
APPENDIX B: STUDY METHODOLOGY

This evaluation uses the IEG-World Bank (WB) objectives-based evaluation methodology in which performance is evaluated by measuring the Bank's progress toward its objectives. In a broad sense this involves the Bank's Mission Statement as well as OP, BP, and GP 8.50. In a more restricted sense, it concerns how well disaster response projects attain project-level objectives. The study draws heavily on completed and ongoing independent and self-evaluation, especially Project Performance Assessment Reports (PPARs).

Evaluative Questions

The study addresses questions in five areas:

- **Relevance.** Do the Bank's policy goals address the major disaster-related needs of client countries? Are they aligned with the Bank's overall strategic objectives and competencies? Have operations been aligned to policy and to country priorities? To what extent have operations complied with the policy by incorporating effective prevention and mitigation measures? Does the current policy provide adequate guidance to Bank staff? What has been the impact on operations of the policy changes that occurred?
- **Effectiveness.** How well have operations performed against the objectives of Bank policy? To what extent have operations routinely achieved their stated disaster-related objectives? How sustainable have the projects and initiatives been? How effectively has the Bank coordinated its activities with those of other donors? How have Bank skills and organization hampered/fostered its effectiveness?
- **Institutional development impact.** How effectively have operations promoted owner-

ship and engagement of beneficiaries and civil society? Have they developed in-country capacity for disaster prevention and mitigation?

- **Generation of lessons.** Has the Bank developed best practice for mitigation, vulnerability reduction, donor coordination, poverty alleviation, and creating strong borrower ownership? What impact do events that take place during the emergency phase, before the Bank is usually involved, have on projects? How has the analysis of natural disaster risks influenced the design of operations? How can the situation of the poor be most effectively taken into account by post-disaster operations?

Evaluative Instruments and Methods

The study examined the Bank's experience from several angles. The basic approach taken was to avoid sampling by identifying a full universe. In the staff survey, all task managers that worked on at least one disaster project were invited to respond. If the evaluation was looking at an activity (such as housing) or a disaster type (such as tropical storms), all the relevant projects were reviewed. The study used the following instruments.

Portfolio Review

The study identifies the post-1984 portfolio of disaster operations financed by the Bank. Ratings data are reviewed, and patterns and trends in the Bank's lending in this area are identified (emergency lending projects initiated as a result of a disaster, projects with components aimed at disaster prevention and mitigation, and reallocations in response to disaster).

Desk studies (described below) were conducted of a representative sample of projects that reflects the degree to which each approach is represented in the portfolio. The

Box B.1: The Natural Disaster Portfolio: What Was Counted and What Was Not

The natural disaster portfolio review took into account all projects with any activity related to disasters, although it excluded many activities that have a non-disaster-related purpose, but that may also help to reduce the impact of disaster. For example, projects that build urban storm sewers or irrigation projects that improve drainage both have a positive impact in the event of disaster-related flooding. The study did not include such activities under the category of “flood mitigation” *unless they were a direct response to a specific disaster event, or the wording in project documents specifically mentioned their contribution to disaster prevention.*

post-1984 portfolio of disaster operations was analyzed for patterns and trends in the Bank’s lending in this area. Work financed through trust funds was studied.

Natural Disaster and Emergency Lending Database

The study team created a database containing all the available information on Bank-financed disaster responses. This was analyzed to identify which activities have been undertaken most often, along with project performance ratings, to determine where the Bank has been most successful, as well as where it needs to improve practice.

Inter alia, the information generated from a review of the full universe of projects indicates: What percentage of projects include balance of payment support? How many reconstruct public buildings, urban infrastructure, private enterprises, and/or family homes? An equally important focus of the database is on an analysis of the activities and the lessons, and the results that they achieved.

Literature Review

The study conducted a review of the literature to inform the research and analysis processes with the findings of relevant academic and development agency research. Areas of consensus and controversy are identified, and issues and trends relevant to the Bank are explored. More specifically, the review report begins by outlining a short history of disaster response in Chapter 1. Chapter 2 discusses issues important to

understanding disaster risk, such as man’s connection to disaster, vulnerability, the macroeconomic effects of disaster, factors that amplify disaster effects, the effects of recurring disasters, cities and vulnerability, and the connection between underdevelopment, poverty, and risk. Chapter 3 explores the business of reducing risk, including topics such as mitigation, resources and financing, an integrated approach to risk reduction, and integrating poverty reduction and development programs with disaster risk reduction programs. Chapter 4 deals with the business of transferring risk, including cost-spreading financial mechanisms—insurance, reinsurance, and microfinance. It also touches on the approaches to disaster of various development organizations, including the ADB, DFID, the IDB, and UN organizations, as well as the World Bank.

Project Timing

The study analyzed the elapsed time of three distinct periods of the project cycle, including the initial preparation time (from disaster date, when available,¹ to Board approval), first disbursement time (from Board approval to effectiveness date²), and implementation time (from effectiveness date to revised closing date).

The study examined the entire disaster portfolio as well as all Bank investments with the aim of identifying projects that contain at least two dates. The study then categorized the relevant projects into four groups: balance of payment (BoP) projects,³ Emergency Recovery Loan (ERL) projects, all natural disaster projects, and all projects Bankwide. Balance of payment projects were selected from only completed projects,⁴ while ERL projects, the disaster-related projects, and the entire portfolio of projects included both ongoing and completed projects. In other words, 15 projects comprised the full universe of the BoP group; 89 projects, the full universe of the ERL group; 459 projects, the full universe of the disaster projects group; and 4,503 projects, the full universe of the entire Bank portfolio approved between 1984 and 2005.

When analyzing the project preparation time period, disaster event and Board approval dates were found in 11 BoP projects, 52 ERL projects,

and 66 disaster-related projects; project concept dates (PCDs) and Board approval dates were identified in 4,322 projects. With respect to first disbursement times, Board approval and effectiveness times were available in 16 BoP projects, 79 ERL projects, 455 disaster-related projects, and 4,369 other projects. As for implementation times, effectiveness and revised closing dates were found in 17 BoP projects, 79 ERL projects, 435 disaster-related projects, and 4,503 other projects.

The study also examined the projected and actual completion times of the 303 completed projects found in the natural disaster portfolio. The study analyzed project timing using two approaches. First, it focused on the projected and actual completion times of projects with disaster-related objectives. The project objectives were categorized into at least one of 11 areas: (1) disaster management; (2) rehabilitation and construction of public infrastructure; (3) agriculture improvements, environmental conservation, and natural resource management; (4) economic restoration and strengthening; (5) pre-event disaster prevention; (6) rehabilitation and construction of housing; (7) financial assistance; (8) project management; (9) operation and maintenance; (10) donor coordination; and (11) resettlement of affected populations. Second, the study looked at disaster activities derived from descriptions of the project components. Based on the descriptions, the study recognized 60 natural disaster activities, corresponding to 60 natural disaster component categories. Relevant projects contained at least one disaster activity.

Analysis of Balance of Payment/Budget Support

In the Bank's involvement in post-emergency situations, there has been an emerging trend of providing balance of payment (BoP) assistance or budget support to the affected countries as a means of stabilizing macroeconomic conditions. After the study database identified the post-emergency lending projects that were specifically designed to improve and support the BoP, the country assistance evaluation (CAE) findings and other macroeconomic indicators were analyzed to measure the economic impact

of the selected natural disasters and the effects of these operations on the national economy. Empirical data were gathered; the effects of the BoP lending on the recipient country's economy were examined in the immediate, mid, and long term; and its effectiveness was evaluated. This entailed the following research activities:

- Identifying post-emergency lending projects that were specifically designed to improve and support the BoP as a means to stabilize macroeconomic conditions and to minimize the government deficit
- Gathering information on countries that were afflicted by a natural disaster and were provided with the BoP lending over the past two decades, and to summarize the features of the BoP lending together with the methodology of its implementation
- Collecting data on monthly BoP and macroeconomic indicators available at the IMF/World Bank Statistical Database for each relevant country over a pre- and post-emergency time-period.
- Developing econometric models with available empirical data in order to test the effectiveness of the BoP lending on economic stabilization in the post-disaster context
- Comparing the BoP performance of a target country over a several-disaster period, looking at instances when it received BoP lending and when it did not. Results were compared across countries and/or regions as appropriate.

Surveys and Interviews

Task managers still working for the Bank who had implemented one or more emergency loans were surveyed to gather the insights they have obtained through these experiences. In addition, individual interviews of other relevant stakeholders were conducted, including a survey of beneficiaries that received Bank-financed assistance at least five years ago to ascertain their perceptions of the process, their satisfaction with any infrastructure constructed, and the nature of longer-term impacts. The survey instrument used is reproduced in Attachment 1 to this appendix.

To gain a better understanding of project effects on the ground, the study conducted a

survey of project beneficiaries in El Salvador. Under IEG supervision, a team of surveyors conducted a survey of housing units (single-family homes and condominiums) built by the El Salvador Earthquake Reconstruction Project (L 2873) for low-income families affected by the earthquake. The draft survey instrument (see below) was developed in conjunction with the Ministry of Foreign Relations' Department of External Cooperation. The housing units surveyed covered the work of the four participating financial institutions: CREDISA, CASA, Atlacatl, and AHORROMET. The surveyors participated in the data analysis process. At the end of the analysis process, the team presented written and oral observations.

The survey included questions about householder characteristics, the housing unit and the surrounding neighborhood, and homeownership issues. The survey instrument is reproduced in Attachment 2 to this appendix.

On September 22, 2004, the IEG study team held a stakeholders' workshop with 19 NGO representatives participating in public-private partnership activities financed in part by the Gujarat Emergency Earthquake Reconstruction Project (GEERP). The conclusions the participants drew from their experience in response to the 2001 earthquake in Gujarat were summarized from detailed notes taken during the session. The document was used as a study Working Paper. The summary was shared with the participants, who were given the opportunity to comment and/or correct errors of fact or interpretation.

Desk Case Studies

The study team performed desk studies on a selection of the projects identified by the portfolio review, with the intent of gaining an overview of the key events that take place during implementation of Bank-financed emergency projects. The study sample was selected to reflect the distribution of natural events to which the Bank most often responds as shown by the port-

folio review. And they were weighted toward projects implemented under the current policy.

Targeted Inquiries into Disaster-Specific Issues and Themes

A number of themes were explored. For instance, topics requiring a broader overview including the experience of other donors were examined: donor coordination, partnerships, the use of disaster insurance, and other donors' experience, including approaches to loss reduction (in those countries most prone to disaster). Other topics included *inter alia* a review of disaster-related local institutional development, contingency finance, damage assessment, storm shelters, gender issues, and an analysis of CASs.

Field Case Studies

Based on the Portfolio Review and the findings of the Desk Case Studies, five field case studies that were outliers for a variety of reasons were selected for extensive fieldwork. This work was done to see if the patterns identified for the full universe of projects held for: projects that were very large Bank-financed natural disaster assistance programs (earthquakes in Turkey); unusual topography where disaster damages sometimes reach a multiple of GDP (small island states in the Caribbean); the 100-year event (Hurricane Mitch in Central America); very large borrowers confronting the same events more than once (India, earthquakes and floods); frequently repeated Bank-financed projects for the same disaster type under successive policies (floods in Bangladesh); and a sixth case, which was done only as a desk study, examined loosely governed states and disaster interaction (tropical storms and floods in Mozambique).

External Advisory Panel

A panel of experts in the field of developmental responses to natural disaster was convened to advise the study team and to review key evaluative documents and the final study report.

Attachment 1

Natural Disasters and Emergency Reconstruction: An IEG Review of Bank Assistance Project Manager Survey

1. If there was something you did during the course of a natural disaster-related project that you consider best practice, please describe it here.
2. What types of project designs or activities, if any, should Bank-financed disaster lending or non-lending services avoid?
3. What types of disaster-related project designs or activities is the Bank particularly good at?
4. a. Is the Bank's disaster-related lending focused enough on the poor?
 - Yes
 - No
 b. How could the Bank's disaster-related lending better address the needs of the poor?
5. How can the Bank increase the effectiveness of coordination with other agencies involved in disaster prevention or response?
6. What lessons have you learned about assessing damages after a major disaster event that the Bank or its Borrowers need to take into account?
7. Which beneficiary participation activities significantly enhance the implementation of disaster-related lending?
8. Under what circumstances (if any) have you seen beneficiary participation be counterproductive in the post-disaster context?
9. What can be done to increase borrower ownership of disaster prevention/mitigation components in natural disaster-related projects?
10. a. Have you utilized the Hazard Management Unit (TUDHM) (formerly known as the Disaster Management Facility)?
 - Yes
 - No
 b. What types of support do Task Managers confronting disaster need from the Hazard Management Unit?
11. a. After board approval, what avoidable delays have you encountered in disaster-related projects?
 - b. What, if anything, could the Bank do about these delays?
12. What new directions should the Bank's efforts in Natural Disaster prevention and mitigation take?
13. What additional disaster-related lending or non-lending services might the Bank offer?
14. What aspects of the Bank policy governing natural disasters (OP 8.50 Emergency Recovery Lending) do you feel need be changed during the ongoing policy revision exercise?

15. Do you believe that the majority of Bank-financed disaster projects achieve their disaster prevention/mitigation objectives?
- Yes
 - No
16. Emergency Recovery Loans are currently allotted 36 months for implementation. In a revision of OP 8.50 (Emergency Recovery Assistance) how many months would you allocate for implementation?
17. During the current revision of OP 8.50, what types of emergencies would be appropriate for the new policy to cover? (Please check all that apply):
- Epidemics/pandemics
 - Post-conflict
 - Conflict reduction
 - Failed states
 - Natural disasters
 - Technological disasters
 - Economic crises
 - Acts of terrorism
 - Other
- If other, please specify
18. What training should be provided to task managers new to disaster?
- A short disaster training course for all TMs
 - A mandatory training course for all task teams starting a disaster-related project.
 - A training course for only those task teams that request one.
 - No training is needed
 - Other
19. If there is something else that you would like to say about the effectiveness of Bank activities in the post-disaster context, please note it here.

Attachment 2

Natural Disasters and Emergency Reconstruction: An IEG Review of Bank Assistance Household Survey: El Salvador

Homeownership questions

		Number and percent:
Did someone occupy this unit before you?	<i>Yes</i>	%
	<i>No</i>	%
What is your legal situation regarding this house?	<i>Owner</i>	%
	<i>Under contract</i>	%
	<i>Renting</i>	%
	<i>Occupying an abandoned house/ squatter</i>	%
		%
If you own this unit, in whose name is the title?	<i>Man</i>	%
	<i>Woman</i>	%
	<i>Both</i>	%
	<i>Don't know</i>	%
Before moving to this home, where did you live?	<i>Rural area</i>	%
	<i>Capital city</i>	%
	<i>Another city</i>	%
		%
In your last home, what was your legal situation regarding that unit?	<i>Owner</i>	%
	<i>Under contract</i>	%
	<i>Renting</i>	%
	<i>Living with others without paying</i>	%
	<i>Living in an abandoned house</i>	%
	<i>Public dormitory</i>	%
	<i>Homeless</i>	%
	<i>Other</i>	%

The Housing Unit and Surrounding Neighborhood

How did the 1986 Earthquake affect you?	Destroyed my home
	Nothing/don't remember
	Damaged my home
	Psychological impact
	Lost personal effects
	Lost a family member
What do you like about this house?	Family member injured
	Everything
	Location
	That I own it
	Nothing
	Privacy
	House size
	Land area
	Comfortable
	Accessibility

What worries you about this house?

Roof (houses)
 Nothing
 Quality of construction/ materials/water infiltration
 Walls
 Interior space is too small
 High monthly payment
 Location
 Insecure/Vulnerable to criminals
 Plumbing
 Flooring
 Environmental pollution

What improvements have been made on this house?

None
 Replaced doors or windows
 Extra rooms
 Replaced roof
 Enlarged at least 1 room
 Dividing walls
 Added a second floor
 Replaced the flooring
 Security grill work

Name 3 things you like about this neighborhood

Mass transportation
 Low crime
 Central location
 Everything
 Quiet
 Basic services
 Green zone
 School nearby
 Nothing
 Neighbors
 Climate

Name 3 things that worry you about this neighborhood

Nothing
 Potable water in short supply
 Risk of road or pedestrian accessibility to the community being lost
 Danger/risk
 Crime
 Contaminated river nearby
 Inadequate garbage collection
 Flooding
 Retaining walls
 Lack of play areas
 Lack of schools
 Everything
 Lack of street lights
 Poor quality materials in stairs/walkways

Attachment 3

Original Survey Instrument in Spanish

Colonia:

Pasaje:

1. **¿Alguien ocupó la casa antes de usted?** SI NO
2. **¿Cuál es su situación referente a esta casa?**
 Propietario Con promesa de venta Alquilando Ocupando casa abandonada
 Otra
3. **¿Si es dueño, a nombre de quién está la escritura?**
 Hombre Mujer Ambos No sé
4. **¿Cómo le afectó el terremoto de 1986?**
5. **¿Antes de pasar a esta casa, dónde vivió?**
 En el campo En la ciudad capital Otra ciudad
6. **¿En su anterior vivienda, cuál era su situación?**
 Propietario Con promesa de venta Alquilando Vivía con otros, sin pagar
 Ocupando casa abandonada Dormitorio público Sin casa Otra
7. **¿Qué es lo que le gusta de esta casa?**
8. **¿Qué es lo que le preocupa de esta casa?**
9. **¿Qué mejoras le han hecho a la casa?**
10. **Mencione tres cosas que le gusta de este barrio:**
 - 1.
 - 2.
 - 3.
11. **Mencione tres cosas que le preocupa de este barrio:**
 - 1.
 - 2.
 - 3.