



IEG
INDEPENDENT
EVALUATION GROUP

WORLD BANK GROUP
World Bank • IFC • MIGA

Crisis Response and Resilience to Systemic Shocks

Lessons from IEG Evaluations

WHAT WORKS



© 2017 International Bank for
Reconstruction and Development /
The World Bank
1818 H Street NW
Washington, DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

RIGHTS AND PERMISSIONS

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

Contents

Abbreviations	3
Executive Summary	4
1 Introduction and Purpose	6
2 Helping Countries Build Resilience and Recover from Systemic Shocks	8
Fiscal Policy Responses to Systemic Shocks	10
Financial Policy Responses to Systemic Shocks	14
Social Safety Net Policy Responses	18
Environmental Policy Responses to Natural Disasters	22
Multipronged Policy Responses to Pandemics	26
3 What Lessons Emerge from the Evaluations?	29
Lessons from World Bank Group Intervention Modalities	29
Lessons from International Responses to Crises	31
Lessons from the World Bank Group's Approach, Internal Coordination, and Work Quality	32
Areas Where More Knowledge Is Needed	34
Bibliography	35
Figure	
Figure 2.1. Dimensions of Resilience Addressed by the World Bank Group Portfolio and Corresponding IEG Evaluations	9
Boxes	
Box 2.1. Country Context Matters—Expenditure Protection Programs in Health	13
Box 2.2. Weather Index Insurance in India and Mongolia	17



Abbreviations

CAT DDO	Catastrophic Deferred Drawdown Option	OECS	Organisation of Eastern Caribbean States
CCPE	clustered country program evaluation	PSNP	Productive Safety Net Program
DDO	deferred drawdown option	WHO	World Health Organization
DPO	development policy operation		
FAO	Food and Agriculture Organization		
FIL	financial intermediary loan		
GFDRR	Global Facility for Disaster Risk Reduction		
GFRP	Global Food Crisis Response Program		
GPAI	Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response		
ICRR	Implementation Completion and Results Report Review		
IDA	International Development Association		
IEG	Independent Evaluation Group		
IFC	International Finance Corporation		

Executive Summary

The development community has internalized the reality that efforts to reduce poverty and build resilience to shocks are complementary. Systemic shocks affect the poor and non-poor, push some non-poor into poverty, keep the poor in poverty longer, affect the development trajectory of countries, affect service provision, and possibly cost human lives. Several of the Sustainable Development Goals integrate the concept of resilience. Furthermore, in the World Bank's new strategy adopted in October 2013—achieving the twin goals of eliminating extreme poverty and boosting shared prosperity in a sustainable manner—resilience is at the heart of the three-pronged view of sustainability: fiscal, social, and environmental sustainability.

During the past decade, the Independent Evaluation Group (IEG) evaluated the World Bank Group's response to systemic shocks and its efforts to help build resilience in response to shocks such as the food crisis of 2007–08, the global financial crisis of 2008–09, natural disasters, climate change, and pandemics. These evaluations examined the response to each of these different shocks separately. This study examines the evaluations and learning products to draw general lessons from the experience that can help strengthen future support to countries' resilience-building efforts.

The World Bank Group generally responded nimbly to shocks and refashioned some of its instruments to handle different kinds of crises. It appropriately focused attention on the impact of shocks on the poor and vulnerable, including through designing flexible social safety nets with better targeting. Much of this success reflected a willingness to work closely with international and national partners to address priority needs if a shock occurs. But perhaps the most significant finding is that although the World Bank Group continues to support quick and effective global response to crises, it has taken a lead in helping countries develop resilience to potential shocks proactively. The World Bank Group built the need for resilience into its analytic work and lending operations in most sectors, and it used its policy dialogue with client countries to emphasize the importance of creating institutions and policies to enable them—and particularly the poor and vulnerable—to withstand shocks and recover rapidly after them. The World Bank Group was most effective in supporting country response to shocks when it conducted a robust program of analytic work relevant to resilience, built on this work in the programs it supported, and did so for a sustained period. The World Bank Group has had a particularly important role in developing innovative instruments for insurance against natural disasters and climate shocks.



However, more needs to be done to strengthen countries' monitoring mechanisms and capacity in preparing for shocks and dealing with their aftermath. At the World Bank, many financial intermediary loans (FILs) disbursed slowly during the global financial crisis and were ineffective in providing working capital for the private sector. The implementation of the range of instruments developed by the International Finance Corporation (IFC) for the same purpose was slower than expected. The World Bank Group should consider strengthening its internal coordination of crisis response to promote better knowledge sharing across its global practices. Governments should be more purposeful in leveraging crises to undertake structural reforms. Reforms undertaken as part of the crisis response helped to build resilience

in some cases, but in others, these reforms were not sustained after the crisis passed, and in those cases, the underlying political commitment to the reforms was often inadequate.

Going forward, it would be useful to keep monitoring the international community's resilience interventions and individual country responses to see the extent to which they have continued the shift toward upstream work and a focus on vulnerability reduction. Specifically, it would be useful to assess the extent to which the international community has contributed to building up social protection mechanisms that can be scaled up and targeted to the poor and vulnerable in response to systemic shocks.

1 Introduction and Purpose

The topic of resilience has gained prominence on the development agenda. Many of the Sustainable Development Goals relate to resilience.¹ In the World Bank’s new strategy adopted in October 2013—achieving the twin goals of eliminating extreme poverty and boosting shared prosperity in a sustainable manner—resilience is at the heart of the three-pronged view of sustainability: fiscal, social, and environmental sustainability.

Efforts to reduce poverty and build resilience to disaster risks are complementary. Estimates for 89 countries find that if all natural disasters could be prevented in 2017, the number of people in extreme poverty—those living on less than \$1.90 a day—would fall by 26 million. The impact on poverty is large because poor people are exposed to hazards more often, lose more as a share of their wealth when affected, and receive less support from family and friends, financial systems, and governments. Disasters can push people into poverty, so disaster risk management can be considered a poverty reduction policy, and because poverty reduction policies make people less vulnerable, they can be considered part of the disaster risk management toolbox. Action on risk reduction has a large potential, but not all disasters can be avoided. Expanding financial inclusion, disaster risk and health insurance, social protection and adaptive safety nets, contingent

finance and reserve funds, and universal access to early warning systems would also reduce well-being losses from natural disasters. If all countries implemented these policies, the gain in well-being would be equivalent to a \$100 billion increase in annual global consumption (Hallegatte et al. 2017).

This synthesis of existing evaluations seeks to draw lessons from key IEG evaluations of World Bank Group support for strengthening client country response and resilience to systemic shocks. The synthesis is concerned exclusively with systemic shocks—that is, shocks that affect highly significant numbers of economic agents in at least one country, possibly several—and the impact of which unfolds during a relatively short time. The paper considers four families of systemic shocks: the sharp increases in food prices in 2007–08, the 2008–09 global financial crisis, natural disasters, and pandemics. It brings together findings from IEG evaluations or learning products dealing with the World Bank Group’s responses to the food crisis and the global financial crisis; support for social safety nets, environmental sustainability, and climate change (to the extent that it results in more frequent and severe environmental shocks);² the Global Facility for Disaster Risk Reduction (GFDRR); avian influenza; and engagement in small states and resource-rich countries.³ The bibliography lists all evaluations and learning products covered.

For this synthesis paper's purposes, resilience is defined as a country's capacity to prevent, mitigate, and/or respond effectively to shocks. When a systemic shock occurs (depending on the type of shock), it can involve loss of life, disability, damage to infrastructure and housing, loss of livelihoods, reductions in government support for essential services and social transfers, stress to the financial system, and so on. Resilience, therefore, is the capacity to take actions that can prevent or mitigate these impacts or promote a rapid recovery from them. This capacity can map broadly into the following three dimensions:

- Economic resilience: the capacity of the fiscal and financial systems to absorb shocks.
- Social resilience: the extent to which individuals are supported to recover from systemic shocks.
- Resilience to environmental shocks: enabling physical structures and the agricultural economy to withstand natural disasters and recover from them.

Resilience in this context is broadly defined to cover both the short-term response to shocks and the medium- and long-term building of resilience, but it is useful to remember the different nature of these two components. Shocks have an impact on a country and its citizens, regardless of the level of preparedness. Even countries with high resilience experience problems when shocks are extremely severe (for example, Hurricane Katrina in the United States and the Tohoku earthquake and tsunami in Japan). Therefore, along with building resilience, the World Bank Group also supports countries in responding to shocks when they occur. The crisis response brings together both the short-term objectives of supporting a rapid recovery and the medium- and long-term objectives of building resilience. Response mechanisms also cut across different kinds of crises. For example, fiscal policies

and social transfers are likely to be an important part of the response to almost all kinds of shocks.

The World Bank Group generally uses its support in response to shocks to help build resilience in the medium and long term. Many, if not most World Bank Group operations after crises address both the immediate needs for budgetary resources or rehabilitation of housing and infrastructure and the policies that need to be put in place to achieve resilience, such as better public financial management and resilience standards for construction. Recent IEG evaluations tend to look at building resilience and responding to the crisis as two sides of the same coin, and they tend to assess how well World Bank Group operations addressed both these aspects. Drawing on those evaluations, this paper took a similar approach.

¹ For more information, visit the United Nations Sustainable Development Goals website at <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

² Climate change is not a short-duration shock, but this study includes selective aspects of the climate change agenda because of evidence that climate change is increasing the severity and frequency of natural disasters and weather-related shocks.

³ The study covers topics that IEG evaluated, and therefore gaps in coverage exist for topics not yet evaluated (for example, the city strength approach to building urban resilience and the use of remote disaster assessment).

2 Helping Countries Build Resilience and Recover from Systemic Shocks



The succession of systemic shocks affecting developing countries in the past decade has required the international community to respond more frequently. The food crisis and the global financial crisis led the World Bank to double its lending for crisis response during 2008–10 compared with the previous three years. IFC responded to the financial crisis by developing a range of new instruments designed to build private sector resilience to the shocks. The World Bank’s engagement in responding to pandemics began with its commitment at an early stage of the HIV/AIDS global crisis, and it used that experience in later pandemics such as severe acute respiratory syndrome, avian influenza and, most recently, the Ebola virus. IEG’s 2006 evaluation *Hazards of Nature, Risks to Development: An Evaluation of World Bank Assistance for Natural Disasters and World Development Report 2010: Development and Climate Change* enhanced the World Bank’s increasing focus on the impact of natural disasters and climate change. The evaluative evidence suggests that the World Bank Group has helped countries build resilience and recover from

FIGURE 2.1. Dimensions of Resilience Addressed by the World Bank Group Portfolio and Corresponding IEG Evaluations



a. See recent IEG evaluations on the global food and economic crises and engagement with resource-rich countries (World Bank 2010a, 2012b, 2013, 2015b).

b. See recent IEG evaluations on social safety nets, global food and economic crises, Global Facility for Disaster Reduction and Recovery, avian influenza, health financing, and small states (World Bank 2011c, 2012b,d, 2014a,c, 2016a,b,c).

c. See recent IEG evaluations on climate adaptation, engagement in resource-rich developing countries, and small states (World Bank 2010a, 2012a,b, 2016a,b,c).

systemic shocks using a multipronged approach. It supported a wide range of investments and policy responses specifically for building resilience in the face of each different type of shock. The

various dimensions of resilience and associated policy responses are often intertwined (Figure 2.1). The World Bank Group has often adopted an integrated policy approach to building resilience that brings out the synergies among these different dimensions. The evaluative evidence suggests that the World Bank Group has helped countries build resilience and recover from systemic shocks using a multipronged approach. It supported a wide range of investments and policy responses specifically for building resilience in the face of each different type of shock. For example, in response to the food crisis, the World Bank Group supported fiscal, social safety net, and agricultural sector policy responses. Prices of food staples and other agricultural products more than doubled between early 2007 and mid-2008. A concurrent rise in petroleum prices compounded the impacts. The increases came after a long period of low and relatively stable global food prices, and their magnitude caught many governments off guard. In 2008, the World Bank established a \$2 billion Global Food Crisis Response Program (GFRP) aiming to reduce the negative impact of high and volatile food prices on the lives of the poor and support governments in the design of sustainable policies that mitigate the adverse impacts of high and more volatile food prices on poverty. It also aimed to support broad-based growth in productivity and market participation in agriculture to ensure an adequate and sustainable food supply. The GFRP provided a menu of fast-track interventions that could be processed as emergency projects.

The World Bank Group has supported fiscal, financial sector, and social safety net policy responses to the global economic crisis and multisector actions to address the link between natural hazards and development. IEG evaluations

have assessed the response to the contractionary impact of the 2008–09 global recession and its contagion on developing countries. The World Bank Group helped improve resilience to shocks by providing financial and technical support through these various types of policy responses. It considers efforts to reduce people's vulnerability to environmental and natural hazards a priority. One of the most important steps toward this objective was the creation of the GFDRR as a World Bank–managed multisectoral and global partnership that helps developing countries better understand and reduce their vulnerability to natural hazards and climate change.

Building resilience requires anticipatory policies and investments as well as support provided in the aftermath of shocks. The World Bank Group's approach to supporting resilience has evolved during the past two decades, moving from a reactive response to crises and supporting post-crisis measures to mitigate the impact of future shocks to anticipatory policies and investments that build resilience into a wide range of World Bank–supported programs in almost every sector. IEG has conducted evaluations covering both a single dimension of resilience, such as climate change adaptation or social safety nets, as well as multiple dimensions of resilience that overlap as seen in its work on the first and second global food crises and clustered country program evaluations (CCPEs). The evaluations cover the World Bank Group's response to the food price and global economic crises, environmental shocks, and pandemics.

IEG conducted some of these evaluations shortly after the particular crisis. Although they capture the relevance and effectiveness of the immediate crisis response effort, they could not evaluate to what degree the measures build resilience in the medium

and long term. The World Bank Group supports the response to systemic shocks in the following areas:

- Fiscal response through the provision of funds to help cover the budgetary impact of the crisis to safeguard or support the public expenditures that are most relevant to the welfare of the poor and vulnerable.
- Financial response through helping banks to strengthen their balance sheets and to make resources available for working capital to small and medium enterprises.
- Social safety nets, which can protect the poor and vulnerable in the event of a systemic shock.
- Response to environmental shocks and pandemics through participating in international efforts to rehabilitate damaged infrastructure and housing and, in the case of pandemics, to treat victims, contain the spread, and support the survivors.

Fiscal Policy Responses to Systemic Shocks

FISCAL POLICY RESPONSES TO THE 2007–08 FOOD CRISIS

The 2007–08 food crisis stretched the fiscal capacity of many governments in low-income countries, and the international community's response appropriately included fiscal support to governments to enhance their ability to mitigate the impact of the crisis on their poor population. However, the effectiveness of such fiscal support depends on institutional capacity in the field and the availability of scalable social programs. An IEG evaluation found that World Bank–supported fiscal policy responses to the food price crisis were only modestly effective and likely had limited impact. Where targeted safety nets could not be expanded, food subsidies, lower tariffs on imported food, and the use of strategic reserves to lower prices for all consumers were considered

acceptable. Similarly, input subsidies were recommended where credit and input markets were underdeveloped. However, because tariffs and taxes on food staples were low in many cases, rate reductions did little to help vulnerable groups while subsidies aggravated fiscal positions and put other government programs at risk.

In many countries, fiscal policies to support agricultural supply responses did not produce downward pressure on domestic food prices. The World Bank supported targeting of input subsidies to smaller and poorer farmers for redistribution reasons in some cases while in other cases it supported programs that also benefitted large and better-off farmers to increase the supply response of the broader agriculture sector. The unavailability of necessary inputs precluded the full supply response from materializing in several instances where the World Bank provided support.¹ Furthermore, the coverage of input subsidy operations was often too small to generate significant impact at the national level. Perhaps most significant, the key welfare



outcomes related to the food crisis—poverty and malnutrition—were not sufficiently tracked to allow a meaningful assessment of the welfare impact of the World Bank–supported short-term response.

FISCAL POLICY RESPONSES TO THE GLOBAL ECONOMIC CRISIS

The World Bank sought to strengthen three distinct fiscal dimensions in response to the global financial crisis:

- Facilitating countries' access to financing to mitigate the detrimental effect of fiscal contractions, help improve fiscal positions, and facilitate countercyclical spending in some cases.
- Protecting public expenditure in key social sectors to mitigate the impact of the crisis on the poor and vulnerable.
- Building economic resilience through helping countries implement structural reforms to strengthen long-term fiscal sustainability, creating fiscal space for countercyclical responses to strengthen resilience to macroeconomic shocks in the future.

Facilitating Access to Financing and Improving Fiscal Positions

As many developing countries sought external financing to help them respond to the impacts of the global financial crisis in the face of limited or dwindling fiscal space, the ability of the international community to respond quickly and at scale was key. IEG's evaluation of World Bank support for the global crisis response notes that a key line of action in mitigating the fiscal impact of the crisis consisted of a large increase in World Bank lending to cover increased financing gaps. The World Bank initially responded to the global financial crisis by increasing lending, especially for middle-income borrowers—in particular, the World Bank designed 67 crisis response development policy operations

(DPOs) focused on fiscal management. As the scale of the demand became apparent, the World Bank took steps to get approval for an International Development Association (IDA) fast-track facility.

The specific actions that countries took to access more financing and to improve their fiscal positions varied across countries with equally varied outcomes. Fiscal impact mitigation programs, which involved strengthening both short- and long-term fiscal positions and bolstering governments' capacity to raise funds, provided mixed results. Along with helping meet financing gaps, DPOs supported measures to strengthen fiscal sustainability, notably through improvements in the cost-effectiveness of public expenditures.² Such measures included, for example, improvements in the targeting of social entitlements or cuts on low-priority administrative expenditures. However, other potentially demanding or politically sensitive measures were not often included in these operations—for example, measures to better control the wage bill, reduce subsidies, or curtail low-priority public investments, which occurred in one-third or less of crisis response DPOs. Equally low was the frequency of tax policy and tax administration reforms to improve revenue collections. Prior actions or triggers that required specific targets for the fiscal deficit, fiscal revenues and expenditures, or the public debt ratio were also less frequent.³ Some crisis response DPOs with fiscal management content were intended to bolster governments' capacity to raise financing on capital markets despite the turmoil—of the 67 DPOs with fiscal content, 9 DPOs in seven countries were designed as precautionary instruments with deferred drawdown options (DDOs).

Overall, the crisis impact in most countries was not as severe as expected, partly because of international efforts, including the World Bank's increased financing and policy advice. Furthermore, in some cases—notably in Indonesia—precautionary World Bank funding under DPOs with DDOs served their purpose of helping countries meet their continued financing needs at reasonable cost. The \$2 billion Indonesia operation approved in March 2009 and complemented by an additional \$3 billion from other partners specified formal triggers for drawdown if financial market stress exceeded specific thresholds. The operation helped maintain the country's access to financing on international markets and supported financial sector reforms and measures to uphold priority development and social protection spending, thus contributing to strengthening Indonesia's resilience to crises in a more lasting way.

Fiscal measures did not go far enough to achieve lasting impact mitigation in some countries, however. World Bank DPOs with fiscal content supported bold expenditure control measures to improve fiscal stances in some cases, but the measures were often insufficient. In many cases, measures focused on improving budget processes in the medium term rather than actionable expenditure rationalization or revenue mobilization measures. Furthermore, the World Bank DPOs often paid insufficient attention to the available space for fiscal stimulus, the reversibility of stimulus measures, and forward-looking measures to attain fiscal sustainability. The impact of the crisis on fiscal positions was widely underestimated, as indicated by deficits or debt (or both) that were larger than projected in the countries where IEG conducted in-depth reviews of DPOs with fiscal content. Some instances of precautionary financing (such as World Bank development policy financing

with a DDO) achieved their intended objective of helping countries meet financing needs at reasonable costs, but in other cases, the contingent feature had no impact on market access typically because funds were drawn down immediately.

Protecting Public Expenditures in Key Social Sectors

The nature of public expenditures and whether such expenditure should be increased or maintained depend on country contexts. IEG's findings conclude that World Bank–supported responses differed appropriately across countries. The World Bank supported protection or scaling up of social safety nets, key public investments, and pro-poor spending.⁴ In Hungary and Ukraine, initial spending levels on safety nets were high, and the fiscal impact of the crisis was severe. Therefore, the focus in these countries was on measures to improve targeting and contain expenditures, including pension reform. In Colombia, Indonesia, Mexico, and Vietnam, initial spending levels were lower, so the focus was on assessing the poverty impact of the crisis and measures to alleviate the social costs. Where there was fiscal space, more than half of the DPOs included provisions to scale up public works. Similarly, many crisis response DPOs included fiscal measures that helped protect or scale up pro-poor expenditures, as in El Salvador, Georgia, Ghana, Jordan, Poland, and Romania. IEG's global crisis response evaluation found that measures to protect spending on education and health were less frequent in DPOs than increases in public investment. Even in low-stress countries, only about one-third of World Bank DPOs with fiscal management content safeguarded education and health programs, and the proportion fell to 20–25 percent in countries with moderate and high fiscal stress.

BOX 2.1. Country Context Matters—Expenditure Protection Programs in Health

IEG's evaluation of World Bank support for health financing found that depending on the country context, the World Bank advised governments to increase their budgets for health or to protect health spending during the crisis. This advice was often linked to proposals to create fiscal space by introducing excise taxes on products with potentially harmful impacts on health. In countries with social health insurance, the World Bank supported enhancements in tax administration and payroll tax collection. It also supported subsidies to finance contributions to risk pools for low-income groups and helped governments introduce explicit targeting of subsidies.

In Latvia, for example, World Bank policy lending supported government efforts to subsidize health payments for low-income households and increase the number of nurses in health facilities to accommodate increased patient demand. Considering fiscal austerity in Argentina, World Bank lending and policy advice helped ensure that basic and cost-effective health programs were protected and received continued financing, including reproductive health care services for low-income groups. Analytical work, such as public expenditure reviews and fiscal analysis, informed policy and investment lending in these countries.

Strengthening Resilience to Future Macroeconomic Shocks

Building resilience for the future was somewhat pushed aside as a second order objective in the face of intense pressures to deal with the immediate impacts of the crisis. IEG's global crisis response evaluation found that crisis-related World Bank support for long-term resilience tended to focus on public financial management reforms instead of concrete measures to strengthen medium-term fiscal sustainability. World Bank DPOs frequently focused on reforms in public financial management and revenue administration.⁵ Although such reforms can be expected to help strengthen fiscal sustainability in time, they are typically long gestating. By contrast, the World Bank's DPOs appear to have paid limited attention to the expenditure allocations and revenue mobilization measures needed to create or preserve future fiscal space for countercyclical stimulus measures if they are necessary.

The effectiveness of World Bank-supported sovereign wealth funds and fiscal rules in resource-rich countries varied markedly after the crisis. Sovereign wealth funds and fiscal rules are intended as a self-insurance mechanism against terms-of-trade shocks in resource-rich countries. Contrasting experiences in Kazakhstan and Mongolia discussed in the resource-rich countries CCPE illustrate both the potential of such approaches and the political economy difficulties they can encounter. In Kazakhstan, government reform efforts achieved visible progress in setting up and then strengthening conservative fiscal rules governing the use of oil earnings.⁶ By contrast, Mongolia's efforts to use the crisis response to implement fiscal rules and set up a sovereign wealth fund for its copper earnings were not sustained.⁷

Financial Policy Responses to Systemic Shocks

FINANCIAL POLICY RESPONSE TO THE GLOBAL CRISIS

World Bank Group-supported financial sector policy responses sought to bolster confidence, maintain credit access after the global crisis, and build long-term resilience. During the global economic crisis, a primary objective of World Bank Group financial support and technical assistance—complemented in most affected countries by an International Monetary Fund program—was to help restore confidence in the banking system's soundness. This required ensuring that banks had the capital needed to withstand the increase in nonperforming loans because of the crisis, but also accelerating the process to strengthen bank supervision and restructuring. A second objective was to ensure that the private sector and particularly small and medium enterprises continued to have access to credit to meet their financing needs. A third objective was to help build consensus and implement the key reforms required for the long-term resilience of the banking system and capital markets.

World Bank Response

The World Bank sharply increased the number of its loans with financial sector content between FY09 and FY10 in response to financial sector stress. The World Bank made 106 loans with some financial sector content to 57 countries, with total commitments exceeding \$28 billion (about 27 percent of its total lending). Although a few loans focused almost exclusively on financial sector issues, most operations covered several sectors, and a significant part of the operations' content was not directly relevant to the crisis.

In most countries with severe financial crises, the World Bank provided impactful support during the crisis and recovery phases. For example, Ukraine's first dedicated financial sector crisis operation focused on immediate crisis needs: initial steps in building a bank rehabilitation framework, setting conditions for drawing on state funds for bank recapitalization, and providing the central bank with enhanced powers to intervene in troubled banks. It also included measures to ensure transparency in public funds use, enhancement of the bank resolution framework, and strengthening the payout functions of the Deposit Guarantee Fund. Similarly, the World Bank operation in Latvia focused primarily on issues relevant to the crisis: improved stress tests for banks leading to a plan to determine additional capital requirements, legal issues to enable more effective bank resolution, new flexibility in the insolvency law, corporate debt restructuring, and mortgage foreclosure. For longer-term financial resilience, the plan included passage of better guidelines for supervision and a review of financial consumer protection laws.

World Bank efforts to bolster liquidity in countries that did not face severe distress among financial institutions were of limited effectiveness. In a larger number of countries, loss of liquidity did not threaten fundamentally sound financial institutions, but the crisis strained banks' ability to extend credit and led to an increase in the share of nonperforming loans. In most countries, financial stress was manifest through increasing spreads on borrowing and precipitous stock market declines. The World Bank addressed this mainly through a substantial increase in the number of FILs—lines of credit through participating financial intermediaries to private borrowers.⁸ The stated objectives of 10 of the 16 FILs were to increase bank credit to the private sector groups most affected by the

crisis: small and medium enterprises, exporters needing trade finance, rural businesses, and cooperatives. Although some FILs approved during the crisis disbursed rapidly, several had little or no disbursement within the first 12 months.⁹

Much of the World Bank's financial sector support during the global crisis went beyond narrow crisis response and focused on building medium-term resilience. The actions supported by the multisector DPOs were often general, incremental, and medium term in orientation rather than crisis-related. Crisis financial sector prior actions were not easily distinguished from those in noncrisis situations. Occasionally, significant financial sector issues were neglected (such as the need for improved banking supervision), reflecting the speed with which operations were prepared. Although general and incremental, some reforms associated with loans to less-distressed countries, such as Indonesia and Turkey, were a useful part of the medium-term agenda and had reasonable prospects for sustainability. During the crisis period in Turkey, DPOs supported strengthening banking supervision. For capital markets, they supported fewer related-party transactions, greater disclosure and investor protection, and the enactment of a new insurance law. Indonesia provides a good example of a crisis-response operation that supported reforms with medium-term benefits for the resilience of the financial system. The \$2 billion Indonesia Public Expenditure Support Facility Development Policy Loan-DDO (prepared in collaboration with the Asian Development Bank, Australia, and Japan) supported the financial safety net regulation of 2009, which clarified the roles of Bank Indonesia, the ministry of finance, and the Deposit Insurance Corporation in ensuring financial stability in a crisis and if financial institutions fail. It contributed to ensuring timely resolution of

failed banks while considerably increasing the coverage of deposit insurance. Another important advance was the enactment of legislation in 2011 to revamp the supervisory framework. This led to the creation of an independent supervisor for all financial institutions and capital markets. This reform made it possible for the independent supervisory authority to implement a model of integrated and conglomerate supervision and risk-based supervision in banking.

IFC Response

Like the World Bank, IFC sought to address areas of vulnerability resulting from the global crisis. Although IFC did not ramp up the overall volume of its investments or increase the risks, it increased its commitments to the financial sector, which accounted for 63 percent of commitments in 2009–11. IFC deployed several instruments—loans, quasi-equity, quasi-loans, equity, guarantees, and client risk management. Advisory services in risk management and the resolution of nonperforming loans complemented its financial interventions.

Efforts to increase the availability of trade and infrastructure finance faced implementation delays, which lessened the full impact of these initiatives. As private corporations found it increasingly difficult to obtain trade financing from both international financial markets and their own domestic financial institutions, IFC doubled the ceiling of the Global Trade Finance Program, a platform established in 2005, to \$3 billion in December 2008. Another platform used was the Global Trade Liquidity Program, which mobilizes funding from IFC and its partners to fund trade finance in individual banks. Because the facility's implementation was slower than expected, the target disbursements of \$1.5 billion to \$2.5 billion were not met in FY09. However, the program met its targets after

overcoming the initial obstacles. IFC also set up the Infrastructure Crisis Facility to bridge the gap in financing for private or public-private partnership infrastructure projects in emerging markets. However, by the time the facility was operational, there was a marked decline in the severity of the crisis and less urgency to find alternative financing.

IFC sought to recapitalize financial institutions and helped in resolving troubled assets, with mixed results. In February 2009, IFC established the Bank Recapitalization Fund, a private equity and subordinated debt fund to support banks in emerging-market countries. Although the initiative has considerable strategic relevance, it has mixed results to date. Four of six recapitalization projects were satisfactory in support for a systemic bank. However, in most instances, the facilities were too small to have a systemic influence. The Debt and Asset Recovery Program, also established in 2009, aimed to reduce the level of distressed assets in banking systems by investing in specialized companies that manage and restructure pools of distressed assets. However, the launch and implementation were delayed, and the program has been unable to meet its financing target of partnership investment three to five times the IFC investment.

IFC successfully provided assistance to microfinance institutions facing liquidity issues. During the global financial crisis, the involvement of institutional investors and lenders in microfinance declined significantly, thus creating difficulties for microfinance institutions to refinance their debt. IFC designed the Microfinance Enhancement Fund to instill confidence in the availability of rollover financing and thus offset a potential reduction in access to financial services. During the crisis, the fund helped restore stability in microfinance lending

and therefore helped existing clients manage liability and liquidity. After the crisis, its portfolio expanded and matured to close to capacity. IFC is now one of the largest investors in microfinance, with about \$1 billion in commitments for its own account with 160 microfinance institutions in 60 countries.

FINANCIAL POLICY RESPONSE TO NATURAL DISASTERS

The World Bank Group's 10-year history of supporting pilot programs that provide weather index insurance in developing countries is a critical component to build resilience. Take-up of weather index-based insurance products has been surprisingly low where it was offered

and did not meet expectations. Weather index insurance is a relatively new type of coverage that ties to an objective parameter such as measurement of rainfall or temperature. Most pilot projects offered products directly to low-income households. However, these projects struggled with a common set of challenges:

- High relative costs of operation, partly because the average value per household of the insured assets is very low.
- Basis risk, because the farmer's actual risk is not well correlated with the trigger except for payout.
- A lack of experience with, and trust in, the insurance product that may lead farmers to place little value on insurance products.

BOX 2.2. Weather Index Insurance in India and Mongolia

IEG evaluations have documented two World Bank-supported index insurance projects operating at large scale in India and Mongolia that contributed to coverage of some risk for farmers and herders.

The Weather Based Crop Insurance Scheme in India, which relies heavily on public subsidies, is by far the largest in the world. The program originated from a 2003 pilot in Andhra Pradesh that received World Bank technical assistance. Farmer participation is largely compulsory and is tied to credit access. More than 9 million farmers were enrolled as of 2010–11, but basis risk is still significant, and farmers who suffer a total crop loss will still have a 1 in 3 chance of receiving no payment from the program.

In Mongolia, the World Bank designed an innovative livestock insurance to help reduce herders' vulnerability to harsh winters, reflecting the realization that the loss of livestock during extremely cold winters was an important cause of poverty in Mongolia. After a request from the Bank of Mongolia, the World Bank invited a group of experts to discuss a possible insurance program. At that time, index insurance was well established for crops, but not for livestock. A workable design evolved from these discussions and was piloted as a component in a World Bank project. After a successful pilot program, the approach was scaled up to the country as a whole starting in 2009. The World Bank had a major role in obtaining political buy-in for the program. Currently, 15 percent of the herder population buys private insurance against loss of livestock in an extreme cold spell. The private insurance industry handles the program entirely, and the World Bank project essentially finances a reinsurance program.

Index insurance at the governmental level can be an effective means of financing social protection programs. Local governments could buy weather insurance and use payouts to finance crisis relief. The IEG climate adaptation report found that the World Bank's support for a weather derivative instrument in Malawi is an interesting example. The derivative effectively functions as an insurance contract: a premium is paid up front, and then the government of Malawi receives a payout if predicted maize yields fall below a threshold level because of drought. The World Bank acts as an intermediary between Malawi and reinsurance companies and investment banks. The derivative ties into a social protection mechanism—in case of poor domestic harvests, the government uses payouts to buy grain internationally, which it can then distribute to drought-affected areas.

In the Caribbean, and later in the Pacific Islands, the World Bank was the driving force in establishing best practice pooled insurance programs that provide liquidity payments after natural disasters. The World Bank was a key architect of two catastrophic insurance programs in an effort to strengthen fiscal resilience to natural disaster-related shocks. Caribbean and Pacific island countries are highly vulnerable to natural disasters, especially hurricanes and flooding. Using a blend of analytical and advisory work, financing, and convening power, the World Bank had a central role in establishing the Caribbean Catastrophic Risk Insurance Facility. The facility's risk-pooling feature, the World Bank's work to support risk modeling for the various countries, and the design of the financial setup helped overcome the market's failure to provide cost-effective private insurance. The facility now has 16 member countries that pay risk-based insurance premiums to buy desired levels of insurance coverage. The facility is designed

to provide rapid payouts after the event to help provide the liquidity needed to finance disaster response and early recovery phases—including fuel purchases, equipment hire, and overtime wages.¹⁰ The facility is now self-sustaining and has made 12 payouts to eight member countries (\$35 million) as of May 2015—all less than three weeks after the triggering event. After the facility's success, the World Bank had a key role in developing the ongoing Pacific Catastrophe Risk Assessment and Financing Initiative, a catastrophe insurance pilot covering the Cook Islands, the Marshall Islands, Samoa, Tonga, and Vanuatu.

Social Safety Net Policy Responses

Since the global food crisis, developing countries and their international partners—especially the World Bank—have learned how to make social safety nets more responsive to systemic shocks. Because of this learning, as well as increased demand from client countries, the World Bank has substantially increased its support. Lending for safety nets expanded about fourfold to about \$2 billion a year in FY09–16 compared with FY01–08. The objectives were to help countries design fiscally sustainable social safety nets targeting the poor and vulnerable, ensure that social transfers to the poor are funded in times of crisis through existing or new programs (such as conditional cash transfers), and to put in place the knowledge, data, and administrative capacity needed to scale up and target social safety nets effectively in the context of future economic, environmental, or health-related crises.

There is also consensus within the humanitarian-development community on the need to move away from discretionary assistance toward forms of social protection that are more predictable

and can be scaled up in times of crises. The expanded portfolio of World Bank assistance for social protection policies during drought in the Horn of Africa is a positive development in this regard. The Productive Safety Net Program, implemented since 2006 in Ethiopia's food-insecure regions, discussed in the next section, illustrates how this type of program can help households bounce back after a food shock.

SOCIAL SAFETY NET POLICY RESPONSES TO THE FOOD CRISIS

Limited knowledge constrained World Bank-supported social safety net responses to the global food crisis in several low-income countries. The World Bank's previous engagement or analytical work in social protection was limited in many African countries that benefited from the GFRP operations. This constrained the World Bank's range of social safety net interventions that it could recommend and support. Most social safety net provisions supported by the GFRP consisted of in-kind transfers, notably school feeding programs and food-for-work programs through community-driven development and social investment funds in World Bank-financed projects. There was limited use of cash transfers and direct nutritional support to young children and pregnant and breastfeeding women—the most vulnerable to malnutrition.

As part of the response, the World Bank Group piloted interventions in Djibouti that could lay the foundation for a more effective approach to future crises in low-income countries by targeting the nutrition of the most vulnerable groups. An impact evaluation of a pilot safety net in Djibouti confirms the benefits of combining workfare and nutrition activities. The World Bank's 2008 Food Crisis Response Development Policy Grant, complemented by a medium-term technical

assistance program, laid the groundwork for an unprecedented government commitment to a social protection program. A pilot safety net project that simultaneously addressed the two most serious human development challenges in Djibouti—malnutrition and unemployment—was launched in 2010, and additional financing operations in 2012, 2014, and 2016 followed. The series of operations, which combined nutrition and workfare activities targeting households with pregnant women and young children, created the foundation of a social safety net system. Preliminary results from the impact evaluation confirm the benefits of providing participants with access to income through the workfare program compared with nutrition activities alone.

SOCIAL SAFETY NET POLICY RESPONSES TO THE GLOBAL ECONOMIC CRISIS

Many middle-income countries affected by the global crisis found that poverty-targeted social safety nets were not flexible enough to increase coverage or benefits as needed, and low-income countries lacked poverty data and systems to target and deliver benefits. Social safety nets to address shocks received relatively less attention until the crisis. Most countries enjoyed strong and stable economic growth during the previous decade. Social safety nets focused on addressing the needs of the chronically poor or vulnerable and developing the human capital of the poor. Although these areas of support were relevant and important, the World Bank and its borrowers did not focus on developing flexible social safety nets appropriate for responding to systemic shocks. The food, fuel, and financial crises once again underscored lessons from previous crises. Countries that had developed safety net programs or institutions during

stable times could scale up better than those that had not, and the World Bank was better able to help them. The two most common constraints for World Bank support were weak country institutions and inadequate data. The lack of adequate social safety net programs in many countries led the World Bank to support instruments that were not designed for crisis response.

The World Bank was most effective in helping countries design effective social safety nets and provide targeted social transfers where it had steady engagement through lending, analytic and advisory work, and dialogue for an extended period before the crisis. Such long-term engagement—evident in Brazil, Colombia, Ethiopia, and Moldova, for example—enabled countries to develop well-functioning social safety net institutions and the World Bank to develop a deeper understanding of country dynamics. This experience underlines the importance of engaging during stable times to build social safety nets that can help countries respond effectively to shocks. Although the World Bank’s focus on systemic shocks has accelerated since the 2008 crises, designing safety nets (combined with other relevant programs) that adequately address systemic shocks needs greater attention. Because shocks are transitory in nature, an important characteristic is the ability to expand and contract to reach different population groups as needed. Access to reliable poverty data, crisis monitoring systems, and flexible targeting systems are important elements to develop appropriate social safety nets.

The evaluative evidence suggests that it is possible to design and implement effective social safety net programs to protect the poor and vulnerable against shocks even in the poorest countries. Impact evaluations show the short-term

effectiveness of these programs in protecting the poor and vulnerable if well implemented. IEG conducted a comprehensive review of the impact evaluation literature on social safety nets in 2011 and found that many safety net interventions, including conditional and unconditional cash transfers and workfare programs, achieved their primary objectives of raising households’ immediate consumption and income and reducing poverty. In some cases, they also enhanced households’ ability to mitigate the negative effects of shocks. In Liberia during the food and financial crises, the World Bank helped protect the poor and vulnerable from the shocks through a public works program and a program for vulnerable women and children. The public works program provided income support to 17,000 vulnerable households. Based on the success of this program, the World Bank prepared a new project to scale up this intervention to 49,500 beneficiaries. The program for vulnerable women and children provided food support to 87 percent of its target population.

Well-designed safety net programs can be an effective mechanism to help households cope with food insecurity, as illustrated by the program implemented in drought-prone regions in Ethiopia. The Productive Safety Net Program (PSNP) is one of Sub-Saharan Africa’s largest, which the World Bank supported with a series of adaptable program loans during 2005–16 as part of a consortium of donors. PSNP targets chronically food-insecure rural households in drought-prone highlands and in pastoral lowlands to reduce their vulnerability. The program contributed to improved food security in all Regions, helped rehabilitate the environment and natural resources, and improved access to education and health care. An impact evaluation concluded that the PSNP has protected poor households from the negative effects of



shocks. A contingency budget and risk financing mechanism were added to the PSNP (and more recently to the Hunger Safety Net Program in Kenya) to allow for scale-up during crises, including to households that do not receive assistance in normal times. However, social protection programs initially designed for agrarian settings do not easily fit with highly vulnerable groups in the pastoral context because of a lack of infrastructure and considerably different social dynamics that could impede targeting and benefits allocation. Regarding pastoral populations, innovations such as the use of technology (smartcards and mobile payments) to deliver transfers that are not geographically tied to distribution points can increase the reach of social protection programs to mobile populations. This is especially critical for the chronically ill, the elderly, pregnant women, and nursing mothers.

Effective resilience building for pastoral communities vulnerable to drought needs to focus on household-level needs and recognize mobility. IEG's evaluation of the Pastoral Development Community projects in Ethiopia highlighted a need to differentiate between pastoral areas and people requiring urgent access to life-sustaining services. In a highly food-insecure environment, emphasis in the short term should be on resilience at the household level through activities such as restocking, emergency feeding and watering of livestock, or rangeland reseeding. In the medium to long term, IEG noted that projects like the regional pastoralism project in the Horn of Africa had an improved design over previous pastoral projects. The regional program is designed to focus on the resilience of communities living in drought-prone areas while building the capacity of national and regional institutions to respond to weather-induced emergencies in an effective and

coordinated way. It also recognizes that seasonal and cross-border mobility is a crucial feature of pastoral livelihoods and coping mechanisms during droughts and conflicts, focusing on the regional dimensions of strengthening access to resources and markets as well as disease control, fodder production, and early warning systems.

Environmental Policy Responses to Natural Disasters

Exposure to disaster risks is rapidly increasing around the world, and many regions are experiencing greater damage and higher losses than in the past. Economic and human losses will inevitably continue to increase unless resilience to natural disasters is built that enables community social and economic systems to reduce the impact and recover from shocks. These losses put sustainable economic and social development at risk. Annual total damage from environmental disasters increased tenfold between 1976–85 and 2005–14, from \$14 billion to more than \$140 billion. Average population affected each year rose from about 60 million people during 1976–85 to more than 170 million during 2005–14. Several factors influence disaster risk: hazard, exposure, and vulnerability. A hazard is the occurrence of a potentially dangerous naturally occurring event, such as earthquakes or tropical cyclones. Exposure relates to the population and economic assets located in hazard-prone areas. Vulnerability is the susceptibility of the exposed elements to the natural hazard. Climate change and increased exposure drive changes in hazard. Exposure increases with population growth in hazardous areas and when improved socioeconomic conditions raise the value of assets.

BUILDING RESILIENCE INTO DISASTER RESPONSE PROJECTS

The increasing impact of natural disasters requires new thinking, approaches, and scale to build resilience into World Bank Group disaster response projects. An important catalyst in this direction was the contribution of the 2006 IEG evaluation of the World Bank's response to natural disasters, which was influential in giving impetus to the creation of the GFDRR as the main window of World Bank assistance on disaster risk management and resilience. Important changes have also been observed in the World Bank Group's response to natural disasters, including a 2011 IEG study that compared 90 disaster investment projects during 2008–10 to a set of 528 disaster projects during 1984–2007. The study found that although the response to earlier disasters had been reactive and tactical instead of proactive and strategic in the support it provided between 2008 and 2010, the World Bank Group had shown flexibility and effective coordination in disaster responses. During this later period, World Bank disaster projects also made a clear shift toward risk reduction. The study found a significant increase in the number of projects supporting disaster risk reduction activities—from about 25 percent to 40 percent—but it was still a minority of projects. Evaluative evidence shows significant mainstreaming of disaster risk reduction into projects whose development objective is not disaster reduction. This is mostly through drainage and flood protection in water sector projects that focus on water supply and sanitation or through irrigation, drainage, or other works integrated into agriculture and rural development projects. Most exposure reduction and resettlement has been in urban water projects, most warning systems have been for cyclone or flood-related projects, and most financial risk management mechanisms

have been safety nets or microinsurance for agriculture or drought-oriented projects.

Effective partnerships and coordination of international and local relief and development agencies is a key to effective disaster response. This applies to all development assistance, but particularly after natural disasters when agencies are generally concerned with their visibility in the disaster relief effort, often to use it for fund raising. For example, an IEG evaluation found that in the aftermath of the tsunami in the Indonesian province of Aceh, about 10 agencies were providing new housing, each constructing houses to different standards and sizes. Not surprisingly, potential beneficiaries held off accepting new home proposals in the hope of securing a better and larger home from another agency. The evidence suggests that the World Bank was increasingly willing to collaborate and fit into an overall approach to post-disaster rehabilitation. For example, in the Pacific Islands, the small states CCPE points out that numerous donors were willing to support the rehabilitation of infrastructure after cyclones in Samoa and Tonga, but they were reluctant to fund the repair and replacement of private housing, so the World Bank agreed to provide funds for this purpose. Similarly, the evidence suggests that effective collaboration with local governments and nongovernmental organizations is essential for an effective response. A November 2010 IEG review of past World Bank experience that sought to guide its response to severe flooding in West Africa cited the evaluation finding that rebuilding social structures was a significant challenge and had generally not been done well. However, it was even more difficult if the natural disaster response ignored local institutions and caused the victims to depend on external emergency assistance.

ADAPTING TO CLIMATE CHANGE

Support for country measures to reduce the impact of climate change and to adapt to it became a significant and growing share of the World Bank Group's programs during the past decade. IEG evaluated climate change support and found that attention within the World Bank Group to all aspects of climate change, including adaptation, had increased substantially after the World Bank issued *Development and Climate Change: A Strategic Framework for the World Bank Group, Completion Report FY09–11*. This increase was reflected in, among others, the publication of *World Development Report 2010: Development and Climate Change*, an upsurge of climate change-related analytical work (including on the economics of adaptation), and greater funding for integrated national-level investment plans. Climate change also had much higher visibility in World Bank Regional and country strategies. The World Bank Group announced in 2015 that it would increase climate financing further to increase global efforts to help countries tackle the impacts of climate change and move toward low-carbon growth.

IEG conducted a three-phase evaluation of the World Bank's support for countries in dealing with climate change and identified several challenges. The first two phases focused on various aspects of climate change mitigation. The third phase focused on climate change adaptation and distinguishes between adaptation to climate variability—citing floods, storms, and droughts as examples and referring to this as “an old and unfinished agenda”—and adaptation to climate change, which includes “wholly new challenges.” However, it recognizes that climate change has led to both the intensification of climate variability and new problems, such as sea level rise, and

sought to draw lessons from World Bank Group experience with both forms of adaptation.

The evaluation identified several challenges that the World Bank faces in its engagement with countries on climate change adaptation. Despite numerous innovative approaches, the World Bank still lacked sufficient instruments to help countries more fully manage risks of catastrophic losses. Although the World Bank had shifted its emphasis from natural disaster relief to disaster risk reduction in recent years, such efforts tended to face physical and financial sustainability problems. The evaluation also found that World Bank Group–supported infrastructure projects were often subject to climate risks (particularly earthquakes and flooding), but the World Bank Group lacked procedures for identifying and mitigating such risks. Furthermore, the evaluation noted that climate models had proved less useful than desirable in identifying adaptation alternatives, “suggesting the need for more attention to decision making under extreme uncertainty.” A particularly challenging area is the long-term impact of projects to increase agricultural productivity in areas of rain-fed agriculture. The evaluation found both climate variability and poverty tended to be acute in such areas, and sustainable land and watershed management projects appear to have enhanced local incomes, but their presumed long-term resilience benefits still needed verification. For example, there were cases in which inappropriate afforestation had also resulted in depleted groundwater.

The evaluation concludes the World Bank lacked a “comprehensive, outcome-oriented framework” to help guide, monitor, and evaluate the adaptation interventions it supported. It recommended that the existing results framework be “revamped” to

better track resilience outcomes and enhance learning from experience. In this connection, it also recommended that the World Bank develop operational guidelines for screening projects regarding climate risk and devoting greater attention to determining how to promote land uses that are more resilient. Evidence shows that the World Bank adopted many of these recommendations, particularly regarding screening new investment projects for climate risk as part of the 16th Replenishment of IDA commitments, giving greater attention to climate-proofing new infrastructure projects and seeking to integrate climate change adaptation measures into its landscape management operations. Furthermore, the World Bank is piloting holistic resilience building approaches such as the City Strength Program, with promising results.

STRENGTHENING ENVIRONMENTAL RESILIENCE IN SMALL STATES

Small states, most of which are also islands, are particularly vulnerable to acute environmental shocks. Many of these states are in areas exposed to extreme weather events, such as cyclones and hurricanes. Small islands are also exposed to the impacts of climate change, especially rising sea levels. IEG examined World Bank support for responding and helping to build resilience to the full range of environmental shocks (including climate change) in two regional small state groups—the six countries in the Organisation of Eastern Caribbean States (OECS) and nine Pacific Island countries—as part of a recent cluster country program evaluation.

Disaster risk management has been a core part of World Bank engagement in both the OECS and the Pacific Island country programs.

World Bank engagement has covered three broad areas: reducing disaster risks by increasing infrastructure resilience, enhancing capacity and preparedness (including financial preparedness), and supporting policy reform. The following are among the principal findings of this evaluation regarding environmental resilience:

- Successive World Bank projects in infrastructure have helped to establish more disaster-resistant standards and have funded risk reduction infrastructure such as seawalls and dikes.
- The programs have included a range of activities aimed at enhancing preparedness and risk management capacity, with mixed results. Early warning systems seemed to have high value, though some disasters provide little opportunity for advanced warning. Planning processes have rarely used hazard maps or other analytic work. Although technical training has led to some improvements in data management, high personnel turnover has limited its long-term impact.
- World Bank–supported programs also sought to bring a stronger resilience focus to government planning processes and to better integrate climate change–related concerns, with mixed results. For example, significant progress was observed in raising finance ministers’ awareness of disaster risk and the ability to manage its fiscal implications, but other tangible policy changes were relatively few, and World Bank efforts to shift land use policy had limited effectiveness mostly because of opposition to zoning regulations from the tourism industry and private landowners. Some building codes were approved, but private sector compliance with them is still weak.

The World Bank’s engagement in small states shows a need for a long-term involvement that focuses on helping countries to proactively anticipate and prepare for extreme weather events—for example, through building and

maintaining the regional and national institutional capacity needed to do so. IEG's evaluation concluded, "The approach to disaster risk management of directly supporting resilience building (in small states) was helpful, but had limits." It added, "Making real improvements in vulnerability requires continuing efforts to foster wholesale changes in public and private incentives and behavior, and the long-term risks of climate change (including helping countries access climate financing) need to be addressed."

Multipronged Policy Responses to Pandemics

Any communicable disease can become a pandemic if it spreads rapidly across countries and puts poor countries and poor communities at risk of falling deeper into poverty.¹¹ The World Bank has actively supported global efforts to contain pandemics such as avian influenza and the Ebola virus in recent years. Both the avian influenza and Ebola pandemics were successfully contained, which speaks to the efficacy of the international effort. The implications of most pandemics go beyond the health system. They often require an integrated approach from different ministries and agencies (for example, animal health and human health in the case of avian influenza), behavior changes, integration of national-level programs and policies with local implementing agencies, integration of the actions of multiple donors, and integration of public, private, and nongovernmental organization activities.

IEG drew lessons from evaluations of the World Bank's response to the avian influenza epidemic that can be applied to other pandemics. The findings showed that the World Bank, in partnerships with governments and other international agencies, moved rapidly to provide

support through policies and analytical work, mobilizing donor finance, and preparing and implementing a Global Program for Avian Influenza Control and Human Pandemic Preparedness and Response (GPAI). Under the GPAI, the World Bank financed 83 operations across 63 countries that addressed avian influenza, zoonotic diseases, or pandemic preparedness or response. The GPAI was the first global investment program supported by the World Bank, and it adopted two key innovations: a project design template and an expedited approval process. The rapid preparation may have led to some weaknesses in quality at entry, and the projects were not prepared any faster than those for other emergency interventions. However, the template system allowed the World Bank to prepare a large number of emergency projects in a relatively short period in an area in which it lacked prior experience. Inherent tensions existed between use of an emergency instrument with a short project life and attempts to build long-term capacity through complex civil works and institutional change.

Despite shortcomings, the partnership's effectiveness in combatting avian influenza hinged on effective collaboration across disciplines and agencies. Cooperation and coordination across sectors within the World Bank and in country agencies at the strategic level was significant. However, cooperation sometimes broke down at the project implementation level partly because of a lack of incentives for intersectoral collaboration within the World Bank. Little operational learning and knowledge sharing occurred among World Bank staff across projects during implementation except in Regions where some staff worked on multiple projects. At the country level, animal health agencies often showed higher commitment and interest than human health



agencies partly because they saw avian influenza as central to their core business. The World Bank lacked specific experience and technical expertise in animal health and pandemic preparedness, so it worked closely with other international agencies, particularly the World Organisation for Animal Health, the Food and Agriculture Organization (FAO), and the World Health Organization (WHO). The World Bank provided financing, project supervision, and coordination at the country and global levels while other agencies provided primarily technical support, including significant operational support from FAO and WHO. Some tensions existed between the World Bank and some staff in technical agencies regarding this division of responsibility, but it is difficult to imagine an alternative to World Bank leadership because no

other agency had the capacity to finance and manage investment projects at the scale needed. Organizational and operational coordination challenges sometimes led to implementation delays, but the overall level of cooperation between the World Bank and international agencies was unprecedented, and participants viewed the partnership as successful. The World Bank had a key role in motivating agencies to work together and helping governments recognize the need for action.

In some countries, it was not possible to secure sufficient supplies of quality seeds because either the local seed industry was not yet adequately advanced (Ethiopia and Nicaragua) or timely imports could not be arranged.

¹ In some countries, it was not possible to secure sufficient supplies of quality seeds because either the local seed industry was not yet adequately advanced (Ethiopia and Nicaragua) or timely imports could not be arranged.

² About two-thirds of the 67 DPOs and almost all the countries in the high fiscal stress zone included spending-related measures.

³ Less than one-third of the crisis response DPOs included specific targets for the fiscal deficit, fiscal revenues and expenditures, or the public debt ratio.

⁴ About half of the crisis response DPOs with fiscal content supported measures to protect or scale up expenditures on social safety net programs.

⁵ For example, 88 percent of the 67 crisis response DPOs with fiscal content contained measures to improve budget planning, execution, comprehensiveness, and transparency.

⁶ The World Bank contributed to these outcomes through policy dialogue, direct budget support, and a large amount of analytical work. A 2009 DPO used the window of opportunity during the global financial crisis and the resulting drop in oil prices to help accelerate reforms promoting fiscal sustainability. Apart from specific achievements such as a reduction in subsidies to the real sector (while protecting social spending) and rationalization of the use of oil-related savings, the development policy loan helped strengthen resilience by supporting the commitment to responsible public resource management, which continued after the crisis.

⁷ The government had followed a procyclical policy in 2006–08 when commodity prices hit record levels, which had unfortunate consequences when the prices collapsed. During the crisis, the government attempted a fiscal adjustment supported by the World Bank’s DPOs and technical assistance. However, the government’s reform effort lost momentum when copper prices recovered rapidly, and the newly adopted fiscal reform laws were not fully implemented and budgeting shifted back to a procyclical pattern. Therefore, the World Bank’s support to design the legislation and the sovereign wealth fund did not bring any tangible results.

⁸ Sixteen financial intermediary loans were approved in 11 countries between June 2008 and June 2010, amounting to \$3.8 billion—a significant 31 percent of total World Bank financial sector commitments.

⁹ These include the large infrastructure lines of credit in Bangladesh and India, the small and medium enterprises loan to the Arab Republic of Egypt, the Scaling-Up Microfinance loan to India, and the Bosnia and Herzegovina small and medium enterprises access project.

¹⁰ The facility offers members three distinct insurance products: coverage against a hurricane of specified wind speed, against an earthquake of a specified magnitude, and (most recently) against rainfall of specified severity.

¹¹ The internationally accepted definition of a pandemic in the Dictionary of Epidemiology is straightforward: “An epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.”

3 What Lessons Emerge from the Evaluations?

There has been significant learning in several areas on how to best support crisis response. In particular, the World Bank Group is shaping its advice on social safety net design to the special needs of crisis response in general and to specific types of crises. Furthermore, the World Bank and IFC have introduced a range of new instruments to support a more rapid and targeted response to crises. However, IEG conducted evaluations shortly after the crisis in several cases and therefore was unable to assess the medium- and long-term impacts of the World Bank's support. It would be useful to revisit some of these evaluations given the importance of understanding these impacts.

Lessons from World Bank Group Intervention Modalities

■ **Preparatory analytic work increases the likelihood of effective crisis support, but gaps exist in some areas.** Advisory services and analysis (ASA) at the country level was an important part of the World Bank's response to the global crisis. High-quality analytic work was a common thread in many of the successful interventions. Country programs with solid ASA portfolios had the foundation in knowledge and relationships with the authorities necessary to put well-designed

lending operations in place expediently when the need arose. However, IEG evaluations noted several gaps or weak areas in World Bank ASA that need addressed. The crisis response evaluation found cases in which the ASA and related diagnostic work underpinning operations in the financial sector appeared insufficient, including in countries with financial sector DPOs. The DPO program objectives in those cases were vague and overambitious rather than specific and carefully articulated. This lack of effective ASA also constrained the design of appropriate social safety net responses to both the food price crisis and the global economic crisis. Similar observations apply in cases of country-specific terms of trade shocks. The Zambia Country Program Evaluation found that the World Bank did not consider the implications of alternative copper price scenarios for the country's economic management even though this was clearly the fundamental risk facing the country at the time.

■ **Budget support through DPOs has been a dominant and indispensable part of World Bank responses to shocks, but DPOs require follow-up for effective long-term resilience building.** The DPO has been the workhorse of the

World Bank's support for responses to shocks because it can be implemented relatively quickly and provides fungible budget support to governments. However, because they lack follow-up actions and do not track progress over time, stand-alone crisis response DPOs were not well suited to follow up on the sustained reform agendas that were crucial to building medium-term resilience. Follow-up requires a continuous flow of analytical work, a series of programmatic DPOs with appropriate fiscal structural reform content, or both. Similar tensions have been observed with environmental DPOs. IEG evaluation work suggests this type of lending can be effective when the principal barriers to improving environmental outcomes are policy issues instead of poor institutional capacity or other constraints. However, other than offering fast-disbursing budget support in the aftermath of a shock, environmental DPOs used for crisis response typically make little contribution to the areas of environmental resilience building that require sustained policy reform over time.

■ **The DDO and Catastrophic Deferred Drawdown Option (CAT DDO) instruments appear to be the most effective in strengthening resilience when drawdown is genuinely deferred.** A DDO allows the borrowing country to defer drawing down DPO funds, and a CAT DDO formally links the drawdown of funds to the occurrence of a natural disaster. Evaluative evidence on the effectiveness of the DDO and CAT DDO is mixed. Some DPOs with DDO features used during the global crisis increased market confidence in the country's capacity to navigate the crisis, which helped prevent capital flight and maintained or restored access to borrowing at reasonable costs. This was notably true in Indonesia, where the DDO had formal contingent triggers related

to the cost of borrowing (this is atypical among DDOs). In many other cases that did not specify such triggers, drawdown was virtually immediate, and there were few benefits in increasing credibility and providing market reassurance. This experience suggests that the DDO mechanism design could warrant a second look to optimize its effectiveness in crisis response. In the Guatemala CAT DDO, exercising the drawdown option almost immediately appeared to reduce government incentives to complete the policy and institutional reforms envisioned under the loan, to the detriment of long-term environmental resilience building.

■ **Using financial intermediary loans for crisis response appears to offer limited benefits.**

World Bank FILs prepared in the wake of the global crisis sought to ease borrowing constraints on the private sector because of lack of liquidity in commercial banks. IEG evaluation work suggests that FILs have major limitations as a crisis response instrument. Many FILs did not disburse to the most affected firms or quickly enough help much in crisis recovery. FILs to institutions with prior FIL experience, repeat FILs, and FILs directed to exporters appear to have provided timely support to affected segments in some cases. However, FILs directed at new entities and at infrastructure appear particularly unsuited to scaling up for crisis response.

■ **Global programs can have valuable roles in improving the effectiveness of crisis response and strengthening resilience.** They have variously helped facilitate and streamline responses to crises, strengthen long-term resilience, and avoid inevitable delays associated with collecting funds once shocks materialize. Three notable programs addressed the food price crisis, the avian influenza pandemic, and natural disasters.

The 2008 GFRP provided a menu of fast-track interventions to process as emergency projects and set aside an associated funding envelope. The GFRP enabled resource transfers to vulnerable countries (notably in Africa), though the amounts received were modest in most cases. A lack of prior analytical work and institutional weaknesses in affected countries constrained the efficacy of responses in many cases. However, the GFRP helped reposition the World Bank as a key player in agriculture and food security matters and build experience for broader institutional crisis response mechanisms

Similarly, in response to the avian influenza pandemic, the GPPI's program framework document set out a common approach for projects responding to the pandemic. The framework provided a useful way to establish support for a global response to avian influenza involving a large array of development partners. It outlined activities that the World Bank would support, ensuring that projects contained the necessary core activities while enabling countries, with World Bank and technical agency assistance, to choose specific activities that met their national priorities. The program framework template included animal health, human health, and public awareness and information components, and nearly all of the stand-alone avian influenza projects adopted this structure.

Regarding natural disasters, the Global Facility for Disaster Reduction and Recovery was established in September 2006 to mainstream disaster reduction and climate change adaptation in country development strategies and to foster and strengthen global and regional cooperation among various stakeholders. IEG's evaluation work observed that the GFDRR had "elevated [disaster

risk reduction] to a new level of operationalization" within the World Bank by systematically focusing on ex ante risk reduction. The evaluation did not examine the contributions of specific GFDRR-supported interventions in strengthening country resilience to natural disasters as such. However, it did observe that the facility had an important, positive impact by improving the integration of disaster risk reduction concerns into more recent World Bank Group country assistance strategies and helped to enhance the quality of pertinent World Bank analytical work.

■ **IFC can help mitigate disruptions in private sector access to financing after systemic shocks, but it has faced delivery challenges.**

IFC responded to the global crisis by implementing or adapting several innovative platforms targeting trade finance, bank capitalization, distressed assets management, infrastructure, and microfinance. However, implementation delays lessened the impact of these initiatives, which in several cases were too small to have systemic influence. Still, there were some beneficial effects. In particular, IFC's Microfinance Enhancement Fund helped instill confidence in the availability of rollover financing to microfinance institutions, contributing to the restoration of stability in microfinance lending after the global crisis. In trade financing, although program targets were not met initially, the IFC facility provided funding for trade finance in individual client banks once obstacles were overcome.

Lessons from International Responses to Crises

■ **Governments, local institutions, and populations must own crisis response.**

This seems obvious, but a surprising number of evaluations cite lack of ownership as the reason for the lack of success of World Bank-supported



interventions. They also note lack of consultation and failure to involve stakeholders in the planning, design, and implementation of crisis response operations.

■ **Effective donor coordination is even more important in the context of crises than in noncrisis periods.** The aftermath of a crisis is often a chaotic scene of nongovernmental organizations, bilateral donors, and international bodies operating without coordination. Scope exists for an international effort to consider how best to handle the immediate aftermath of crises and propose solutions. Pandemics seem better served by WHO's clear central role and fewer nongovernmental organizations in the field. But natural disasters tend to lack a clear model for how to proceed.

Lessons from the World Bank Group's Approach, Internal Coordination, and Work Quality

■ **The World Bank has attempted to grasp the synergies of a multisector approach to resilience in most instances, and it should work with its international development partners to continue emphasizing the need for a holistic approach to resilience and crisis management instead of a narrower sector-by-sector approach, particularly in small states.** The World Bank Group displayed a multisector approach to strengthening resilience in countries covered through IEG's recent cluster country program evaluations, including Kazakhstan and Mongolia, and in the OECS and Pacific Island states. The crisis response evaluation noted that many DPOs initiated by the World Bank in the aftermath of the global financial crisis addressed

more than one dimension of resilience, especially in the financial sector and in fiscal policy. Supporting measures to improve financial, fiscal, and social resilience simultaneously is highly relevant given that financial and fiscal imbalances usually interact and can exacerbate each other, often with adverse social impacts. Banking crises can trigger debt crises as governments strive to recapitalize distressed banks, and debt crises can stress bank balance sheets if banks suffer significant losses on their holdings of government debt and if a loss of confidence triggers withdrawals of deposits. Therefore, simultaneously addressing financial and fiscal vulnerabilities can be mutually reinforcing by reducing the likelihood that financial and fiscal stress aggravate each other. A natural disaster compounds all of these impacts further, similarly underscoring the need to work on the various dimensions to enhance countries' resilience.

■ **The growing World Bank operational portfolio in resilience deserves a greater degree of internal coordination.** Because almost every World Bank global practice is involved in work on one or more dimensions of resilience, the World Bank needs to ensure knowledge sharing across global practices and a concerted approach to identifying and filling knowledge gaps. Several IEG evaluations noted weaknesses in internal coordination, in some cases even identifying these as a cause of failure to achieve results in the field. The World Bank Group could consider initiatives to enable more effective coordination and knowledge sharing in this area.

■ **A rapid and flexible crisis response is important, but speed should not take priority over developing appropriate accountability and monitoring frameworks.** IEG has consistently highlighted the lack of appropriate monitoring as

a weakness of the World Bank's crisis response. IEG's 2011 natural disaster Briefing Note states, "By their nature, emergency recovery and reconstruction projects and programs are likely to be prepared under considerable time pressure, but this haste should not lead to a reduction in systems to ensure accountability and transparency, particularly because they may disburse large sums in a short time period." In the Sri Lanka Tsunami Emergency Recovery Loan, the Implementation Completion and Results Report Review (ICRR) drew the lesson that in disaster recovery projects, a comprehensive and institutionalized monitoring and evaluation system is crucial for enabling informed decision making for policy and operations. The counterargument is that such systems could further overstrain the limited capacity the government has in place to manage the crisis. This is too simplistic. The World Bank needs to devise and set up monitoring frameworks that do not impose a major burden on project implementation yet ensure a basic measure of accountability. Innovative approaches could help in this regard, such as use of geospatial data and mobile phone data.

■ **The World Bank should use crises as an opportunity to build long-term resilience, and client ownership is an essential ingredient.** Addressing underlying structural issues under crisis conditions is inherently difficult and can succeed only when there is careful preparation and a clear understanding among country stakeholders of the need for the changes. Advice on the subject in IEG evaluations is conflicted. Thematic evaluations tend to argue that the World Bank has not taken enough advantage of its operations during crises to build long-term policies and capacity. Conversely, ICRRs of crisis response operations frequently note a lack of progress or success in components supporting long-term policies or capacity building

attributable to dissipating ownership when crisis conditions subside. There is no simple answer. Making the best use of crisis response to launch sustainable long-term resilience building requires careful contextual and political economy analysis to determine what is appropriate.

Areas Where More Knowledge Is Needed

Little is known about the benefits of focused interventions on individual resilience dimensions versus comprehensive approaches that incorporate all dimensions of resilience. During times of crisis, the reactive response of policy makers and the affected population is unsurprisingly to address the impact and specific causes of the crisis at hand. However, this tunnel vision effect or silo approach misses the opportunity to build resilience in a comprehensive and more durable manner.

Also, policy choices and international support have not paid adequate attention to the trade-offs between measures addressing the immediate effects of shocks and those laying the basis for long-term resilience. Relatedly, there is insufficient understanding of country conditions under which crises were instrumental in pushing governments to act on, and rally public support for, strengthening long-term resilience, and those under which long-term resilience considerations were subordinated to the imperative of the crisis response. It would be useful to keep monitoring the international community's resilience interventions and individual country responses to see the extent to which they have continued the shift toward upstream work and a focus on vulnerability reduction. Specifically, it would be useful to assess the extent to which the international community has contributed to building up social protection mechanisms that can be scaled up and targeted to the poor and vulnerable in response to systemic shocks.

Bibliography

- Gaarder, M., L. Kelly, and S. Wegner. 2017. *A Contribution to the World Bank Group's Food Security Response*. Washington, DC: World Bank.
- GFDRR (Global Facility for Disaster Risk Reduction). 2016. *The Making of a Riskier Future: How Our Decisions Are Shaping Future Disaster Risk*. Washington, DC: World Bank.
- Hallegatte, Stephane, Adrien Vogt-Schilb, Mook Bangalore, and Julie Rozenberg. 2017. *Unbreakable: Building Poor People's Resilience in the Face of Disaster*. Washington, DC: World Bank.
- World Bank. 2006. *Hazards of Nature, Risks to Development: An Evaluation of World Bank Assistance for Natural Disasters*. Washington, DC: World Bank.
- . 2008. *Environmental Sustainability: An Evaluation of World Bank Group Support*. Washington, DC: World Bank.
- . 2010a. *Evaluation of the World Bank Group's Response to the Global Economic Crisis: Phase I*. Washington, DC: World Bank.
- . 2010b. *Responding to Floods in West Africa: Lessons from Evaluation*. Washington, DC: World Bank.
- . 2010c. *Response to Pakistan's Floods: Evaluative Lessons and Opportunity*. Washington, DC: World Bank.
- . 2011a. "Natural Disaster Response: Lessons from Evaluations of the World Bank and Others." IEG Evaluation Brief 16, World Bank, Washington, DC.
- . 2011b. *Project Performance Assessment Report: Ethiopia—Productive Safety Net Project*. Washington, DC: World Bank.
- . 2011c. *Social Safety Nets: An Evaluation of World Bank Support, 2000–2010*. Washington, DC: World Bank.
- . 2012a. *Adapting to Climate Change: Assessing the World Bank Group Experience Phase III*. Washington, DC: World Bank.
- . 2012b. *Evaluation of the World Bank Group's Response to the Global Economic Crisis: Phase II*. Washington, DC: World Bank.
- . 2012c. *Liberia Country Program Evaluation: 2004–2011*. Washington, DC: World Bank.

- . 2012d. *The Global Facility for Disaster Reduction and Recovery—Global Program Review Volume 6, Issue 2*. Washington, DC: World Bank.
- . 2013. *The World Bank Group and the Global Food Crisis: An Evaluation of the World Bank Group Response*. Washington, DC: World Bank.
- . 2014a. *Responding to Global Public Bads: Learning from Evaluation of the World Bank Experience with Avian Influenza 2006–13*. Washington, DC: World Bank.
- . 2014b. *The Big Business of Small Enterprises: Evaluation of the World Bank Group Experience with Targeted Support to Small and Medium-Size Enterprises, 2006–12*. Washington, DC: World Bank.
- . 2014c. *World Bank Group Support to Health Financing*. Washington, DC: World Bank.
- . 2015a. *Financial Inclusion: A Foothold on the Ladder toward Prosperity? An Evaluation of World Bank Group Support for Financial Inclusion for Low-Income Households and Microenterprises*. Washington, DC: World Bank.
- . 2015b. *World Bank Group Engagement in Resource-Rich Developing Countries: The Cases of the Plurinational State of Bolivia, Kazakhstan, Mongolia, and Zambia*. Washington, DC: World Bank.
- . 2016a. *Cluster Country Program Evaluation on Small States—Regional Program Evaluation of the Organisation of Eastern Caribbean States: Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines*. Washington, DC: World Bank.
- . 2016b. *Cluster Country Program Evaluation on Small States—Pacific Island Countries Program Evaluation (FY05–15)*. Washington, DC: World Bank.
- . 2016c. *World Bank Group Engagement in Small States: The Cases of the OECS, PICs, Cabo Verde, Djibouti, Mauritius, and the Seychelles*. Washington, DC: World Bank.
- . 2016c. *Lessons from Environmental Policy Lending*. Washington, DC: World Bank.
- . 2016d. *The World Bank Group's Support to Capital Market Development*. Washington, DC: World Bank.
- . 2017. *Indonesia PPAR—Public Expenditure Support Facility*. Washington, DC: World Bank.



IEG
INDEPENDENT
EVALUATION GROUP

WORLD BANK GROUP
World Bank • IFC • MIGA

The World Bank
1818 H Street NW
Washington, DC 20433

