However, there is an opportunity to promote more holistic, risk-informed approaches that provide insight into the interconnectedness of risk and the system properties that emerge from those interactions to inform trajectories from fragility to resilience (Ortiz-Stapleton et al., 2019^[78]). Ongoing risk and resilience assessments from institutions such as the World Bank and African Development Bank provide promising examples.

Approaches that encourage “problem-driven, iterative adaptation” (Andrews, Pritchett and Woolcock, 2017^[18]) are an important complement to this risk- and resilience-centred paradigm. Based on four core principles that emphasise locally-led problem-solving, learning and adaptation, problem-driven, iterative adaptation is more about building state capability than it is a model for donor programming per se (Marquette, 2019^[79]). At the same time, the principles underlying it – translated into practice in part through adaptive approaches to development co-operation (Pasanen and Barnett, 2019^[72]) – can help actors apply knowledge about complex problems within systems into praxis that supports countries in their pathways to sustainable development and peace. DAC members are embracing adaptive development in their engagement in fragile and crisis-affected contexts, but challenges remain to scale them, with part of the issue being the lack of an evidence base (Michel, 2018^[80]; Green, 2019^[81]).⁵ Another challenge is that scaling such approaches is perceived to be a secondary process to a winning pilot project or innovation rather than an organising framework for meeting development outcomes through diverse models, innovations, resources, and partners (Papoulidis, 2020^[82]). This point is important because the challenges of navigating complex environments in fragile contexts require learning, experimentation and adaptation to devise solutions that make sense for the local context. Holistic risk assessments of systems are a starting point. However, “dancing with the system” (Meadows, 2008^[63]) involves recognising how systems evolve at any given time, revisiting the assumptions and leverage points identified in the initial risk assessments, and adapting to changing circumstances. Major DAC members in fragile contexts are pioneering thinking and practice on adaptive development and systems-informed approaches, such as the Global Learning on Adaptive Management consortium supported by the United Kingdom’s Department for International Development and United States Agency for International Development. Continuing to push this type of thinking forward is important to help actors be fit for fragility (Schreiber and Loudon, 2020^[73]).

What this means for DAC members

Systems thinking can be daunting for practitioners working in fragile contexts. As noted in this discussion of its utility, DAC members are adopting some of its principles to inform their work in fragile and conflict-affected contexts. The DAC Recommendation on the HDP nexus captures this political momentum. It is important for members to understand these linkages and appreciate the implications of their activities on the totality of a system, in order to do no harm in the contexts in which they work (OECD, 2010^[83]) – or, at the very least, to mitigate the harm that they do and ensure that their activities are benefiting affected populations.

The OECD fragility framework, by providing a holistic assessment of the risks and coping capacities that shape fragility within systems, offers an empirical starting point to inform nuanced, evidence-based and adaptive approaches to engagement in fragile contexts. DAC members such as Denmark, with its Fragility and Risk Analysis tool, are piloting applications of the fragility framework to consider the dimensions of

fragility more holistically in their strategic planning in fragile contexts and to enable joint context analysis among actors. However, the limitations of the framework, which underpin all such assessments (Mueller, 2018_[13]), prevent it from being a purely programmatic tool for navigating systems. Chapter 3 provides an in-depth look at the results of the framework, including how it can provide a snapshot of the states of fragility that exist within systems at different levels.

Notes

¹The 2018 States of Fragility report identified 27 chronically fragile contexts by comparing lists over the 10-year period of 2008-18. The figure used in this working paper considers the full time series since 2005.

² These are presented in greater detail on the States of Fragility platform (OECD, 2020_[5]). For descriptions of the dimensions and indicators, see especially the <http://www3.compareyourcountry.org/states-of-fragility/about/0/> and the indicators in the fragile context profiles at <http://www3.compareyourcountry.org/states-of-fragility/countries/0/>.

³ An arms race is a classic example of a reinforcing feedback loop and a thermostat provides an example of a balancing loop. See (Ricigliano and Chigas, 2011_[71]) at <https://www.cdacollaborative.org/wp-content/uploads/2016/08/Systems-thinking-in-conflict-assessment.pdf>.

⁴ See, for example, USAID (2014_[68]), Christie and Green (2019_[120]) and the World Bank Group (2020_[17]) *Strategy for Fragility, Conflict, and Violence 2020-2025*.

⁵ See also, for illustration, Smith, Hinthorne and McIntire (2019_[118]) at <https://usaidlearninglab.org/lab-notes/moving-needle-2019-collaborating-learning-and-adapting-cla-crisis-response-and-recovery>.

3 Shifts in fragility in the 2020 framework

This chapter provides a snapshot of the state of fragility in 2020, building on the overview in Chapter 1 and the conceptual foundation discussed in Chapter 2 to elaborate the main findings from the 2020 OECD fragility framework. It begins with a survey of the 57 fragile contexts, of which 13 are extremely fragile. It discusses the contexts that moved onto and exited the framework since *States of Fragility 2018*, as well as what improved and what deteriorated in the state of fragility worldwide to bring about changes in select contexts. These evolutions are illustrated through case studies of Nicaragua and Honduras, Ethiopia and Eritrea, and Timor-Leste.

The chapter also provides empirical evidence on the layers, trajectories and clusters of fragility to inform more nuanced, differentiated approaches for addressing fragility and its drivers across dimensions. In doing so, it helps policy makers and reformers sustain attention on the issue of fragility, particularly for these 57 fragile contexts. It then reviews global, regional and subregional trajectories of fragility across dimensions and over time, concluding with a consideration of considering clusters of fragility, using the clustering approach discussed in Annex A.

Highlights of changes in fragility in the 2020 framework

This section analyses movements in and out of the OECD fragility framework across the 2016, 2018 and 2020 States of Fragility reports to show how individual contexts are faring.¹ It pairs quantitative characteristics and trends from the framework results with qualitative insights that may explain some of these movements. The analysis for *States of Fragility 2020* covered 175 contexts and found 57 to be fragile. Of these, 44 are other fragile and 13, 2 fewer than in earlier iterations of the fragility framework, are extremely fragile. The total number of fragile contexts is one less than in *States of Fragility 2018* and one more than in *States of Fragility 2016*.

Between the 2018 and 2020 fragility frameworks, four contexts (Cambodia, Lesotho, Nicaragua and Togo) moved onto the framework and five contexts (Egypt, Malawi, Nepal, Rwanda and Timor-Leste) moved off. Two of the four newcomers, Nicaragua and Togo, appear on the fragility framework for the first time in 2020.² Cambodia and Lesotho were both fragile on the framework in 2016 but not in 2018. Four of the five contexts exiting the framework, meanwhile, were fragile on the 2016 framework, with Nepal the exception. In other changes, Eritrea, Ethiopia and Mali are no longer extremely fragile on the 2020 framework, as they were on the 2018 framework, though Mali is very close to the threshold for an extremely fragile context (and was the least-extremely fragile context in the 2018 framework). However, Republic of the Congo shifted from moderately to extremely fragile, due in part to increases in its economic fragility. For the first time, Timor-Leste is not on an OECD fragility framework or fragile states report. Though security fragility in Timor-Leste increased slightly, fragility in other dimensions showed a marked decline, and other fragility indices also register its progress over time (Reed, 2017^[84]).

Since the 2018 framework, overall fragility declined in 103 and rose in 72 of the 175 contexts analysed in 2020. These shifts are relatively modest. Only 33 contexts experienced a notable change:³ in 21, fragility

declined and in 12, fragility rose. A different picture emerges in the 57 fragile contexts. Fragility increased in 32 of these contexts and declined in 25, which suggests that average, aggregate fragility in fragile contexts has increased slightly since the 2018 framework. Of these 57, 13 contexts have experienced notable shifts, with fragility increasing in 7 and declining in 6. In descending order, the most substantial declines of fragility occurred in Gambia, Ethiopia, Honduras, Djibouti, Kingdom of Eswatini, Guinea-Bissau and Zimbabwe. Six of these seven contexts are in sub-Saharan Africa, with Honduras being the exception. Fragility increased most substantially, in descending order, in Nicaragua, Islamic Republic of Iran, the West Bank and Gaza Strip, Togo, Comoros, and Bolivarian Republic of Venezuela. Only two of these contexts are in sub-Saharan Africa, two are in Latin America and the Caribbean, and two are in the Middle East and North Africa region. The fragile context profiles on the States of Fragility platform provide additional information regarding contexts that experienced the most significant increases and declines in fragility within each dimension (OECD, 2020^[5]). This analysis of shifts over time demonstrates the value of the OECD fragility framework in balancing a global assessment of fragility with nuanced perspectives on each context. This section provides additional insight into the shifts on the framework from the 2018 to 2020 frameworks through analysis of five specific contexts.

Nicaragua and Honduras

Nicaragua and Honduras, despite their close geographic proximity and similar characteristics, offer an interesting case study of diverging trajectories of fragility. Since the 2018 framework, fragility overall and in each dimension has substantially increased in Nicaragua and declined in Honduras. The two contexts exhibit similar levels of overall fragility in the 2020 framework. But their experiences highlight that both positive and negative political developments can affect fragility across dimensions.

Nicaragua is a new addition to the fragility framework. It experienced significant increases in its security, political and societal fragility that are driving its overall fragility level. These are due in part to social unrest in the country since 2018, including the widespread protests on 19 April 2018 against the government's proposed social security reforms (Rivas, 2018^[85]). According to the Inter-American Commission on Human Rights and Freedom House, the response to the protests left hundreds dead, injured or in detention and curtailed freedom of expression and civil liberties in the ensuing months (Organization of American States, 2018^[86]; Freedom House, 2020^[87]). Human Rights Watch and other organisations also reported an uptick in violence against journalists and impunity for officials (Human Rights Watch, 2019^[88]). The 2020 fragility framework shows that political fragility in Nicaragua is driven by increases in indicators of state corruption and clientelism alongside declines in indicators of political stability and government effectiveness. The level of citizens' voice and accountability, an indicator of coping capacity in both the political and societal dimensions, also declined. Increased societal fragility is driven by declines in two indicators, access to justice and the strength of civil society, and an increase in the indicator of horizontal inequality. A worsened security environment, as measured by increases in indicators of armed conflict and terrorism and a decline in coping capacities related to the state's control over its own territory, accompanied the deterioration in these other dimensions of fragility.

Though still a fragile context, **Honduras** has experienced across-the-board declines in its fragility since the 2018 framework. The decline in security fragility is notable, particularly the downward trend in indicators measuring homicide rates and the impact of terrorism (UNODC, 2019^[89]). These developments reflect the effects of laws and policies to improve security and address sources of corruption in the country (Human Rights Watch, 2020^[90]). For example, the Honduran government and the Organization of American States launched the Mission to Support the Fight against Corruption and Impunity in Honduras in 2016 as a joint effort to reform public security institutions (Organization of American States, 2020^[91]).

Eritrea and Ethiopia

While the contexts considered extremely fragile were the same in both the 2016 and 2018 fragility frameworks, three of these moved out of this category and one newcomer was added in the 2020 framework. The shift highlights the persistence of fragility traps, especially in conditions of extreme fragility. Issues such as widespread violent conflict, which many of these extremely fragile contexts are facing (Chapter 1), can compound risks across all dimensions of fragility and contribute to fragility's persistence in the face of insufficient coping capacities. At the same time, movements out of extreme fragility in the 2020 framework point to the potential for escaping such fragility traps.

Eritrea and Ethiopia exited extreme fragility in the 2020 framework. They are neighbours with a shared recent history in the form of both their 20-year-long war and the peace agreement they signed in 2018 to resolve it (Underwood, 2018^[92]). However, their fragility profiles differ, particularly in the political and security dimensions. Both contexts face severe fragility in the societal and environmental dimensions and high fragility in the economic dimension, according to the clusters into which they fall.⁴ But since the 2018 framework, political and societal fragility have declined in Ethiopia and security fragility has declined significantly in Eritrea. Moreover, Eritrea is severely politically fragile, according to the results of the 2020 framework, while Ethiopia is moderately political fragile. In the security dimension, Eritrea exhibits minor fragility, whereas Ethiopia is highly fragile.

The government of **Ethiopia** has enacted significant political reforms since 2016 to put the country on a path towards democratisation. Additionally, Prime Minister Abiy Ahmed was awarded the 2019 Nobel Peace Prize for his efforts to achieve peace in the border conflict with Eritrea. Despite its moderate political fragility, Ethiopia's performance has improved on nearly all indicators of risks and coping capacities in the political dimension of fragility. Notably, indicators related to legislative constraints on executive power and political stability have improved since the 2018 framework and the measure of clientelism has declined. In the societal dimension, measures related to citizens' voice and accountability and access to justice have improved, whereas the level of horizontal inequality has declined. Ethiopia's high level of security fragility reflects internal political and ethnic rivalries and inter-communal violence (ACAPS, 2020^[93]). There is a risk that such issues will reverse Ethiopia's progress in reducing its fragility (ACAPS, 2020^[93]).

The overall fragility of **Eritrea** has declined since the 2018 framework due largely to an improved security landscape. The long border conflict with Ethiopia had contributed much to Eritrea's security challenges in the past and coincided with restrictions on civil liberties (UN Human Rights Council, 2016^[94]). The risk of violent conflict and the number of battle-related deaths, both indicators of security fragility in the 2020 framework, have since fallen substantially (Pettersson, Högladh and Öberg, 2019^[95]). The last instance of violent conflict with Ethiopia was a two-day battle near Tsorona, on the border, four years ago, in June 2016 (Pettersson, Högladh and Öberg, 2019^[95]).

The progress in both Ethiopia and Eritrea, brought about in part by the 2018 peace agreement, highlights how cross-border dynamics and political relationships can affect other dimensions of fragility. These also can impact overall fragility, which has declined substantially in both contexts albeit through different means. Understanding the political structures and incentives of contexts is thus crucial to understanding how events and interventions will affect aspects of fragility across all dimensions.

Timor-Leste

Timor-Leste left the fragility framework in 2020. As discussed in Chapter 1, violence and fragility are mutually reinforcing, which contributes to a conflict trap. Timor-Leste exited this trap through investments in conflict mitigation, political institutions and economic resilience. While its security fragility increased slightly since the 2018 framework, fragility in all other dimensions, and particularly in the economic dimension, declined. Findings from the 2020 framework suggest measures related to its food insecurity, socio-economic vulnerability, dependence on external finance and public debt have decreased alongside

an increase in gross domestic product (GDP) growth. However, the International Monetary Fund, while acknowledging Timor-Leste's significant progress since independence in 2002, also notes that greater emphasis is needed on fiscal sustainability, institutional capacity and human capital (International Monetary Fund, 2019^[96]).

Timor-Leste's progress demonstrates the potential benefits of joint approaches between governments and international partners to target and address the root causes of fragility and promote long-term peace and development (World Bank, 2002^[97]). In 1999, and with the end of 25 years of armed conflict, a Joint Assessment Mission co-ordinated by the World Bank, in partnership with international actors and Timorese stakeholders, was deployed (World Bank, 1999^[98]). The mission established joint priorities between Timorese stakeholders, led by the National Congress for Timorese Reconstruction, and funding partners. This partnership mobilised reconstruction funds early on in parallel with a United Nations (UN) peacekeeping mission, allowing a smooth transition from humanitarian to development assistance while avoiding gaps in reconstruction activities (World Bank, 2002^[97]). The joint planning approach by national actors and their international counterparts promoted a triple nexus approach (OECD DAC, 2019^[74]) that targeted the root causes of fragility and defined clear roles and responsibilities among institutions involved in the post-conflict reconstruction. Though Timor-Leste still faces challenges, 20 years after the end of its conflict and 15 years after the departure of the UN peacekeeping mission, it has continued to make progress on its sustainable development objectives and maintain peace and stability.

Timelines and layers of fragility

As noted in Chapter 2, fragility emerges within systems and subsystems that exist at different levels. The 2008 financial crisis and subsequent Great Recession highlighted systemic risks that exacerbated economic fragility globally and affected other systems related to political, social and environmental stability (Hynes, Lees and Müller, 2020^[62]). The COVID-19 pandemic now poses another systemic risk that will cascade into various subsystems, deepen existing sources of fragility and lead to potential new sources of fragility (Mizutori and Hackmann, 2020^[99]).

Given this interconnectedness and the persistence of cross-border dynamics that contribute to systemic fragility, the results of the 2020 framework can, importantly, provide insight into levels of fragility globally and in subsidiary systems. All layers of the global system, from the international to the local, play a role in affecting pathways from fragility to resilience (Ingram and Papoulidis, 2018^[77]; OECD, 2018^[3]). Among these influences are economic and technological linkages, migration and forced displacement, violent conflict paired with terrorism and transnational organised crime, and climate change and epidemics (UN/World Bank, 2018^[35]). For example, armed conflicts in sub-Saharan Africa are more transnational than previously understood (Twagiramungu et al., 2019^[100]). Borderland regions in fragile and conflict-affected contexts face unique challenges in their concentration of poverty and the prevalence of transnational violence (Vemuru et al., 2020^[101]). Such an analysis can thus inform donors' regional and thematic strategies as well as joint policy initiatives by highlighting priority areas, providing an evidence base for engagement, and facilitating coherence and co-ordination among partners. It can also reveal blind spots and big picture trends. The results of the 2020 fragility framework also can support more effective targeting of development assistance to areas of need, based on the variation of levels of fragility across dimensions. The DAC Recommendation on the Humanitarian-Development-Peace Nexus recognises the value of "thinking and acting across borders" (OECD DAC, 2019, p. 8^[74]).

Nevertheless, the fragility framework's focus on contexts limits its potential for analysing systemic characteristics. To unpack levels of fragility within different systems and subsystems, this paper aggregates the fragility score of each context in a system using a population-weighted average.⁵ This approach is not perfect. Nor is it a systems analysis of fragility per se, though it could inform tools such as systems maps. Finally, it is possible that considering averages will mask underlying trends. It is important,

therefore, to balance any analysis of systemic fragility with a deeper analysis of context-specific dynamics – an argument precisely for thinking in systems by moving beyond big-picture averages to consider characteristics of fragility in subsystems.

Such caveats aside, the following analysis provides an empirical starting point for assessing states of fragility across systems, especially when it is complemented by qualitative insights and accompanying data sources. This analysis is a proof of concept rather than a comprehensive treatment of regions and subregions.

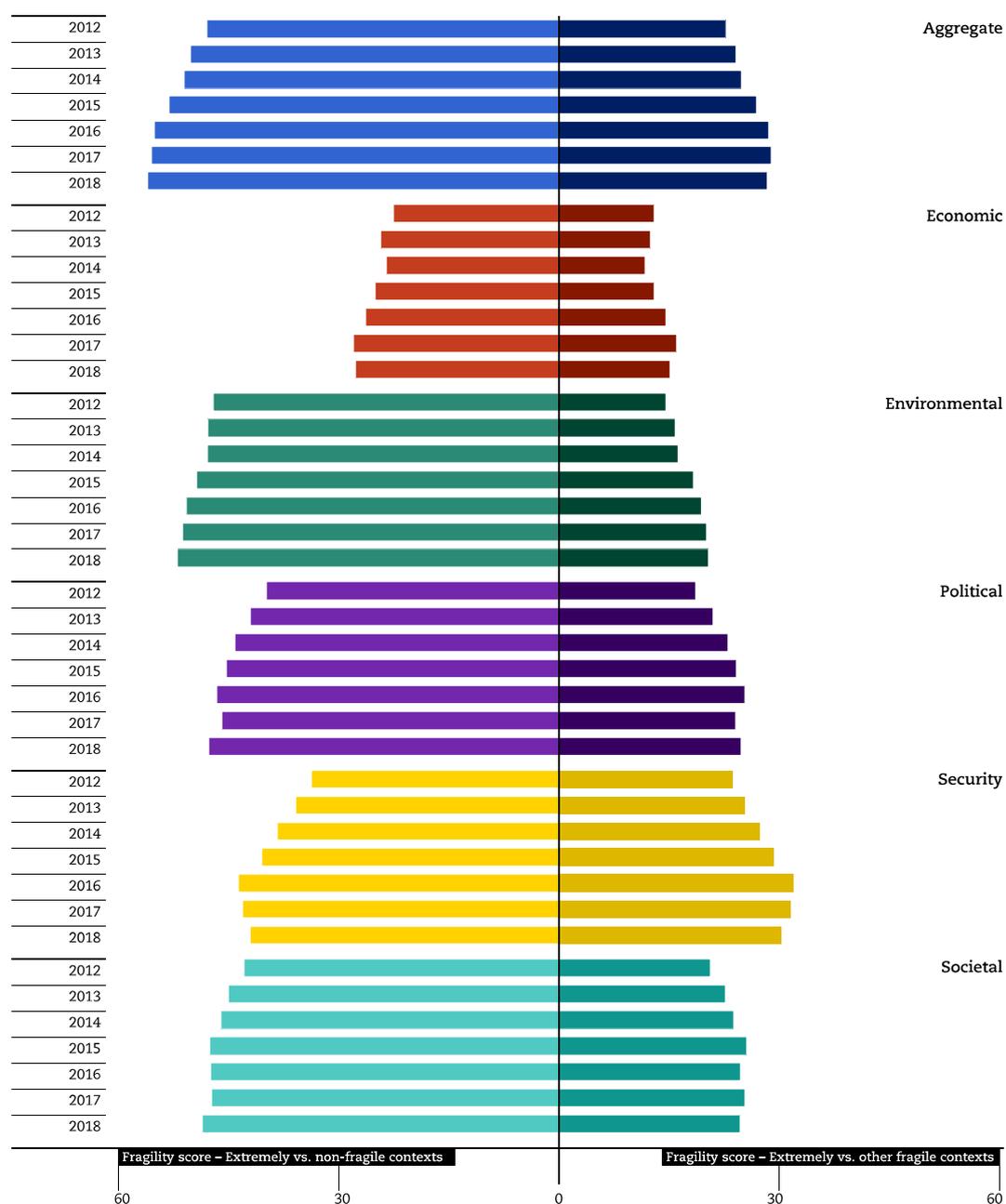
Global fragility

Aggregate fragility across all 175 contexts, while trending slightly downward, has remained relatively consistent since 2012⁶. This finding underscores the persistence of fragility despite global efforts to target fragility and its drivers. It also points to a dynamic stability in the system (de Weijer, 2013^[69]), wherein various interlocking features, or feedback loops, lead to path dependence in the system that means change is slow. Variations in the dimensions of fragility over time and across all contexts provide a frame of reference to understand underlying currents in overall fragility. For example, economic fragility globally declined from 2012 to 2018, likely reflecting the stabilisation of the international financial system following the Great Recession (Hynes, Lees and Müller, 2020^[62]). Environmental fragility, which measures indicators of human well-being and vulnerability stemming from environmental factors, also declined from 2012 to 2018 at a rate more pronounced than economic fragility. Societal fragility has trended upwards since 2013. Similarly, security fragility increased from 2012-16, likely reflecting developments following the Arab Spring, but then declined slightly from 2016-18.

More dynamic stability as well as slightly divergent trends are evident when contexts are disaggregated as extremely fragile, other fragile, and non-fragile ODA-eligible, or eligible to receive official development assistance (ODA)⁷ (Figure 3.1). The difference in levels of fragility between extremely fragile and non-fragile, ODA-eligible contexts have increased in every year from 2012 to 2018 in the aggregate as well as the environmental dimension. In the security dimension, the difference peaked in 2016 while declining slightly in 2017 and 2018 but remaining at a higher level than in 2012. In the political and economic dimensions, this difference between extremely and non-fragile contexts widened from 2012 to 2018 albeit at different rates in the intervening years.

This divergence between the two types of contexts points to increasing inequality over time and suggests that, should these trends persist, extremely fragile contexts will be left ever further behind in the Decade of Action. Trends of increasing fragility in the most extremely fragile contexts such as Iraq, Somalia and Yemen underscore that the furthest behind already were being left further behind, even before the COVID-19 pandemic. Though the data are as of yet inconclusive, available evidence suggests that the impacts of COVID-19 will disproportionately affect the poorest and most vulnerable, with one potential consequence being further inequality between extremely fragile and other contexts (Furceri, Loungani and Ostry, 2020^[39]).

Figure 3.1. The growing gap in levels of fragility, 2012-18



Note: The fragility score for extremely fragile, other fragile and non-fragile, developing contexts is calculated using an arithmetic average of the fragility scores of the contexts in each category. Scores are available for 13 extremely fragile, 44 other fragile, and 66 non-fragile, developing contexts.

Fragility in each dimension in the 57 fragile contexts has also been generally stable since 2012. Slight changes since 2016 point to potential developments that merit closer attention, especially in light of COVID-19. For example, political and economic fragility increased slightly from 2016 to 2018, whereas security fragility declined slightly from 2017 to 2018. It is difficult to attribute this latter decline to shifts within individual contexts, though security fragility notably declined from 2017 levels in Iraq, Libya, Niger and Democratic Republic of the Congo (DRC), in descending order of magnitude. On the other hand, economic fragility from 2016 increased in Iran, Iraq and Nicaragua. The concurrent increases in economic and

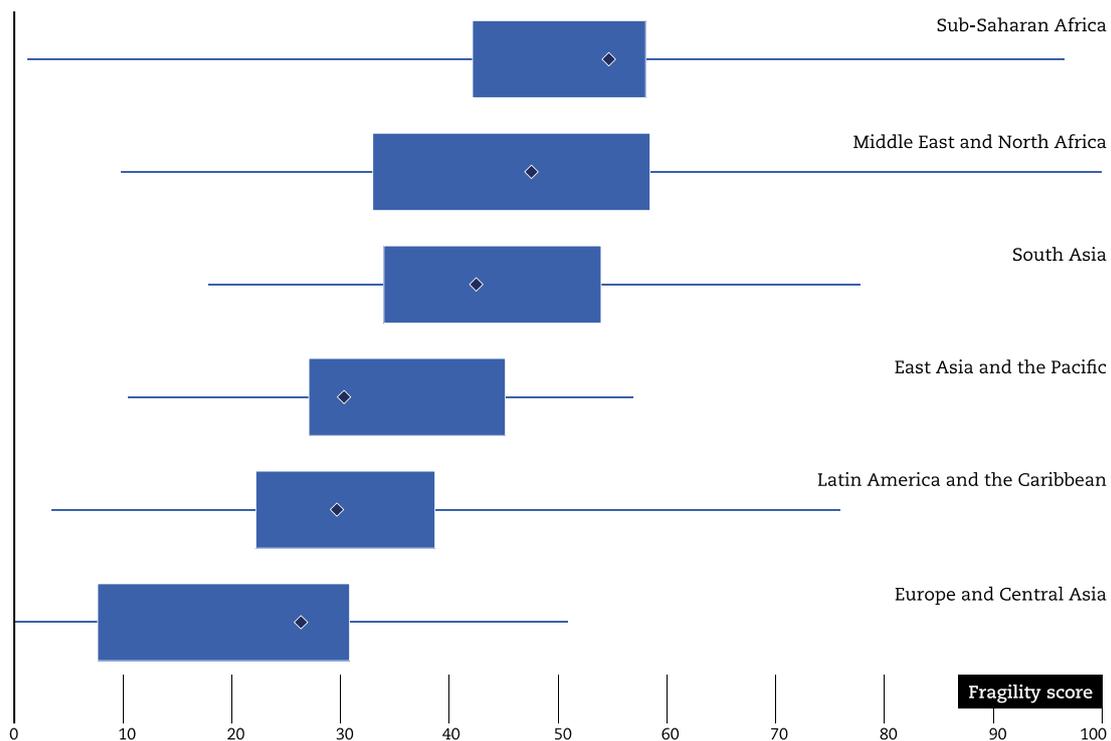
political fragility are also warning signs as the pandemic begins to affect the macroeconomic stability of these contexts (World Bank, 2020_[102]). Recent research shows that authoritarian regimes are especially sensitive to poor economic performance, with authoritarian transitions increasing the risk of violence (Day, Druet and Quaritsch, 2020_[103]).

Regional fragility

While global trends show a system in equilibrium, with increasing risks offset in part by sources of resilience, important sources of variation in risks and coping capacities to fragility are present at lower levels. This subsection analyses the level of fragility across regions using the latest year available in the 2020 OECD fragility framework and focusing solely on ODA-eligible contexts to guide DAC members' financing and priorities.

The level of overall fragility is the highest in sub-Saharan Africa, followed by the Middle East and North Africa (MENA) and South Asia (Figure 3.2). The level of fragility in sub-Saharan Africa is almost five times that of the East Asia and Pacific (EAP). These findings align broadly with the distribution of fragile contexts across regions (Chapter 1). Notably, overall fragility in Latin America and the Caribbean (LAC) is slightly lower than in the EAP, though 11% of the LAC population but only 5% of the EAP population is living in fragile contexts.

Figure 3.2. Aggregate regional fragility, 2018/2019



Notes: The fragility score for each region is calculated using a population-weighted average of the fragility scores of the ODA-eligible contexts in each region (represented by the diamond), using population statistics in 2019 from UN DESA (UN DESA, 2019_[2]). ODA-eligible contexts consist of those on the DAC list of ODA recipients for reporting on aid in 2018 and 2019.

Sources: UN DESA (UN DESA, 2019_[2]), *World Population Prospects 2019* (database), <https://population.un.org/wpp/>; list of regions from World Bank (2020_[23]), *World Bank Country and Lending Groups*, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>; OECD (2020_[104]), *DAC list of ODA recipients for reporting on aid in 2018 and 2019*, <http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/DAC-List-of-ODA-Recipients-for-reporting-2018-and-2019-flows.pdf>.

Regional variation is also evident in the five dimensions of fragility, with the highest levels of economic and environmental fragility being in sub-Saharan Africa. However, compared to other regions, political, security and societal fragility are highest in MENA, reflecting the extreme fragility of contexts such as Syria and Yemen (particularly in the security dimension) and the relatively higher levels of political and societal fragility in some non-fragile contexts. The prevalence of political fragility in EAP compared to its performance in other dimensions is notable, especially as EAP is the least economically fragile region, and likely is driven by comparatively high levels of political fragility in Cambodia, Democratic People's Republic of Korea, Lao People's Democratic Republic and some non-fragile contexts in the region. The dimensional snapshots in Annex A of *States of Fragility 2020* visualise these regional levels across the dimensions of fragility (OECD, 2020_[105]).

These findings reinforce the flexibility of the OECD fragility framework in helping analyse regional levels of fragility. The framework also provides a mechanism to dig deeper and appreciate the unique complexity of each region and context. For example, even within sub-Saharan Africa, there is substantial variation in sub-regional fragility across central, eastern, southern and western sub-regions of the sub-continent. Beyond informing donors' thematic priorities, these results show the benefit of a complexity-driven approach that analyses cross-dimensional challenges to sustainable development. For example, contexts in sub-Saharan Africa are facing, on average, persistently high levels of economic and environmental fragility that affect their development trajectories. Moreover, cross-dimensional analysis reinforces the understanding of fragility as a spectrum not only within contexts on the fragility framework but within all contexts. For example, levels of fragility in certain dimensions may well be higher in contexts that are not on the framework than in the fragile 57 contexts, and this affects regional scores. Further investigation at a greater degree of disaggregation is thus needed.

Subregional fragility

A subregional assessment provides an additional layer of granularity. Many donors devise subregional strategies to address cross-national elements and devise cohesive and co-ordinated approaches across contexts that are near to each other and share similar challenges. Events such as droughts, disasters and pandemics particularly have subregional rather than purely context-specific implications. Subregions also have political implications, as seen in the G5 Sahel where conflict, transhumance patterns, migration, climate change and other issues are transnational and interdependent (Day and Caus, 2020_[106]).

This paper therefore applies the same methodology used in the regional analysis to calculate subregional estimates of fragility for a limited cohort of subregions. Such analysis is meant to be a proof of concept to demonstrate this application of the fragility framework rather than a comprehensive assessment of subregional fragility. For this reason, it focuses on the subregions in Africa. Another reason is practical: the number of fragile contexts in subregions elsewhere is limited, so the focus is on subregions where fragility is most concentrated. By considering African subregions, the diversity of fragility on the continent can be highlighted.

The level of fragility in the aggregate and in all five dimensions was the highest in contexts in middle Africa compared to those in Eastern, Western and Southern Africa. In the eight contexts of the middle Africa subregion, 98% of total population is living in conditions of moderate to extreme fragility; of these, Gabon and Sao Tome and Principe are the only non-fragile contexts. The biggest difference between middle Africa and the second most fragile subregion is in the political dimension and the smallest difference is in the security dimension. western Africa is the second most fragile subregion except in the security dimension. eastern Africa exhibits the second highest levels of fragility in each dimension and overall. southern Africa is the least fragile of the four subregions overall and in each dimension, particularly in the political dimension. Only two of the five contexts in southern Africa, representing 5% of the subregion's population, are fragile.

Analysis of three other African subregions, all of thematic and political interest to policy makers, provides a different perspective on subregional fragility. These three – the African Great Lakes subregion, the Horn of Africa and the Sahel – consist of roughly the same number of contexts and all of these are fragile contexts except for Rwanda in the Great Lakes subregion. These subregions are home to a fifth of the total population living in the 57 fragile contexts.

Of the three subregions, the Great Lakes subregion displays the highest level of fragility both overall and within each dimension, except for the security dimension. The Horn of Africa exhibits the highest level of security fragility. The overall fragility levels of the Horn of Africa and Sahel are almost identical. In the political, security and societal dimensions, the Sahel is the least fragile of the subregions. These findings, however, mask differences within the subregions. For example, the comparatively low levels of political and societal fragility in Burkina Faso and Niger, at least compared to the rest of the contexts in the Sahel, affect the Sahel subregion's aggregate score. This analysis does not imply that the Sahel should be deprioritised. Rather, it highlights other subregions in the continent that merit attention due to their relative levels of fragility. Box 3.1 discusses the Great Lakes subregion as a case study in subregional fragility in greater detail.

Box 3.1. Case study of sub-regional fragility in the Great Lakes Region

The African Great Lakes subregion comprises Uganda, Rwanda, Burundi and DRC. It is one of the world's most fragile subregions, with an average aggregate fragility level close to that of the average extremely fragile context and with more than 90% of the population living in a context classified as fragile in the OECD fragility framework. The subregion as whole exhibit high levels of fragility across all dimensions. In the environmental dimension, it is even more fragile than the average extremely fragile context. However, these measurements are just aggregates of context-level indicators. To understand how fragility manifests in the subregion, deeper analysis of transborder and subregion-wide risks and coping capacities is needed.

The average security fragility in the Great Lakes subregion is significantly lower than in the average extremely fragile context, and only two of the four contexts in the Great Lakes subregion (Burundi and DRC) have experienced state-based or non-state violent conflict in the last five years (Pettersson, Högladh and Öberg, 2019^[95]). However, much of that violence has taken place in areas on the border between the four contexts with clear transborder dynamics, which poses a significant risk to peace and stability for the entire subregion, including Uganda and Rwanda (Twagiramungu et al., 2019^[100]). The existence of transnational ethnic groups, for example, plays an influential role in conflict diffusion and escalation in the region. Following the 1994 Rwandan genocide against the Tutsi, many from the Hutu community in Rwanda fled into the north and south Kivu regions of DRC, where fighting broke out between Hutu alliances and DRC Tutsis. The conflict further escalated because of cross-border recruitment of Hutus and Tutsis from both Rwanda and Burundi. What was first a context-specific genocide thus became a regionalised conflict spanning three of the four contexts in the Great Lakes subregion (Kanyangara, 2016^[107]).

Societal fragility in the subregion also exhibit strong subregional characteristics. There have been significant forced displacement flows across borders within the region, with people from all four contexts fleeing at different times to a neighbouring context in the region (World Bank Group/UNHCR, 2015^[108]). These flows pose a risk of societal fragility by exacerbating inequalities; putting pressure on already strained resources of food, water, land and essential services; and in some cases exacerbating ethnic and social disputes (OECD, 2020^[5]). Transnational ethnic and societal groups and inequalities between them are also a source of societal fragility in the subregion. Multi-ethnicity in and of itself does not pose a risk to security and stability. However, horizontal inequalities do pose such a risk, as is highlighted in the OECD fragility framework. Several studies have found that inequalities between ethnic groups in the Great Lakes subregion, in particular over access to land, are a major source of conflict in the region (Kanyangara, 2016^[107]). The transnational ethnic dynamics exacerbate this risk in that inequities in one context have the potential to spread across borders, fuelling ethnic disputes and violence.

The COVID-19 pandemic exposes the region to the manifestation of additional aspects of fragility at the subregional level, including in the economic dimension. Transborder food and agricultural trade within the region is an important contributor to food and income security in several contexts in the Great Lakes subregion. There are at least 45 000 small-scale, cross-border traders in the region, most of them women. They and their dependants often rely on the ability to travel across borders for income and food security (International Alert, 2016^[109]). Measures taken to manage the pandemic that limiting cross-border movement thus aggravates food and income insecurity for traders in contexts that already are experiencing widespread food insecurity (European Network for Central Africa, 2020^[110]).

All the contexts in the African Great Lakes subregion are exposed to significant but varying risks and lack coping capacities to mitigate those risks across all dimensions of fragility. They differ in their level of development, amount of violence, exposure to armed conflicts and level of fragility. But they share several risks to stability and security that manifest at the subregional level. While some of these risks

are directly visible at the context level, including the presence of uprooted people, others are only visible when taking the entire subregion as the unit of analysis. Thus, to understand the impact of actions and the root causes driving fragility in the region, it is not enough to perform single-level analysis of fragility. Without an understanding of how fragility manifests across the totality of the subregion, progress made at the context level risks being disrupted and reversed by risks emanating from the subregional level.

Subnational fragility

Lack of data limits analysis of subnational fragility, particularly for a replication of the OECD fragility framework using subnational indicators. However, initiatives such as the Geo-Referenced Infrastructure and Demographic Data for Development (GRID3), the African Regional Data Cube, and the Index for Risk Management (INFORM) Subnational Risk Index and the OECD, World Bank United Nations Development Programme and other institutions have attempted to broaden access to and use of subnational data. DAC members are supporting such initiatives. There is significant potential to mobilise a coalition of actors to continue scaling these data applications and drawing attention to pockets of fragility within contexts. Doing so can help policy makers move “beyond the tyranny of averages” (Custer et al., 2017^[111]) to target resources based on need and further reach populations left behind. Such analysis can point to additional sources of variation to guide differentiated approaches that target sources of risks and resilience. It also can complement other forms of data collection, such as surveys and stakeholder interviews, to provide a holistic assessment of subnational needs from a diversity of perspectives. It is important to note that subnational pockets of fragility are often not isolated: they can be shaped by national-level exclusion, such as political marginalisation, clientelism, and state capture (Cheng, Goodhand and Meehan, 2018^[112]). Thus, while understanding such pockets can be useful to assist targeting, it is important that targeting is complemented by a consideration of national and international sources of risk and resilience that may affect sub-national manifestations of fragility. After all, building on the analysis in Chapter 2, all levels of a system affect each other.

To facilitate an approach to analysing fragility subnationally, Box 3.2 presents a case study of subnational fragility in Chad that uses a measure of risks of fragility at the first administrative level in the INFORM Subnational Risk Index. The OECD fragility framework sources several indicators of risks and coping capacities from the INFORM Global Risk Index, some of which are replicated at the subnational level. The goal of the Subnational Risk Index is to support joint approaches among humanitarian, development and peace actors in managing risk and building resilience within countries. As such, the tool has analytical and operational relevance. It can improve the targeting of assistance relative to need; strengthen strategic co-ordination based on comparative advantages and resources; and provide a guiding framework for community-level efforts. Additionally, it can highlight certain regions or areas from which risks are emerging that affect the rest of the country. Actors in contexts such as Chad already use such spatial analysis to inform their decision making. The challenge is scaling such resources and making them readily available with timely and comprehensive data.

Box 3.2. Perspectives on subnational fragility: The case study of Chad

The map of Chad in Figure 3.4 shows subnational areas with high risks, as measured by INFORM indicators related to hazard and exposure, vulnerability and lack of coping capacity. The interpretation of the map is straightforward. This paper does not employ more rigorous spatial techniques to analyse subnational characteristics, though the OECD will look into these applications for analysis of crises and

of dynamic stability at the global level (de Weijer, 2013^[69]). However, disaggregating the analysis geographically to consider regions, subregions, individual contexts and subnational areas reveals complexity and variation. Such variation is an essential feature of complex, adaptive systems. Understanding it can help practitioners devise tailored strategies to navigate such systems.

Clusters of fragility

Clusters of fragility provide another insight into systems. The clustering approach for this paper, explained in greater detail in Annex A, groups all 175 contexts covered on the 2020 fragility framework into six clusters based on shared quantitative characteristics in each of the five dimensions. The clusters are not predetermined. Rather, they are created in a way that maximises within-cluster similarity and across-cluster dissimilarity.

These clusters are an indicative aid for the qualitative assessment of fragility. By using their contextual knowledge and expertise, a diverse group of experts from donor agencies, academia and international organisations ranked the clusters based on the severity of fragility exhibited by the contexts in each cluster collectively. There are five rankings: severe, high, moderate, low and minor. The shading in Figure 1.1, and on the interactive fragility framework and maps on the States of Fragility platform, reflects the ranking of clusters within each dimension. Tukey's test was performed to identify the underlying quantitative attributes that distinguish clusters from each other, the details of which are available Annex A.

This clustering approach identifies patterns among fragile contexts that can prompt deeper reflection and insight to inform peer learning. Understanding these shared attributes can help “simplify the wickedness of the fragility problem set” (Gisselquist, 2015, p. 1272^[14]). This approach also isolates specific risks and coping capacities that distinguish one cluster from other clusters and that represent particular weaknesses or strengths of that cluster. Doing so can inform targeted preventive action (Box 3.3).

This method thus provides a middle ground between using one-size-fits-all approaches, which are ineffective, and limiting the application of lessons from one context to another under the pretence that each context is uniquely complex, which can frustrate practitioners. In this way, policy makers can embrace diversity while finding ground for common approaches. Other institutions are pursuing similar methods to unpack patterns in fragility, with references to constellations (Ziaja, Grävingholt and Kreibaum, 2019^[56]) and typologies (Corral et al., 2020^[20]). Like the rest of the fragility framework, this clustering is neither predictive nor programmatic. This section assesses the clusters and their distinguishing characteristics by dimension of fragility.

Box 3.3. Intersections of risks and coping capacities

The clustering approach allows a discussion of intersections of risks and coping capacities across the dimensions of fragility. Such intersections are difficult to model statistically in a way that facilitates policy application. One approach is to identify contexts that are in the same cluster across all five dimensions of fragility and thus have similar vulnerabilities. Though such vulnerabilities manifest differently even in contexts in the same cluster, identifying similarities across clusters offers a starting point for generalisability. The States of Fragility platform details these similarities in greater detail in each fragile context profile.

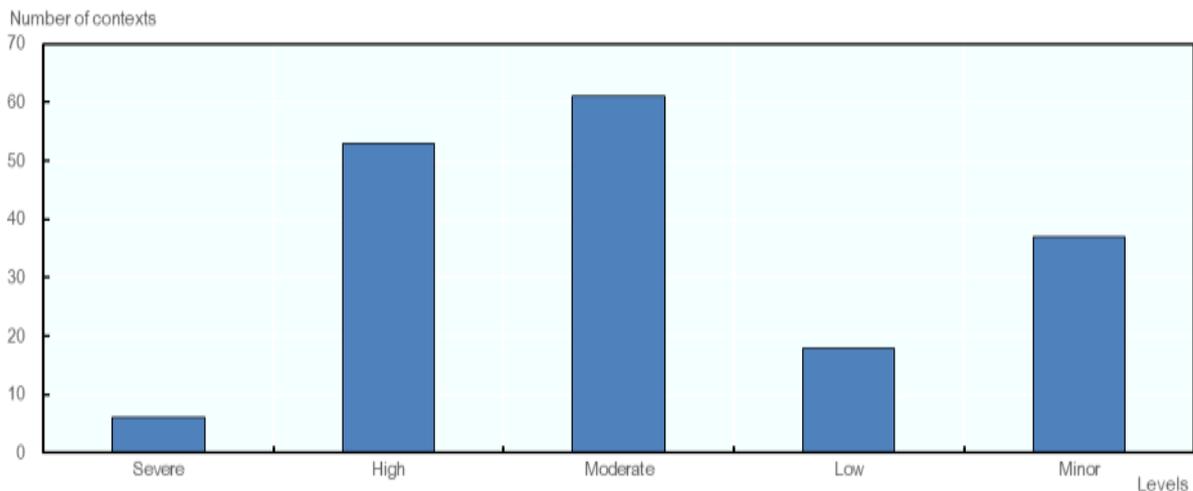
Across all 175 contexts, analysis for this paper identified 34 groups of contexts that share the same cluster across all five dimensions. Somalia and Yemen are an example of two extremely fragile contexts that are experiencing severe fragility in all five dimensions. Across the economic and environmental dimensions, they face shared risks related to GDP growth, aid dependence, urbanisation, socio-economic vulnerability, vulnerability to infectious diseases and environmental performance. It is possible for an extremely fragile context to be in the same cluster across all five dimensions with other fragile contexts, as in the case for Comoros, Guinea-Bissau and Haiti. A non-fragile context may also share clusters with fragile contexts, as is the case for Eswatini, Malawi and Zambia; all are non-fragile, with Malawi having exited the fragility framework in 2020. In these instances, and despite contexts in a cluster having shared characteristics, the composition of fragility across dimensions manifests in such a way that Malawi fell below the threshold for a fragile context while others exceeded that threshold.

There are two implications for policy makers and reformers engaging in fragile contexts. While acknowledging the unique complexity of each context, policy makers can look to apply relevant lessons from one context to another to inform targeted, iterative and adaptive approaches. The clustering approach can be particularly useful when complemented by in-depth, qualitative case studies such as those discussed by Schreiber and Loudon (2020^[73]). Additionally, these comparisons can inform more holistic risk and resilience assessments at the context level by identifying sources of vulnerability in a context across its dimensions of fragility. The OECD will explore further this mixed methods application in the coming months.

Economic

The economic dimension measures vulnerabilities stemming from weak economic fundamentals, and/or a high exposure to macroeconomic shocks as well as a lack of coping capacities to mitigate their impact. Economic fragility affects the wellbeing and prosperity of individual people, households and society as a whole. Figure 3.3 shows the distribution of the 175 contexts across the clusters representing severe, high, moderate, low, and minor economic fragility. Five of the six contexts in the cluster representing severe economic fragility are also classified as extremely fragile in the fragility framework. Four of them are in the MENA region and two in sub-Saharan Africa. Compared to those in other clusters, the contexts in the severely fragile cluster in the economic dimension perform poorly on measures related to the share of women in the labour force and food security as well on GDP growth, which is a risk to economic fragility. These contexts are also aid dependent, which is also a risk indicator.

Figure 3.4. Distribution of contexts across levels of economic fragility



In contrast, 53 of the 175 contexts are in the 2 clusters representing high economic fragility. Of these, 31 are in one cluster and 22 are in the other; 35 are in sub-Saharan Africa; and 27 of these contexts are middle-income economies. Only 20% in these two clusters are experiencing armed conflict, according to the thresholds presented in Chapter 1. Finally, 8 of these 53 contexts are extremely fragile and 33 are other fragile, meaning that this cluster captures 41 of the total 57 fragile contexts. The 31 contexts in one of the two clusters perform well on measures related to women in the labour force and poorly on measures related to food security, education and socio-economic vulnerability. The 22 contexts in the other cluster do not exhibit any distinguishing characteristics. Nor do the contexts in the cluster representing moderate economic fragility, which contains 61 contexts.

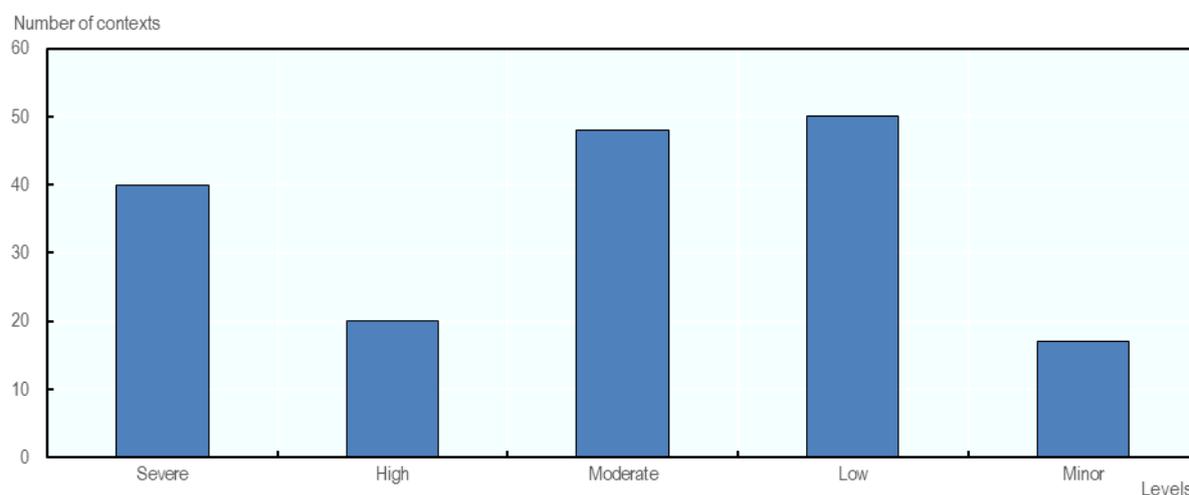
There are 18 contexts in the cluster signifying low economic fragility. Only 15 of these contexts are ODA-eligible; 12 of these are upper middle-income economies; the only fragile context is Iran. Compared to those in other clusters, the contexts in this cluster perform well on the food security indicator, and there are no demonstrable weaknesses on the other indicators. Finally, 37 contexts fall in the cluster for minor economic fragility, 35 of which are high-income economies. Relative to the rest, this cluster performs well on all coping capacity indicators. These contexts also have particularly low risks related to socio-economic vulnerability, youth unemployment and aid dependency. Their low aid dependency risk is unsurprising given that most are non-ODA eligible.

Environmental

The environmental dimension measures vulnerability to climactic and health risks that affect livelihoods as well as legal and social institutions to counterbalance such risks. Figure 3.5 shows the distribution of the 175 contexts across the clusters representing severe, high, moderate, low, and minor environmental fragility. There is considerable diversity among the 40 contexts that are severely environmental fragile. The presence of so many contexts in this category reflects the global and persistent effects of climate change and other climate-related risks. Most of these contexts, 37 of the 40, are in sub-Saharan Africa, which underscores the climate-related risks faced by the African subcontinent. More specifically, all the contexts in the Great Lakes subregion and Horn of Africa are in this cluster. The severely fragile contexts in this dimension face significant challenges. Compared to contexts in other clusters, they are weak in coping capacities related to government effectiveness and food security and face high risks related to urbanisation, socio-economic vulnerability, the risk of infectious disease and environmental performance.

The challenges faced by these contexts make them uniquely susceptible to the health and economic consequences of COVID-19.

Figure 3.5. Distribution of contexts across levels of environmental fragility



Among the 20 contexts in the cluster representing high environmental fragility, 16 are fragile on the fragility framework. They have similar challenges in coping capacities associated with government effectiveness and food security and similar risks associated with socio-economic vulnerability, environmental performance and disaster risk. Relatedly, 13 of these contexts are in the regions of East Asia and Pacific or South and Central Asia, while only 4 are in sub-Saharan Africa. The contexts in the economic and environmental clusters exhibit shared regional characteristics, much as the analysis from the fragility framework in this chapter finds that contexts in the same geographic area face similar environmental issues. In the two clusters that represent moderate environmental fragility, 35 of the 48 contexts also face levels of disaster risk that are unique to them.

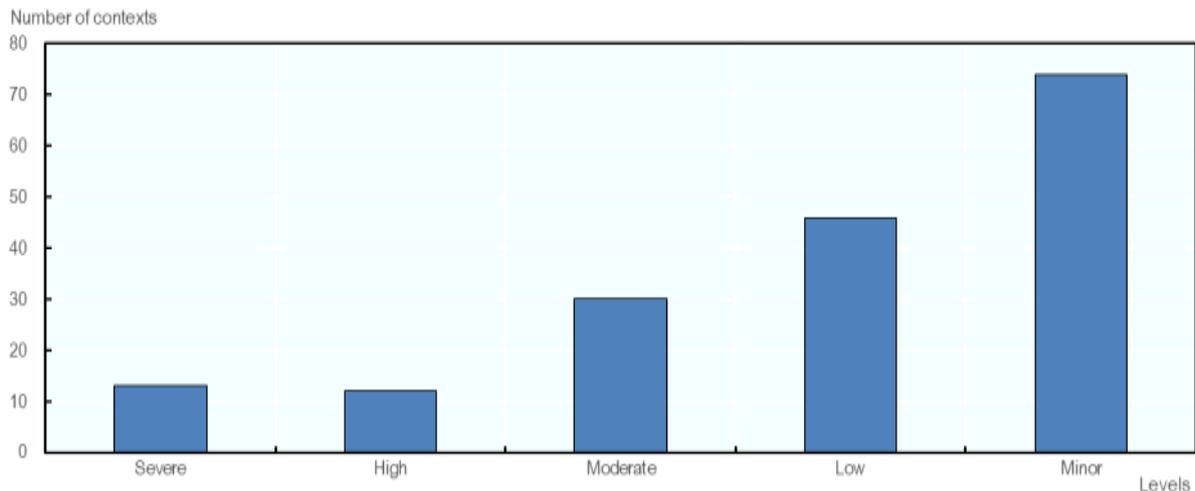
In the clusters manifesting low and minor environmental fragility, contexts perform better on several indicators than those in clusters of greater environmental fragility. In particular, they are strong on coping capacity indicators related to rule of law and government effectiveness and have low risks related to socio-economic vulnerability and environmental performance. These two clusters thus contrast with those representing severe and high environmental fragility. The 50 contexts that exhibit low environmental fragility also have low urbanisation risks compared to contexts in other clusters. The 17 contexts with minor environmental fragility have low disaster risks in addition to their strong performance on the other indicators.

Political

The political dimension measures vulnerability to risks inherent in political processes as well as coping capacities to strengthen state accountability and transparency. Figure 3.6 shows the distribution of the 175 contexts across the clusters representing severe, high, moderate, low, and minor political fragility. Of the 13 severely political fragile contexts, 10 face resource dependence, highlighting links between political settlements and natural resources (Chapter 1). In addition, 8 of these contexts are in sub-Saharan Africa and 7 are in active conflict. They are susceptible to a range of factors affecting their political fragility. For example, compared to other clusters, contexts in the politically fragile cluster show weaknesses in coping capacity indicators related to voice and accountability, political stability, legislative and judicial constraints, and government effectiveness. These severely politically fragile contexts also exhibit high risks on each of

the three risk-related indicators of lack of physical integrity, political corruption and clientelism. Similar challenges face 12 highly political fragile contexts. In particular, these perform poorly on two of the indicators of coping capacity, political stability and government effectiveness, and have high risks of political corruption. Nine of these contexts also are resource-dependent, and seven of them are middle-income economies. This analysis underscores the prevalence of political fragility in middle-income contexts.

Figure 3.6. Distribution of contexts across levels of political fragility



The moderately political fragile cluster comprises 30 contexts that have lower levels of judicial and legislative constraints than contexts in other clusters. Of these, 22 contexts are middle-income and 13 are fragile on the fragility framework. The contexts with low political fragility do not have distinguishing characteristics. Finally, the 46 contexts in the two clusters representing minor political fragility have low vulnerability in all three risk-related indicators, as well as high coping capacities in five of the seven coping capacity indicators measuring voice and accountability, political stability, legislative and judicial constraints on executive power, and government effectiveness. A majority, or 34 of the 46, also perform well on a sixth coping capacity related to the independence of their subnational governments.

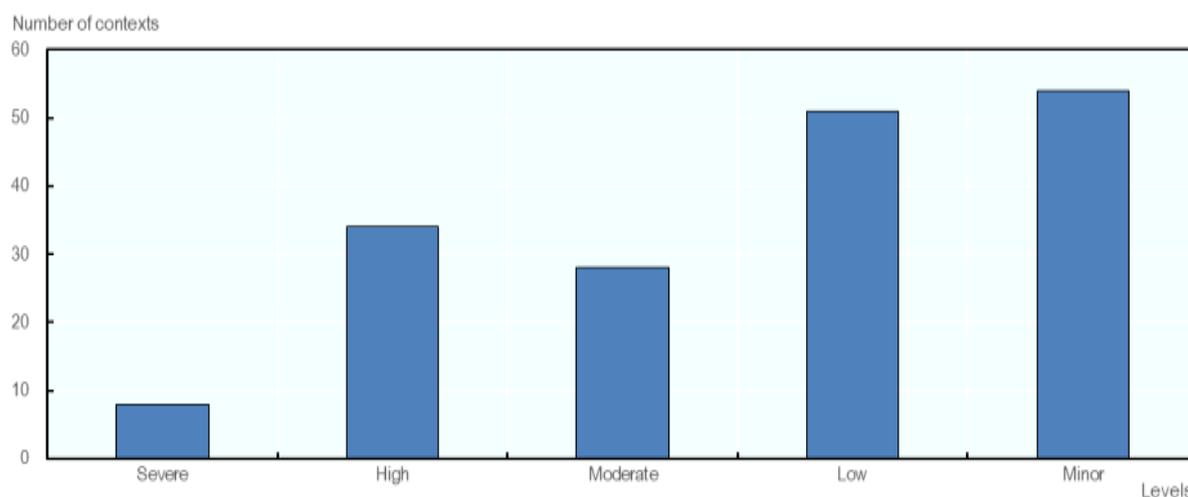
Overall, the results of this analysis show clear traits that distinguish the clusters in the political dimension and provide an opportunity for initiatives that target political determinants of fragility. Marley and Desai (2020^[7]), in a separate background paper for the 2020 States of Fragility series, explore the links between governance and fragility. Apart from the severely politically fragile contexts, there is also considerable regional heterogeneity within clusters. This underscores the value of clustering contexts according to shared characteristics rather than by fixed geographic, income-related or thematic attributes.

Security

The security dimension measures vulnerability to violence and crime, capturing the presence of direct violence as well as institutions to prevent and mitigate it. Figure 3.7 shows the distribution of the 175 contexts across the clusters representing severe, high, moderate, low, and minor security fragility. Given the links between violence and fragility (Chapter 1), it is not surprising that seven of the eight contexts with severe security-related risks are also considered extremely fragile in the fragility framework. A different set of seven also are commodity-dependent, and six of the eight are low-income economies. Four of these contexts are in MENA, three are in sub-Saharan Africa, and one – Afghanistan – is in South Asia. That one of these eight, Syria, comprises its own cluster with unique risks related to battle-related deaths and

non-state and one-sided violence, attests to the intensity of violent conflict in the country. A second cluster comprises seven contexts that also face severe security-related fragility exhibit unique weaknesses in coping capacities related to the rule of law and government control over territory as well as higher than average risks of battle-related deaths, violent crime, non-state and one-sided violence, terrorism, and violent conflict. These seven contexts, given their uniquely high risks to violent conflict, can inform donors' conflict prevention efforts (Desai, 2020^[26]).

Figure 3.7. Distribution of contexts across levels of security fragility

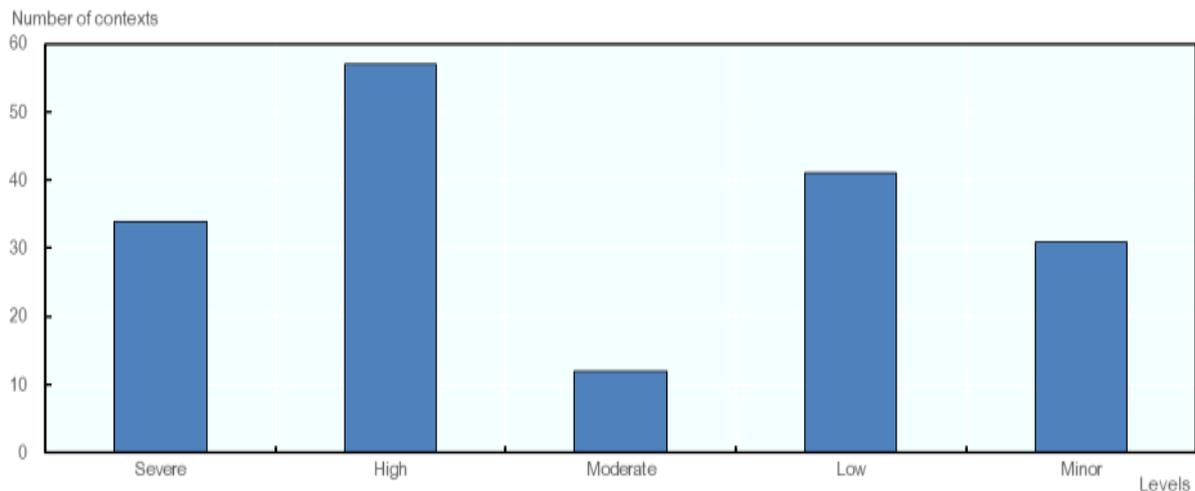


The 62 contexts that fall into clusters of high and moderate security-related fragility do not exhibit distinguishing traits. On the other hand, the 51 contexts with low security-related fragility perform well in the measure of control over territory. They also have uniquely low risks to violent conflict, suggesting they offer an opportunity for further qualitative assessments so that lessons learned can be applied to conflict prevention in high-risk contexts. Only 13 of these contexts are fragile in the fragility framework; 39 are middle income and 8 are high income. Notably, 10 of the 51 are least developed countries.

Finally, 41 of the 54 contexts with minor security-related fragility, amounting three quarters of the total, are high income, with high levels of rule of law and control over territory and low levels of gender discrimination, violent crime and violent conflict risks. These characteristics demonstrate the links between effective governance, and particularly gender-based protections, and low security fragility.

Societal

The societal dimension measures vulnerability to risks affecting social capital and cohesion, particularly those that stem from vertical and horizontal inequalities, and the presence of institutions to counteract such risks. Similar to the environmental dimension, the societal dimension has 34 contexts in the cluster representing extreme societal fragility, among them 16 that are LDCs and 13 that are in sub-Saharan Africa, and 10 that are extremely fragile. Half of these 34 contexts are in the early-demographic dividend, which is meaningful as they have young populations living in conditions of inequality that limit human capital and may stir resentment that leads to violence (UN/World Bank, 2018^[35]). Figure 3.8 shows the distribution of the 175 contexts across the clusters representing severe, high, moderate, low, and minor societal fragility.

Figure 3.8. Distribution of contexts across levels of societal fragility

These contexts perform poorly, relative to contexts in other clusters, in all three coping indicators that measure voice and accountability, strength of civil society, and access to justice. They also face higher than average horizontal inequality. Likewise, the 12 contexts facing moderate societal fragility, of which only 2 are fragile on the fragility framework, are weak in all three coping capacity indicators relative to other clusters. Seven of these contexts are upper middle-income. Meanwhile, the 57 contexts facing high societal fragility are particularly vulnerable to income inequality. The majority of the 57, or 31 contexts, are in sub-Saharan Africa, and 13 of these 31 are in Western Africa.

Finally, all 31 contexts in the cluster representing minor societal fragility are high-income economies. Compared to those in other clusters, the contexts in this cluster perform well on measures related to voice and accountability and access to justice, and they exhibit lower than average risks to horizontal, income and gender inequality. The latter finding is notable, as gender equality is associated with lower levels of social fragility, and it aligns with evidence on the connections between gender equality and fragility, particularly the prevalence of gender discrimination and sexual and gender-based violence in fragile contexts (OECD, 2017_[115]). These connections underscore the importance of a focus on leaving no one behind as members address the multidimensional drivers of fragility.

What this means for DAC members

This chapter analyses varying states of fragility across levels and over time. The state of fragility internationally is characterised by dynamic stability, with little variation over time but significant undercurrents that interact to result in different states of fragility across subsystems.

This is systems thinking in practice. It is important that donors do not evaluate a system at any given level in isolation. Rather, by moving from the global to the local, donors can unpack sources of variation that guide the development of differentiated approaches to addressing the root causes of fragility. There is significant momentum to explore variation at the subnational level and derive granular insights, while at the same time allowing for generalisability and shared practices that can inform peer learning and coordination. The fragility framework can fulfil both purposes, striking a balance between the inherent complexity of fragility and the need for simplicity to guide action. Doing so can help inform pathways from fragility to resilience, recognising that such pathways are non-linear and require sustained investment to support the formation of peaceful, just, and inclusive societies that leave no one behind. Moving forward,

the OECD will continue to consider this balance when developing and refining the fragility framework to be fit for fragility in the Decade of Action.

Notes

¹The analysis is limited to these three reports as *States of Fragility 2016: Understanding Violence* introduced a new OECD approach to analysing fragility.

² Nicaragua also has not appeared in any previous OECD States of Fragility reports. Togo featured in *States of Fragility 2015: Meeting Post-2015 Ambitions* and in previous OECD fragility reports.

³ This is defined as a shift of more than one standard deviation from the average absolute difference.

⁴ See Annex B for a detailed explanation of the clustering methodology.

⁵ It uses 2020 population figures estimated from the UN database, *2019 Revision of World Population Prospects*, (UN DESA, 2019^[2]), at <https://population.un.org/wpp/>.

⁶ There is a notable cut-off in data availability before 2012, which explains why we restrict our time series analysis from 2012 onwards. This also explains why we limit our interpretation of trends to 2018 rather than 2019. More information on our methodology for statistical imputation and interpolation can be found on the States of Fragility platform.

⁷ ODA-eligible contexts are those defined as such defined by the OECD.

References

- ACAPS (2020), *Global Risk Analysis: March 2020*, [93]
https://www.acaps.org/sites/acaps/files/products/files/20200325_acaps_global_risk_analysis_march_2020.pdf.
- Alonso, J., A. Cortez and S. Klasen (2014), “LDC and other country groupings: How useful are current approaches to classify countries in a more heterogeneous developing world?”, *CDP Background Paper*, No. 21, United Nations Department of Economic and Social Affairs, New York, https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/bp2014_21.pdf. [21]
- Andrews, M., L. Pritchett and M. Woolcock (2017), *Building State Capability: Evidence, Analysis, Action*, Oxford University Press, [18]
<http://dx.doi.org/10.1093/acprof:oso/9780198747482.001.0001>.
- Betts, F. (1992), “How systems thinking applies to education”, *Educational Leadership*, Vol. 50/3, pp. 38-41, <http://www.ascd.org/publications/educational-leadership/nov92/vol50/num03/How-Systems-Thinking-Applies-to-Education.aspx>. [60]
- Bosetti, L., A. Ivanovic and M. Munshey (2016), “Fragility, risk, and resilience: A review of existing frameworks”, *Background Paper*, United Nations University Centre for Policy Research, New York, <https://i.unu.edu/media/cpr.unu.edu/attachment/2232/Assessing-Fragility-Risk-and-Resilience-Frameworks.pdf>. [119]
- Bosquet, F. and O. Fernandez-Taranco (2020), “COVID-19 in fragile settings: Ensuring a conflict-sensitive response”, *United Nations Blog*, <https://www.un.org/en/un-coronavirus-communications-team/covid-19-fragile-settings-ensuring-conflict-sensitive-response>. [9]
- Brinkerhoff, D. (2014), “State fragility and failure as wicked problems: beyond naming and taming”, *Third World Quarterly*, Vol. 35/2, pp. 333-344, <https://doi.org/10.1080/01436597.2014.878495>. [140]
- Carment, D., K. Muñoz and Y. Samy (2020), *Fragile and Conflict-Affected States in the Age of COVID 19: A 2020 Country Indicators for Foreign Policy Report*, Country Indicators for Foreign Policy, Carleton University, <https://carleton.ca/cifp/wp-content/uploads/2020-CIFP-Fragility-Report.pdf>. [16]
- Carment, D. and Y. Samy (2019), *Exiting the Fragility Trap: Rethinking Our Approach to the World’s Most Fragile States*, Ohio University Press, Athens, OH. [57]

- Cheng, J., J. Goodhand and P. Meehan (2018), *Elite Bargains and Political Deals Project Synthesis Paper: Securing and Sustaining Elite Bargains that Reduce Violent Conflict*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765882/Elite_Bargains_and_Political_Deals_Project_-_Synthesis_Paper.pdf. [112]
- Christie, A. and D. Green (2019), *The Case for an Adaptive Approach to Empowerment and Accountability Programming in Fragile Settings: Synthesis Report*, Itad, Hove, UK, https://www.itad.com/wp-content/uploads/2020/02/A4EA_Adaptive_Management_Synthesis_Paper-1.pdf. [120]
- Collier, P. (2010), *The Plundered Planet: Why We Must – and How We Can – Manage Nature for Global Prosperity*, Oxford University Press. [29]
- Collier, P., T. Besley and A. Khan (2018), *Escaping the Fragility Trap*, International Growth Centre, London, <https://www.theigc.org/wp-content/uploads/2018/04/Escaping-the-fragility-trap.pdf>. [66]
- Collier, P. and A. Venables (2010), *Natural resources and state fragility*, European University Institute, <https://cadmus.eui.eu/handle/1814/13860>. [133]
- Colville, J. and R. Roushas (2020), “Systems thinking: How not to miss the forest for the trees”, *UNDP Accelerator Labs blog*, <https://medium.com/@acclabs/systems-thinking-how-not-to-miss-the-forest-for-the-trees-6632eb1fa609>. [41]
- Corral, P. et al. (2020), *Fragility and Conflict: On the Frontlines of the Fight Against Poverty*, World Bank Group, Washington, DC, <https://openknowledge.worldbank.org/bitstream/handle/10986/33324/9781464815409.pdf>. [20]
- Custer, S. et al. (2017), *Beyond the Tyranny of Averages: Development Progress from the Bottom Up*, AidData at William & Mary, Williamsburg, VA, <https://www.aiddata.org/publications/beyond-the-tyranny-of-averages-development-progress-from-the-bottom-up>. [111]
- Day, A. and J. Caus (2020), *Conflict Prevention in the Sahel: Emerging Practice Across the UN*, United Nations University, New York, https://i.unu.edu/media/cpr.unu.edu/post/3640/UNU_Conflict_Prevention_FINAL_WEB.pdf. [106]
- Day, A., D. Druet and L. Quaritsch (2020), *When Dictators Fall: Preventing Violent Conflict During Transitions from Authoritarian Rule*, United Nations University, New York, <https://cpr.unu.edu/when-dictators-fall.html>. [103]
- de Coning, C. (2019), “Utilising an adaptive approach to leverage greater context-specific participation in conflict prevention and conflict mitigation in Africa”, *Africa Insight*, Vol. 49/3, pp. 7-19, <https://journals.co.za/content/journal/10520/EJC-1d51a1a7b5>. [64]
- de Coning, C. (2016), “From peacebuilding to sustaining peace: Implications of complexity for resilience and sustainability”, *Resilience*, Vol. 4/3, pp. 166-181, <http://dx.doi.org/10.1080/21693293.2016.1153773>. [61]
- de Weijer, F. (2013), “Resilience: A Trojan horse for a new way of thinking?”, *ECDPM Discussion Paper*, No. 139, European Centre for Development, Maastricht, Netherlands, <https://ecdpm.org/publications/resilience-trojan-horse-new-way-of-thinking/>. [69]
- Desai, H. (2020), “Conflict prevention in fragile contexts”, OECD Publishing, Paris. [26]

- Desai, H. (2020), "Official development assistance in fragile contexts", OECD Publishing, Paris. [52]
- Devex (2020), "Fragility to resilience: Getting to the root cause of the problem", [76]
<https://www.devex.com/news/sponsored/fragility-to-resilience-getting-to-the-root-cause-of-the-problem-96606>.
- DFID (2017), "Methodology note: Fragile and conflict-affected states and regions", United Kingdom Department for International Development (DFID), London, [55]
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815510/Methodology-note-Fragile-and-conflict-affected-states-and-regions.pdf.
- Dillon, N. (2019), *Breaking the Mould: Alternative Approaches to Monitoring and Evaluation*, ALNAP, London, [116]
<https://www.alnap.org/help-library/breaking-the-mould-alternative-approaches-to-monitoring-and-evaluation>.
- Disaster Risk Management Knowledge Centre (2019), *Chad INFORM Risk (database)*, European Commission, Luxembourg, [114]
<https://drmkc.jrc.ec.europa.eu/inform-index/Subnational/Chad>.
- European Network for Central Africa (2020), "The COVID-19 response should leave no one behind: The pandemic's implications in the", *Policy Report*, https://www.eurac-network.org/sites/default/files/20200527_eurac_policyreport_covid19_vf_2.pdf. [110]
- Ferreira, I. (2018), "An empirical analysis of state fragility and growth: The impact of state ineffectiveness and political violence", *WIDER Working Paper*, No. 2018/29, United Nations University World Institute for Development Economics Research, Helsinki, [117]
<http://dx.doi.org/10.35188/UNU-WIDER/2018/471-1>.
- Ferreira, I. (2017), "Measuring state fragility: A review of the theoretical groundings of existing approaches", *Third World Quarterly*, Vol. 38/6, pp. 1291-1309, [12]
<https://doi.org/10.1080/01436597.2016.1257907>.
- Fiala, O. et al. (2020), *Children in monetary poor households: baseline and COVID-19 impact for impact for 2020 and 2021*. [11]
- Forichon, K. (2020), "Human capital in fragile contexts", OECD Publishing, Paris. [6]
- Freedom House (2020), *Freedom in the World 2019 - Nicaragua (webpage)*, [87]
<https://freedomhouse.org/country/nicaragua/freedom-world/2019>.
- Furceri, D., P. Loungani and J. Ostry (2020), "How pandemics leave the poor even farther behind", *IMF Blog*, <https://blogs.imf.org/2020/05/11/how-pandemics-leave-the-poor-even-farther-behind/>. [39]
- G20 (2020), *G20 Finance Ministers and Central Bank Governors Meeting Communique*, G20 Secretariat, [138]
[https://g20.org/en/media/Documents/G20_FMCBG_Communicu%C3%A9_EN%20\(2\).pdf](https://g20.org/en/media/Documents/G20_FMCBG_Communicu%C3%A9_EN%20(2).pdf).
- Gelbard, E. et al. (2015), *Building Resilience in Sub-Saharan Africa's Fragile States*, International Monetary Fund, Washington, DC, [19]
<http://dx.doi.org/10.5089/9781513550015.087>.
- Gisselquist, R. (2015), "Varieties of fragility: Implications for aid", *Third World Quarterly*, Vol. 36/7, pp. 1269-1280, <http://dx.doi.org/doi.org/10.1080/01436597.2015.1041104>. [14]

- Gleick, P. and C. Iceland (2018), *Water, Security and Conflict*, [126]
<https://www.wri.org/publication/water-security-and-conflict>.
- Global Obesity Prevention Center et al. (2016), *SPACES MERL: Systems and Complexity White Paper*, United States Agency for International Development, Washington, DC, [49]
https://pdf.usaid.gov/pdf_docs/PA00M7QZ.pdf.
- Global Platform on Disaster Risk Reduction 2019 (2019), *Co-chairs' Summary*, [131]
https://www.preventionweb.net/files/58809_chairsummary.pdf.
- Global Witness (2020), *Luanda leaks expose role of financial secrecy and Western professionals in moving tainted money*, [34]
<https://www.globalwitness.org/en/press-releases/luanda-leaks-expose-role-financial-secrecy-and-western-professionals-moving-tainted-money/>.
- Green, D. (2019), "What does the evidence tell us about 'thinking and working politically' in development assistance?", *Oxfam From Poverty to Power blog*, [81]
<https://oxfamblogs.org/fp2p/what-does-the-evidence-tell-us-about-thinking-and-working-politically-in-development-assistance/>.
- Green, D. (2018), *The lure of the complicated: systems thinking, data and the need to stay complex*, *From Poverty to Power*, [139]
<https://oxfamblogs.org/fp2p/the-lure-of-the-complicated-systems-thinking-data-and-the-need-to-stay-complex/>.
- Green, D. (2016), *How Change Happens*, Oxford University Press. [67]
- Gregorian, H., L. Olson and B. Woodward (2019), "Understanding peacebuilding coordination and impact using a complex adaptive systems method", *Journal of Peacebuilding & Development*, Vol. 15/1, pp. 91-110, [59]
<https://doi.org/10.1177/1542316619871924>.
- Halkia, M. et al. (2020), "The Global Conflict Risk Index: A quantitative tool for policy support on conflict prevention", *Progress in Disaster Science*, Vol. 6, [40]
<https://doi.org/10.1016/j.pdisas.2020.100069>.
- Hoeffler, A. (2019), "Fragility and development in Africa: An introduction", *Review of Development Economics*, Vol. 23/3, pp. 1067-1072, [22]
<https://doi.org/10.1111/rode.12616>.
- Human Rights Watch (2020), "Honduras: Events of 2019", in *World Report 2020*, [90]
<https://www.hrw.org/world-report/2020/country-chapters/honduras>.
- Human Rights Watch (2019), *Crackdown in Nicaragua: Torture, Ill-Treatment, and Prosecutions of Protesters and Opponents*, [88]
<https://www.hrw.org/report/2019/06/19/crackdown-nicaragua/torture-ill-treatment-and-prosecutions-protesters-and>.
- Humphreys, M., J. Sachs and J. Stiglitz (eds.) (2007), *Escaping the Resource Curse*, Columbia University Press, New York. [30]
- Hynes, W., M. Lees and J. Müller (eds.) (2020), *Systemic Thinking for Policy Making: The Potential of Systems Analysis for Addressing Global Policy Challenges in the 21st Century*, *New Approaches to Economic Challenges*, OECD Publishing, Paris, [62]
<https://dx.doi.org/10.1787/879c4f7a-en>.
- Ingram, G. and J. Papoulidis (2018), "Fragile states and the search for 'what works'", *Brookings Future Development blog*, [77]
<https://www.brookings.edu/blog/future-development/2018/11/08/fragile-states-and-the-search-for-what-works/>.

- Ingram, G. and J. Papoulidis (2018), "From fragility to resilience: Recommendations for strengthening USAID's 'self-reliance' approach", *Brookings Up Front blog*, <https://www.brookings.edu/blog/up-front/2018/08/17/from-fragility-to-resilience-recommendations-for-strengthening-usaids-self-reliance-approach/#:~:text=Blending%20Self%2Dreliance%20and%20Resilience,capacities%20for%20dealing%20with%20them.> [70]
- Institute for Economics and Peace (2020), *Global Peace Index 2020: Measuring Peace in a Complex World*, http://visionofhumanity.org/app/uploads/2020/06/GPI_2020_web.pdf. [37]
- International Alert (2016), *Making trade work for peace in the Great Lakes*, <https://www.international-alert.org/news/making-trade-work-for-peace-in-the-great-lakes>. [109]
- International Monetary Fund (2019), "Democratic Republic of Timor-Leste", *IMF Country Report*, No. 19/124, <https://www.imf.org/en/Publications/CR/Issues/2019/05/07/Democratic-Republic-of-Timor-Leste-2019-Article-IV-Consultation-Press-Release-Staff-Report-46874>. [96]
- Kanyangara, P. (2016), *Conflict in the Great Lakes Region: Root Causes, Dynamics and Effects*, African Centre for the Constructive Resolution of Disputes, Durban, South Africa, <https://www.accord.org.za/conflict-trends/conflict-great-lakes-region/>. [107]
- Kharas, H. and A. Rogerson (2017), "Back to the future: 5 lenses on the future of global development", *Brookings Future Development blog*, <https://www.brookings.edu/blog/future-development/2017/10/02/back-to-the-future-5-lenses-on-the-future-of-global-development/>. [42]
- Lakner, C. et al. (2020), *How Much Does Reducing Inequality Matter for Global Poverty? (English)*. [1]
- Lemay-Hébert, H. and X. Mathieu (2014), "The OECD's discourse on fragile states: Expertise and the normalisation of knowledge production", *Third World Quarterly*, Vol. 35/2, pp. 232-251, <http://dx.doi.org/10.1080/01436597.2014.878129>. [15]
- Leone, F. (2019), "UN Secretary-General announces annual platform to check on SDG Decade of Action", *SDG Knowledge Hub*, <https://sdg.iisd.org/news/un-secretary-general-announces-annual-platform-to-check-on-sdg-decade-of-action/>. [8]
- Mahler, D. et al. (2020), *The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit*. [142]
- Marley, J. and H. Desai (2020), "Fragility and Agenda 2030", OECD Publishing, Paris. [7]
- Marquette, H. (2019), "What we're missing by not getting our TWP alphabet straight", *Oxfam From Poverty to Power blog*, <https://oxfamblogs.org/fp2p/what-were-missing-by-not-getting-our-twp-alphabet-straight/>. [79]
- Medecins Sans Frontieres (2018), *Climate Change and Health: An Urgent New Frontier for Humanitarianism*, <http://www.lancetcountdown.org/media/1422/2018-lancet-countdown-policy-brief-msf.pdf>. [127]
- Menkhaus, K. (2010), "State fragility as a wicked problem", *PRISM*, Vol. 1/2, pp. 85-100, https://www.jstor.org/stable/26469043?seq=1#metadata_info_tab_contents. [47]
- Messner de Latour, J. (2020), *There is no COVID-19 here*, Fund for Peace, Washington, DC, <https://fundforpeace.org/2020/05/10/there-is-no-covid-19-here/>. [58]

- Michel, J. (2018), *Managing Fragility and Promoting Resilience to Advance Peace, Security, and Sustainable Development*, Center for Strategic and International Studies, Washington, DC, https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/180108_Michel_ManagingFragility_Web.pdf. [80]
- Milante, G. (2015), “Fragile systems and development”, *Oxford University Press OUPBlog*, <https://blog.oup.com/2015/11/fragile-states-systems-thinking/>. [48]
- Mizutori, M. and H. Hackmann (2020), “Opinion: From COVID-19 crisis comes opportunity to rethink risk”, *Thomson Reuters Foundation News*, <https://news.trust.org/item/20200601133947-b62v3>. [99]
- Monnier, C. and H. Mayar (2020), *Making Sure Peace Isn't a Casualty of COVID-19 in Fragile States*, <https://www.worldpoliticsreview.com/articles/28734/making-sure-peace-isn-t-a-casualty-of-covid-19-in-fragile-states>. [132]
- Mueller, H. (2018), *Fragility in the Data*, International Growth Centre, London, <https://www.theigc.org/wp-content/uploads/2018/04/Fragility-in-the-data.pdf>. [13]
- Nagarajan, C. et al. (2018), *Climate-Fragility Profile: Lake Chad Basin*, adelphi, Berlin, https://www.adelphi.de/en/system/files/mediathek/bilder/Lake%20Chad%20Climate-Fragility%20Profile%20-%20adelphi_0.pdf. [113]
- National Resource Governance Institute (2015), *The Resource Curse: The Political and Economic Challenges of Natural Resource Wealth*, https://resourcegovernance.org/sites/default/files/nrgi_Resource-Curse.pdf. [32]
- Natural Resource Governance Institute (2017), *2017 Resource Governance Index*, <https://resourcegovernance.org/sites/default/files/documents/2017-resource-governance-index.pdf>. [122]
- OECD (2020), *A systemic resilience approach to dealing with Covid-19 and future shocks*, OECD Publishing, Paris, https://read.oecd-ilibrary.org/view/?ref=131_131917-kpfefrdfnx&title=A-Systemic-Resilience-Approach-to-dealing-with-Covid-19-and-future-shocks. [46]
- OECD (2020), *Covid-19, Crises and Fragility*, OECD Publishing, Paris, <http://www.oecd.org/coronavirus/policy-responses/covid-19-crises-and-fragility-2f17a262/>. [10]
- OECD (2020), *DAC and CRS code lists*, Organisation for Economic Co-operation and Development, Paris, <http://www.oecd.org/development/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm>. [147]
- OECD (2020), *DAC List of ODA Recipients for reporting on aid in 2018 and 2019*, Organisation for Economic Co-operation and Development, Paris, <http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/DAC-List-of-ODA-Recipients-for-reporting-2018-and-2019-flows.pdf>. [104]
- OECD (2020), *States of Fragility 2020*. [105]
- OECD (2020), *States of Fragility platform (webpage)*, <http://www3.compareyourcountry.org/states-of-fragility/about/0/>. [5]

- OECD (2018), *States of Fragility 2018*, OECD Publishing, Paris, [3]
<https://dx.doi.org/10.1787/9789264302075-en>.
- OECD (2018), *States of Fragility 2018*, <https://doi.org/10.1787/9789264302075-en>. [141]
- OECD (2017), "Gender equality and women's empowerment in fragile and conflict-affected situations : A review of donor support", *OECD Development Policy Papers*, No. 8, OECD Publishing, Paris, <https://dx.doi.org/10.1787/b75a1229-en>. [115]
- OECD (2016), *Making climate finance work for women: Overview of bilateral ODA to gender and climate change*, <http://www.oecd.org/dac/gender-development/Making%20Climate%20Finance%20Work%20for%20Women%20-%20Copy.pdf>. [129]
- OECD (2016), *States of Fragility 2016: Understanding Violence*, OECD Publishing, Paris, [4]
<https://dx.doi.org/10.1787/9789264267213-en>.
- OECD (2015), *States of Fragility 2015: Meeting Post-2015 Ambitions*, OECD Publishing, Paris, [54]
<https://dx.doi.org/10.1787/9789264227699-en>.
- OECD (2014), *Guidelines for Resilience Systems Analysis - How to Analyse Risk and Build a Roadmap to Resilience*, OECD Publishing, Paris, [43]
<https://www.oecd.org/dac/Guidelines%20for%20Resilience%20Systems%20Analysis%20-%20Landscape%20Facilitation%20Guide.pdf>.
- OECD (2010), *Do No Harm: International Support for Statebuilding*, OECD Publishing, Paris, [83]
<https://www.oecd.org/dac/conflict-fragility-resilience/docs/do%20no%20harm.pdf>.
- OECD DAC (2019), "OECD/LEGAL/5019", in *DAC Recommendation on the Humanitarian-Development-Peace Nexus*, OECD Publishing, Paris, [74]
<https://legalinstruments.oecd.org/public/doc/643/643.en.pdf>.
- OECD DAC (2005), *A Proposal for Monitoring Resource Flows to Fragile States*, OECD Publishing, Paris, <http://www.oecd.org/dac/conflict-fragility-resilience/docs/Monitoring-resource-flows-to-fragile-states-2005.pdf>. [51]
- Office of the Director of National Intelligence, United States of America (2012), *Global Water Security*, <https://fas.org/irp/nic/water.pdf>. [125]
- Organization of American States (2020), *Mission to Support the Fight Against Corruption and Impunity in Honduras*, <http://www.oas.org/en/spa/dsdsm/maccih/new/mision.asp>. [91]
- Organization of American States (2018), *IACHR calls on the state of Nicaragua to cease the criminalization of protest and respect persons deprived of liberty and their families*, https://www.oas.org/en/iachr/media_center/PReleases/2018/187.asp. [86]
- Ortiz-Stapleton, S. et al. (2019), *Risk-informed Development: From Crisis to Resilience*, Overseas Development Institute, London, <https://www.odi.org/publications/11314-risk-informed-development-crisis-resilience>. [78]
- Papoulidis, J. (2020), *Five ways to build resilience in fragile health systems*, The New Humanitarian, <https://www.thenewhumanitarian.org/opinion/2020/05/13/Fragile-State-Index-global-health>. [143]

- Papoulidis, J. (2020), *Five ways to build resilience in fragile health systems*, The New Humanitarian, <https://www.thenewhumanitarian.org/opinion/2020/05/13/Fragile-State-Index-global-health>. [82]
- Pasanen, T. and I. Barnett (2019), "Supporting adaptive management: monitoring and evaluation tools and approaches", *Working Paper*, No. 569, Overseas Development Institute, London, <https://www.odi.org/publications/16511-supporting-adaptive-management-monitoring-and-evaluation-tools-and-approaches>. [72]
- Pettersson, T., S. Höglbladh and M. Öberg (2019), "Organized violence, 1989-2018 and peace agreements", *Journal of Peace Research*, Vol. 56/4, <https://doi.org/10.1177/0022343319856046>. [95]
- Ramalingam, B., M. Laric and J. Primrose (2014), *From best practice to best fit: Understanding and navigating wicked problems in international development*, Overseas Development Institute, London, <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9159.pdf>. [50]
- Reed, T. (2017), *Timor-Leste: Failing state or missed opportunity?*, <https://thediplomat.com/2017/07/timor-leste-failing-state-or-missed-opportunity/#:~:text=It%20can%20be%20argued%20that,becoming%20a%20more%20stable%20state>. [84]
- Ricigliano, R. and D. Chigas (2011), *Systems Thinking in Conflict Assessment: Concepts and Applications*, United States Agency for International Development, Washington, DC, <https://www.cdacollaborative.org/wp-content/uploads/2016/08/Systems-thinking-in-conflict-assessment.pdf>. [71]
- Rivas, O. (2018), *Nicaraguans take to streets in protest over social security changes*, Reuters, <https://www.reuters.com/article/us-nicaragua-protests/nicaraguans-take-to-streets-in-protest-over-social-security-changes-idUSKBN1HR02A>. [85]
- Ross, M. (2015), "What have we learned about the resource curse?", *Annual Review of Political Science*, Vol. 18, pp. 239-259, <https://doi.org/10.1146/annurev-polisci-052213-040359>. [31]
- Ross, M. (2011), "The Political Economy of the Resource Curse", *World Politics*, Vol. 51/2, pp. 297-322, <http://dx.doi.org/10.1017>. [134]
- Ruttinger, L. (2017), *Climate-Fragility Risks - The Global Perspective*, Adelphi, <https://www.adelphi.de/en/publication/climate-fragility-risks-global-perspective-0>. [124]
- Rüttinger, L. et al. (2015), *A New Climate For Peace: Taking Action on climate and Fragility Risks*, https://www.newclimateforpeace.org/sites/default/files/NewClimateForPeace_FullReport_small_0.pdf. [128]
- Schreiber, D. and S. Loudon (2020), *Fit for Fragility*, OECD Publishing, Paris. [73]
- Shaxson, N. (2007), "Oil, Corruption and the Resource Curse", *International Affairs*, Vol. 83/6, pp. 1123-1140. [135]

- Signé, L. (2020), "A new approach is needed to defeat COVID-19 and fix fragile states", *Brookings Future Development Blog*, <https://www.brookings.edu/blog/future-development/2020/04/21/a-new-approach-is-needed-to-defeat-covid-19-and-fix-fragile-states/>. [44]
- Smith, M., L. Hinthorne and A. McIntire (2019), *Collaborating, learning, and adapting (CLA) in crisis response and recovery*, United States Agency for International Development, Washington, DC, <https://usaidlearninglab.org/lab-notes/moving-needle-2019-collaborating-learning-and-adapting-cla-crisis-response-and-recovery>. [118]
- Swelam, A. (2020), *COVID-19 global crisis: Reinventing governance for a fragile and complex new world*, <https://www.thecairoreview.com/covid-19-global-crisis/reinventing-governance-for-a-fragile-and-complex-new-world/>. [75]
- Thompson, C. (2020), *Other financial flows in fragile contexts*, Organisation for Economic Co-operation and Development. [137]
- Thompson, C. (2020), "Other financial flows to fragile contexts in the 2020 OECD fragility framework", OECD Publishing, Paris. [27]
- Thompson, C. (forthcoming), *Achieving Sustainable Debt in Fragile Contexts*, Organisation for Economic Co-operation and Development. [136]
- Twagiramungu, N. et al. (2019), "Re-describing transnational conflict in Africa", *The Journal of Modern African Studies*, Vol. 57/3, pp. 377-391, <https://doi.org/10.1017/S0022278X19000107>. [100]
- UN (2020), *Sustainable Development Goals - SDG indicators (webpage)*, <https://unstats.un.org/sdgs/indicators/indicators-list/>. [53]
- UN (2016), *Report on the Comprehensive High-level Midterm Review of the Implementation of the Istanbul Programme of Action for the Least Developed Countries for the Decade 2011-2020*, United Nations General Assembly, New York, http://unohrlls.org/custom-content/uploads/2017/03/A_CONF.228_3-1.pdf. [25]
- UN DESA (2020), *Least Developed Countries (LDCs) (webpage)*, United Nations Department of Economic and Social Affairs (UN DESA), New York, <https://www.un.org/development/desa/dpad/least-developed-country-category.html>. [24]
- UN DESA (2020), *SDG Indicators (webpage)*, United Nations Department of Economic and Social Affairs (UNDESA), New York, <https://unstats.un.org/sdgs/indicators/indicators-list/>. [121]
- UN DESA (2019), *2019 Revision of World Population Prospects (database)*, United Nations Department of Economic and Social Affairs (UNDESA), New York, <https://population.un.org/wpp/>. [2]
- UN Human Rights Council (2016), "Report of the commission of inquiry on human rights in Eritrea", United Nations (UN) General Assembly, New York, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G16/093/42/PDF/G1609342.pdf?OpenElement>. [94]
- UN News (2019), *Climate change recognized as 'threat multiplier', UN Security Council debates its impact on peace*, <https://news.un.org/en/story/2019/01/1031322>. [130]

- UN/World Bank (2018), *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*, World Bank, Washington, DC. [35]
- UNCTAD (2019), *Commodities & Development Report 2019: Commodity Dependence, Climate Change and the Paris Agreement*, United Nations Conference on Trade and Development (UNCTAD), Geneva, https://unctad.org/en/PublicationsLibrary/ditccom2019d3_en.pdf. [36]
- UNCTAD (2017), *Commodity Dependence, Growth and Human Development*, United Nations Conference on Trade and Development (UNCTAD), Geneva, https://unctad.org/en/PublicationsLibrary/suc2017d5_en.pdf. [33]
- Underwood, A. (2018), *The sudden end of the Ethiopia-Eritrea war, explained*, <https://www.vox.com/2018/7/31/17595988/ethiopia-eritrea-peace-abiy-ahmed>. [92]
- UNDP (2020), *COVID-19 and Human Development: Assessing the Crisis, Envisioning the Recovery*, United Nations Development Programme (UNDP), New York, http://hdr.undp.org/sites/default/files/covid-19_and_human_development_0.pdf. [45]
- UNDP (2019), *Human Development Report 2019*, <http://hdr.undp.org/en/2019-report>. [145]
- UNEP (2018), *Why we need to protect biodiversity from harmful effects of war and armed conflict*, <https://www.unenvironment.org/news-and-stories/story/why-we-need-protect-biodiversity-harmful-effects-war-and-armed-conflict>. [123]
- UNODC (2019), *DATAUNODC - Victims of intentional homicide, 1990-2018 (database)*, United Nations Office on Drugs and Crime (UNODC), Vienna, <https://dataunodc.un.org/content/data/homicide/homicide-rate>. [89]
- USAID (2020), *THE JOURNEY TO SELF-RELIANCE*, United States Agency for International Development, <https://www.usaid.gov/selfreliance>. [144]
- USAID (2014), *Local Systems: A Framework for Supporting Sustainable Development*, United States Agency for International Development (USAID), Washington, DC, <https://www.usaid.gov/sites/default/files/documents/1870/LocalSystemsFramework.pdf>. [68]
- Vemuru, V. et al. (2020), *From Isolation to Integration: the Borderlands of the Horn of Africa*, World Bank Group, Washington, DC, <http://documents.worldbank.org/curated/en/167291585597407280/The-Borderlands-of-the-Horn-of-Africa>. [101]
- Wadhwa, D. and G. Mahler (2020), *The center of gravity of the COVID-19 pandemic is heading to the global south*, World Bank Group, <https://blogs.worldbank.org/opendata/center-gravity-covid-19-pandemic-heading-global-south>. [146]
- World Bank (2020), *Data: World Bank Country and Lending Groups (webpage)*, World Bank, Washington, DC, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>. [23]
- World Bank (2020), *Projected Poverty Impacts of COVID-19 (coronavirus)*, World Bank Group, Washington, DC, <http://pubdocs.worldbank.org/en/461601591649316722/Projected-poverty-impacts-of-COVID-19.pdf>. [38]
- World Bank (2020), *The Global Economic Outlook During the COVID-19 Pandemic: A Changed World*, World Bank, Washington, DC, <https://doi.org/10.1596/978-1-4648-1553-9>. [102]

- World Bank (2017), *World Development Report 2017: Governance and the Law*, World Bank, Washington, DC, <https://www.worldbank.org/en/publication/wdr2017>. [65]
- World Bank (2011), *World Development Report 2011: Conflict, Security, and Development*, World Bank, Washington, DC, <https://openknowledge.worldbank.org/handle/10986/4389>. [28]
- World Bank (2002), "The East Timor reconstruction program: Successes, problems and tradeoffs", *Conflict Prevention and Reconstruction Unit Working Papers*, No. 2, <http://documents1.worldbank.org/curated/en/449181468761984862/pdf/263610PAPER0Co1on0wp0no20East0Timor.pdf>. [97]
- World Bank (1999), "East Timor - Building a nation: A framework for reconstruction and development, joint assessment mission", <http://documents.worldbank.org/curated/en/617731493731873983/Joint-assessment-mission-agriculture-background-paper>. [98]
- World Bank Group (2020), *World Bank Group Strategy for Fragility, Conflict, and Violence 2020-2025*, World Bank Group, Washington, DC, <http://documents.worldbank.org/curated/en/844591582815510521/World-Bank-Group-Strategy-for-Fragility-Conflict-and-Violence-2020-2025>. [17]
- World Bank Group/UNHCR (2015), *Forced Displacement in the Great Lakes Region: A Development Approach*, <https://openknowledge.worldbank.org/handle/10986/21708>. [108]
- Wright, D. (ed.) (2008), *Thinking in Systems: A Primer*, Chelsea Green Publishing, White River Junction, VT. [63]
- Ziaja, S., J. Grävingholt and M. Kreibaum (2019), "Constellations of fragility: An empirical typology of states", *Studies in Comparative International Development*, Vol. 54, pp. 299-321, <https://doi.org/10.1007/s12116-019-09284-3>. [56]

Annex A. Methodology for the OECD fragility framework

The methodology for the OECD fragility framework comprises data collection, a first stage of principal component analysis (PCA), a clustering approach to group contexts according to their shared attributes, and a second stage of principal component analysis to arrive at the 57 fragile contexts.

Stage 1: Principal component analysis

The first stage of PCA calculates fragility scores for each dimension. It follows data collection on the 44 indicators, which involves accounting for the directionality of the indicator and classifying it as a risk or coping capacity. PCA is a dimensionality reduction technique that helps find patterns amid data. Each dimension of fragility contains 8 to 12 indicators, reflecting the complexity of fragility discussed in this paper. It is difficult to model these indicators statistically in a non-arbitrary way, especially when they are correlated to each other. PCA offers an approach to condense these indicators based on the unique, statistical information they provide for the analysis. It does so in a manner that is as non-arbitrary as possible by assigning weights based on the statistical information captured by each indicator.

The principal components that result from this approach are a (linear) combination of the original indicators within each dimension of fragility, meaning that each of the 175 contexts will have a value for each principal component. These principal components have the advantage of being uncorrelated from each other, which facilitates their modelling and interpretation. The number of principal components that result from the PCA is always one less than the number of indicators at the start of the analysis. The first principal component will account for the greatest possible variance, or statistical information, in the data; the second principal component will account for the second greatest variance and so on. For this reason, each context's value for the first principal component represents its fragility score in that dimension. The first two principal components, which capture most of the variance from the original indicators, are also the inputs to the clustering analysis and the second stage of PCA.

These points are not only important in a statistical sense. They are also relevant to the discussion in Chapter 2 on systems thinking. If each indicator is a system and fragility emerges from a complex interaction of systems, then it is difficult to model these interactions statistically without introducing arbitrary assessments. PCA is a method to make sense of the complexity in the data so that the data are more easily interpretable. This method thus offers policy makers and practitioners a middle ground between accepting the inherent complexity of fragility in each context and pursuing one-size-fits-all approaches. At the same time, it is important to not overstate the utility of quantitative tools to analyse systems. PCA and other techniques can help manage complexity, but their value is in complementing other approaches to thinking in systems (Pasanen and Barnett, 2019^[72]; Dillon, 2019^[116]), including and especially an in-depth investigation that offers nuance and context to the quantitative analysis.

Hierarchical clustering

Following the first stage of PCA, all 175 contexts are grouped into six groups, or clusters, based on their shared quantitative attributes within each dimension. These clusters are not predetermined. For example, contexts are not clustered based on their geographic, income or thematic characteristics. Rather, the clustering approach groups contexts together based on the values of their first two principal components, which are themselves based on the original indicators. The goal is the creation of six clusters, whereby each cluster is distinct from each other cluster and the contexts within a cluster resemble one another. Clustering thus offers another way to find patterns in the data. It is prominent in recent scholarship on fragility (Ferreira, 2018^[117]; Ziaja, Grävingsholt and Kreibaum, 2019^[56]; Corral et al., 2020^[20]), though the precise methodology may differ. This literature reflects attempts to devise typologies of contexts that reconcile the complexity of fragility with the need for simplicity and guided approaches to help policy makers address fragility and its drivers.

Hierarchical clustering does not rank the clusters. To do so, we consulted experts to assess the severity of fragility within and between clusters. These assessments were qualitative, relying on the experts' background and contextual knowledge. This approach uses the clusters as an indicative aid for the qualitative assessment of fragility. While such a strategy affects replication, it is important given the known limitations of the quantitative data. It also allows experts to assess fragility based on their knowledge of factors that affect fragility but that the quantitative analysis does not capture adequately, thereby adding nuance to the existing empirical foundation. This approach partly mirrors how fragility is assessed “on the ground”, through a mix of quantitative data, qualitative assessment based on contextual knowledge, and instinct complemented by guesswork – all of which are part of “dancing with the system” (Meadows, 2008^[63]).

These consultations resulted in the ranking of the six clusters into five categories, denoting severe, high, moderate, low, and minor fragility. These clusters each have defining characteristics that separate them from the other clusters and that define their specific profile of fragility. To identify them, we conduct a difference in means test comparing the indicators of each cluster to all other clusters.

Chapter 3 analyses these clusters and their characteristics. These clusters are systems as well, with emergent properties that shape their state of fragility. This analysis provides a starting point for generalisability. Understanding shared characteristics in each cluster can guide general principles or approaches to address specific drivers of fragility. It can provide an opening for actors to apply lessons from one context to another, while still acknowledging that these shared characteristics may manifest differently across contexts (Corral et al., 2020^[20]).

Stage 2: Principal component analysis

The results of the first PCA, specifically the first two principal components in each dimension, provide inputs into a second PCA to arrive at an aggregate fragility score for each of the 175 contexts. While the first PCA analysed fragility within dimensions, the second PCA provides insight into how fragility emerges from the interaction of risks and coping capacities across dimensions. The result, as before, is a set of principal components, the first of which is the aggregate fragility score. Using the same cut-off threshold from the previous two *States of Fragility* reports, we reach a classification of 57 fragile contexts, 13 of which are extremely fragile and 44 are other fragile. This process produces an overview of the state of fragility in the world. It provides insight into how fragility has manifested within and across dimensions, all while highlighting a set of contexts that merit attention from DAC members and the international community due to their individual levels of fragility.

