

Response to Pakistan's Floods: Evaluative Lessons and Opportunity



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Independent Evaluation Group, The World Bank Group
1818 H St., NW
Washington, DC 20433

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Contact: IEG Communication, Learning, and Strategies (IEGCS)
e-mail: ieg@worldbank.org
Telephone: 202-458-4497
Facsimile: 202-522-3125

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1. This note assembles some of the evaluative experience that may be relevant to the Pakistan flood recovery program. Prepared quickly, it has a selective focus, and hence may well miss some important aspects. While the destructive impact of the calamity is widespread on the well-being of the population, the chosen areas of this note refer primarily to restoring rural livelihoods. They draw on what seem to represent the most relevant evaluative experiences from within and outside the World Bank.

2. There are many differences between the current Pakistan flood and other floods and emergencies in Pakistan, elsewhere in South Asia, and globally – in their intensity, geographical coverage, and the effects on people and the economy. Yet there are insights that can be gleaned from other experiences. The evaluations of past flood prevention and rehabilitation in South Asia and elsewhere, adapted to the situation of Pakistan, could offer useful lessons for designing an effective response.

The Scale of the Disaster

3. The floods, which began in the northern part of Pakistan in late July and gradually spread south along the Indus river basin in August, have been unusual in their severity, causing widespread displacement and destruction of resources. As of early September, 1,677 people had died as a result of the floods and damage to crops, housing, other buildings, roads, and irrigation infrastructure was estimated at \$6.5 billion or more. Some 17.6 million people have been affected by the 2010 flood, nearly twice the number affected by the 1992 floods (10 million).

4. There are major concerns about the impact of the floods on rural livelihoods in heavily flooded areas with damaged infrastructure: problems with planting of the rabi (winter) crop of wheat if floodwaters are slow to recede; the spread of water-borne disease; and food security challenges for the poor. Damage assessments are ongoing, particularly in the more recently affected downstream areas. Evidence of the scope and magnitude of the situation can be expected to change, possibly substantially.

5. Disasters are highly destructive in their impact on peoples' health, livelihoods, and well-being, particularly for the poor. The immediate challenge is to respond urgently to reconstruction needs but in ways that improve on past practices and reduce the chance of a recurrence of problems in the future. There is an equally urgent need to restore rural livelihoods, especially through restoring and improving agricultural productivity and incomes.

6. As flood waters continue to move down the basin, it is important to remember that Pakistan's main problem prior to the flood has been too little water rather than too much: water use efficiency is very much part of the equation. The affected area is the world's largest contiguous irrigation network, but that network has neither been adequately maintained nor modernized in recent years. Water shortages, increasingly affected by climate change, have been partly masked by groundwater drilling that provides about half the irrigation water, leading to

declining water tables in many areas. In this respect, there is the need, even in the midst of an emergency, to take action with an eye on the future.

Effectiveness of Reconstruction

7. This short note could not probe far into the physical, institutional, and governance aspects of reconstruction. But it does underscore the importance of the organizational environment for rural rehabilitation in Pakistan and how the responses are managed in both the short and long term.

GOVERNANCE

8. Two points of background, in particular, would seem to affect how governance plays out in the program of recovery. First, Pakistan at present does not have an elected local government. The local government system of elected *Nazims* and counselors has been disbanded. However, civil servants are in place at the local (district) level and are responsible for relief and recovery activities and the monitoring of interventions.

9. Given the vacuum in local elected government, it will be all the more important to have clear criteria to share responsibilities among the various actors above and below the local government level, to assess local needs, and monitor interventions. The operational material reviewed did not present examples of countries facing quite the same organizational challenges at the local level. In many countries there is now an established devolved or decentralized structure¹ on which improvements and actions could be based.

10. Second, a number of observers believe that the government lacks an effective mechanism to coordinate among different administrative levels, donors, and non-state actors. Given the broad evaluation experience of the importance of ownership and strong institutions, this suggests careful assessment of capacity, delineation of boundaries of responsibility, and design of linked reporting requirements across the core institutions.

11. Governance, specifically corruption, is inevitably a concern in emergency recovery operations. The vulnerability to corruption is presumed greater in these situations where large amounts of resources are made available and where urgency calls for by-passing slower processes of checks and balances. We are not aware of any well-supported evidence that has found a much greater share of leakage in emergency programs. This may be partly because corruption has proven difficult to measure. The IEG evaluation on hazards of nature (2006a) did not explicitly look at the question of corruption, although staff reported examples of cases of leakage encountered in field visits, sometimes partly due to weakness in design or application of processes. *Ex ante* and *ex post* checks and balances have been used to varying degrees in the Indonesia and Sri Lanka tsunami responses to reduce leakage (see the section on monitoring and

¹ Interestingly, in Indonesia, the Kecamatan Development Project (KDP) and associated Community Recovery Project largely by-passed the Provinces reaching straight from the center down to quite low administrative levels (the kecamatan) (World Bank 2010a, IEG 2006b).

evaluation below). Attention to the issue clearly would be important for ensuring that the benefits reach the affected and to maintain the credibility of the recovery program.

DESIGN AND IMPLEMENTATION

12. While initial quick action is important, experience suggests that in an emergency situation, such as that in Pakistan, sub-project readiness should not divert the investment focus from a well-planned priority list. In other words, if the highest-priority programs are not ready to go, it is better to not launch lower-priority activities simply because they are ready (IEG 2006a, undated a).

13. Investment approval processes have been shortened in some emergency situations where existing community investment approval processes were adapted for emergency purposes. For example, in Indonesia for the Tsunami investments in Aceh/Nias within the Kecamatan Development Program, one of the local government-level clearance steps was dropped. While the Implementation Completion Report (ICR) for that project does not offer much analytical evidence on the impact of this truncated procedure, discussions with staff revealed that misuse of funds was not a major issue. However, the program had a well-established management and monitoring and evaluation (M&E) system (World Bank Indonesia Community Recovery KDP Project 2010 ICR and staff discussion).

14. It has also been widely noted that in the design of projects and programs responding to disaster situations, the possibility of diminished institutional capacity should be taken into account at all levels through realism in the design of role and tasks, and strengthening in core capacities (for example, IEG undated a). With weak capacity, experience suggests that elite capture can rise (IEG 2005a). This would seem to be of considerable significance in the current situation of Pakistan, where existing capacity has been damaged and the needs for institutional strengthening are great.

15. Monitoring and evaluation are discussed more fully in a later section, but communities, nongovernmental organizations, and the media can play an effective role in partnering with government and monitoring results (for example, the Indonesia case, IEG 2006b). This may be particularly relevant in Pakistan, where the lack of an elected local government has left a political void.

BROADENING THE RECOVERY STRATEGY

16. There is evidence that some flood response programs have focused too heavily on rebuilding infrastructure and not enough on better adaptation and preparedness for the future in complementary investments, such as water and flood management, cropping pattern adjustment, rural finance, enhancing capacities of water users groups, and early warning systems. For example, in Bangladesh there was a gradual, significant, sometimes somewhat rancorous, shift in thinking about floods and flood management by government, donors and nongovernmental organizations (NGOs) starting in the late 1980s. Disasters increasingly came to be seen as part of the development continuum, to be expected and prepared for. Greater attention was placed on

mitigation, preparedness, coping strategies for the poor, flood proofing rather than flood control, and socio-economic and political factors (WHO 2000, Beck 2005).

17. Looking at the earliest phase of action, successful damage assessments are quick, detailed, and focused, but are not one-off efforts. They are updated as the situation unfolds and are not abandoned after the initial effort (IEG 2006a, Box 4.7). Quick initial actions and a realistic schedule were major success factors in the Mexico Earthquake Project. One factor in this success was that temporary reinforcement of dwellings in low income neighborhoods was done within the first month.

18. The recent IEG Haiti Earthquake Note finds that, “There is no emergency period where anything goes. Every response is either developmental or counter-developmental; every decision affects everything else.” In a similar vein, “The actions of the first few days affect all future decisions” (IEG 2006a).

19. Realism in planning longer-term action is also important. Many project designs have been unrealistic. Across some 60 disaster activities reviewed in the IEG Hazards of Nature study (2006), most required extensions of about a year and a half on 3- to 6-year projects, and by no means did all of the extended projects achieve their original targets.

Restoring Rural Livelihoods

20. Poverty reduction is more likely, at least in the short term, if targeted interventions focus on the recovery possibilities at the local level with community participation (IEG 2006a, 2002a). Agricultural revival is crucial, as the bulk of affected people are from rural areas. Yet not everyone may be able to be gainfully re-employed in the agriculture sector. Rural livelihoods can be expected to be severely impacted.

21. The importance of non-farm income may now increase in Pakistan among flood-affected persons. In any case, varying by region, a significant share of income is already from non-farm sources. In fact, the 2007-8 household income surveys indicate that only about 31 percent of Pakistan rural household income comes from crop and livestock production, about the same as wages and salaries. (Remittances, both local and foreign, make up about 10 percent.) Non-farm income opportunities will need to be addressed as an integral part of the recovery program. Both the Aga Khan Rural Support Program Evaluation (IEG 2002a) and other nongovernmental programs in Pakistan have some experience with this.²

CROPPING AND AGRICULTURAL INPUTS

22. There is limited relevant evaluative evidence on how to restart cropping and livestock activities, probably because the response to recent earthquake disasters has been predominantly focused on reconstruction of structures. Within Pakistan there is considerable variation in the

² There is a strong link with agriculture, non-farm sources of income have been shown in India to be important in helping to redress the variability of seasonal agricultural income sources and to contribute to agricultural input purchase.

agricultural environment across the country. The effect of the flood disaster is quite different from that of previous disasters, such as earthquakes.

23. Following the floods in Bangladesh, seeds and planting material—particularly vegetable seeds and tree seedlings—were provided to smallholders as part of a broad livelihoods approach; these inputs could be used by smallholders and even landless households on their own homestead land. Replenishing small stock, such as chickens, ducks, and goats that could be raised with limited land, was also important, particularly for the poor (Beck 2005).

24. It will be worth remembering in setting priorities in the Pakistan case that buffalo milk and cow milk combined represent over three times the value of wheat production, over six times rice production, and about four times cotton production, and that milk's contribution to the economy is about half again greater than the contribution of these three crops combined. (OCHA 2010). There are obvious implications for livestock feed supply. Milch cattle and draught animals lost will be harder than small stock to replace immediately. A breeding/import strategy would be needed.

25. There are different views expressed in Pakistan about the impact of floods on soil fertility. Silt deposition, some note, may offer short-term fertility benefits in some recipient areas, particularly in the northern part of the country, where the land will recover from the excessive flooding before the next wheat planting season. However, any positive impacts might be more than offset by other negative effects of the floods. A priori, it would appear that sample soil testing would be a step towards assessing not just silt nutrient gains but also nutrient losses from soil erosion or leaching.

26. Reducing vulnerability to reduce the effects of subsequent flooding has been an important objective of some Bank projects and is increasingly a key element in national strategies. In particular, it has been a major focus in the Bangladesh program (IEG 2006a). An example of a project that successfully reduced vulnerability was the Bank-funded China Loess Plateau Project which built check-dams, planted trees, shrubs, and grasses on slopes, controlled gullies, built terraces using contour ditches and stone barriers, and changed land management practices. However, such programs inevitably take time – in this case, it took 8 years to complete (World Bank 2003a).

LAND POLICY AND ADMINISTRATION

27. Initial surveys show that floods have changed the topography in some areas and in some cases resulted in loss of important land rights documents at both household and administration levels. Land rights community resolution processes are likely to be needed. There are well established and tested conflict resolution models, including parcel mapping techniques, within the widely used and adapted Participatory Rural Appraisal techniques that NGOs, such as the Aga Khan Rural Support Program, have some familiarity with. Most Bank-funded land administration projects use some form of locally adapted community consultation to resolve boundary disputes.

28. Experiences from innovative bottom-up approaches to land policy and administration after an emergency have some relevance to Pakistan. For example, the reconstruction of land property rights under the Reconstruction of Aceh Land Administration System Project (RALAS), again a case of seizing an opportunity, was conceived as an innovative, bottom-up process, with a high level of community engagement. In this project, under the so-called Community-Driven Adjudication (CDA) process, each landowner signed a statement of ownership that was subsequently endorsed by the neighbors and the village chief (community mapping was done for about 300,000 parcels). In this way, a community-based agreement was the basic mechanism for adjudicating land rights. This approach was critical in avoiding the delays associated with a top-down approach, under which officials would have been directly responsible for land adjudication.³

AGRARIAN RELATIONS

29. This disaster also may present an opportunity to redress, or to begin to redress, the long-standing land rights issue related to powerful landlords and indebted tenants in areas like Baluchistan, Sindh, and southern Punjab. Depending on the local situation, tenants who were displaced by flood waters may or may not be able to return as their land or homes have been washed away. Some observers have suggested that there is a possibility that landlords may use the opportunity to deny the right of return to tenants with whom they had a dispute. The distribution of compensation to affected people is likely to be complicated by such displacement. This makes it particularly important to have community participation and a strong monitoring system backed by community processes (see the M&E section).

30. In any approach to issues of property rights, while the opportunity offered by an emergency is a factor, the need in an emergency to hold the social fabric together has to be considered. It was a finding of the IEG Haiti Earthquake Note that, after a disaster, rebuilding must ensure that social structures are knit together. “Natural disasters rip apart social cohesiveness. Rebuilding social structures is a large challenge and one that is rarely done well by any institutions, in large part because the character of the initial response makes doing so more difficult” (IEG undated a).

GENDER AND PARTICIPATION

31. Women have often been disadvantaged in emergency situations and this would appear to be a high risk in the case of the Pakistan floods. For example, in the cotton belt of south Punjab and Sindh that has been severely affected, women are the main work force in the cotton fields. They are also a main source of labor in rice transplanting, another crop heavily affected.

³ However, this Indonesia project also had some significant weaknesses including: over-optimistic targets for the first year; failure to anticipate some of the administrative and procedural obstacles; difficulties with coordination of donor and NGO reconstruction efforts; slow issuance of a government waiver on fees and charges; procurement delays; and the requirement that grant funds be on budget and therefore hostage to slow budget approval procedures. This list of weaknesses in the Aceh/Nias experience (and there were more not listed here) might be a useful more generic list of “watch-out-fors” for the Pakistan recovery program.

32. Damage assessments often overlook the gender dimension of vulnerability. The forms being used by the Agriculture Cluster in Pakistan in the preliminary agricultural assessments, at least for the upper basin areas covered so far, do not seem to allow for differential analysis of the impact on women and men (Pakistan Agriculture Cluster, Preliminary Damage Assessment August 2010). It is not known whether the gender dimension is expected to be added in the next round.

33. This disaster may present an opportunity to enhance gender equity in the design of the program of response. For example, in property rights, in the Maharashtra Emergency Earthquake Project advances were made by registering reconstructed houses in the name of both husband and wife (Background paper 2006a). However, there are gender-related social constraints in Pakistan beyond many other country situations evaluated by IEG that have contributed to slow progress on gender in many areas and call for realism.

34. While participatory approaches are inherent in community development interventions, they can still break down in implementation, especially when there is pressure to build structures, as would be the case in Pakistan recovery investment (IEG 2005a). For example, in the Bank's Bangladesh Coastal Embankment Project, which involved significant embankment structures of the nature that may now be needed in Pakistan in some areas, lack of community consultation resulted in public opposition to the alignment of embankments and was a significant factor in implementation delays. Whenever big structures are needed, there is a risk of pressure and haste and less thorough community consultation processes. Often in such situations involving water there can be expected to be gainers and losers among rural households.

Transfers and Credit

35. There may be a longer-term welfare benefit from short-term transfers. Well-targeted transfers, with uniform and transparent rules of engagement, can be effective in the short term in enhancing food security of poor households, particularly when using existing targeting mechanisms and distribution channels. Following the Bangladesh flood of 1998, distribution of wheat through the targeted Vulnerable Group Feeding program was expanded (Beck 2005).

CASH TRANSFERS

36. Survey evidence from the Bangladesh program shows that selection of the most vulnerable rural households through village-level committees successfully targeted the program to the poor (del Ninno and Dorosh 2001). However, it also showed that many poor households increased their debts substantially as a result of the floods. Borrowing from private creditors was a coping strategy for households who lost crops or employment. This strategy was effective in augmenting household access to food and limiting the decline in food consumption.

37. However, many households in Bangladesh carried debts equal to one month's average expenditure for more than a year after the floods had ended. This suggests the need for credit (or cash transfers) to poor households in the aftermath of a flood or other natural disaster, not only to enhance food security in the short run, but to avoid a long-term loss in household welfare (del Ninno, Dorosh, and Smith 2003). A concern is the risk of inflation when supplies do not match

the increase in funds made available for consumption. Agricultural recovery as well as trade policies (see below) influence how supplies respond.

38. It is reported that timely cash support to victims is being planned in Pakistan under the President's Flood Relief directive to the Benazir Income Support Programme and the national registration agency (NADRA). In surveys in natural hazard situations, cash has been much preferred by beneficiaries over in-kind support, although obviously beneficiary preference should not be the only criteria for choice of instrument (IEG 2006a). During the recovery process, getting cash support to victims quickly increases people's sense of safety and security. Such assistance has been a prominent sign of the government's presence and support in a time of acute need.

TRANSFER MODALITIES

39. A range of transfer modalities has been used in Bank-supported projects. Between 1984 and 2005, the Bank funded over US\$850 million in cash assistance (cash transfer, cash for work, and similar programs) in the context of 11 projects. In-kind credit was provided in the China earthquake case (IEG 1996). Cash for work in Burkina Faso was not successful, but partly due to late design of implementation modalities (World Bank 2001). Cash transfer to earthquake victims in Turkey was mainly in the form of rent support, death compensation, and business compensation – and was successful (IEG 2005). Housing subsidies were offered in the Columbia Earthquake Recovery Project (World Bank 2003b). Cash for work was used in the Papua New Guinea Emergency El Nino Drought Project (World Bank 2003c).

40. Of the closed projects in the IEG Hazards of Nature evaluation database that provided cash transfers of some type, four out of six were rated satisfactory. Those rated unsatisfactory accounted for less than one percent of the funds allocated. When promptly provided, cash support enabled people to survive and get local economies moving again but success seems to be associated with existing institutions that have established systems for administering cash transfers. Some have used volunteers as well as NGOs (for example, Turkey) for distribution. As noted above, in Bangladesh after the 1998 floods, wheat was successfully distributed through the greatly expanded Vulnerable Group Feeding Program (del Ninno and Dorosh 2001).

41. One model worth looking at for transfer program design is the India Mahatma Gandhi National Rural Employment Guarantee Act that supports a scheme providing a legal guarantee for 100 days of employment per year at the minimum wage. It targets work towards a specific set of rural development activities and is generally reported to be working well. It includes a process of local participation in the selection of local investment and public works that are to be supported under the program. Relevant to M&E for such substantial transfer programs, the managing ministry has developed a network of institutions, universities and civil society

organizations for concurrent monitoring, appraisal, and diagnosis of constraints with findings posted on the website (nrega.nic.in/netrega/home.aspx and the linked PIN site).⁴

42. In the category of cash for work, evidence from the Asian Development Bank-supported Bangladesh Flood Rehabilitation program suggests that vulnerable groups can be assisted through a special focus on getting them priority access to reconstruction labor opportunities. (ADB 2009, 2008)

43. Micro-finance institutions can play a role in the short term in assisting affected people—for example, debt restructuring or provision of credit for seed (Pitt 2000). Emergency loan products can include consumer loans, housing repair, and working capital. Pakistan has a reasonably good network of microfinance institutions, some financed by the World Bank and Asian Development Bank.⁵ They should have an emergency contingency fund to enable rapid response. Such a fund enables clients to re-establish income streams quickly and buy food and shelter while reducing the risk of delinquency (Goldberg and Varda 2008).

44. Microfinance institutions can also be useful in local information flow, which is very important in a disaster recovery. Local branches may have good knowledge of the location and the impact on households. However, references warn that they should not be pushed to take on the role of disaster risk management agencies.

Trade Policy

45. Promoting private sector grain imports has the potential to stabilize market prices at import parity levels without any fiscal burden on government. For example, in Bangladesh, where this was done after the 1998 floods, and with limits on government sales of subsidized rice, the private sector imported over 200,000 tons per month for 8 months, that is, over 1.5 million tons, alongside food aid of 1 million tons of wheat (Dorosh 2001).

46. Pakistan wheat is near import parity price. Whether the floods will have a major effect on the wheat market is unclear at this point. August data suggest losses were relatively small on a national scale. However, there would still be major issues of food security for those who lack access and purchasing power. The quite high percentage of rural off-farm income may play a role here.

47. More open tariff and trade policy can influence the nature of recovery, including the technology choices households make. For example, in the Bangladesh Flood Action Plan, tariff

⁴ Problems with this generally quite successful program include: lack of guidelines, including translated guidelines, in the field; lack of appreciation among local officials that the program is now demand-driven; difficulties in holding implementing agencies accountable; and lack of awareness of rights among workers;

⁵ The Kushali Bank is one micro-finance bank supported by ADB providing credit at local levels. As an indirect mechanism on a substantial scale, the Pakistan Poverty Alleviation Fund has absorbed US\$670 million in Bank financing with outreach through many NGOs for microfinance, local infrastructure and social service delivery. It covers over half the country.

reduction on power tillers enabled substitution of these in plowing following heavy loss of livestock (del Ninno, Dorosh, and Smith 2003). But there is also the question of whether small farmers can afford tractors and whether hand tractors that suit small farmers are sufficiently widely acceptable to offset the loss of draught animals. There may be other tariff change opportunities beyond farm equipment that would support reconstruction and recovery, for example agricultural processing equipment.

World Bank Financing and Implementation

48. The World Bank has funded natural hazard projects through both reallocation of funds from on-going projects and through new funding. Each has been found to have a role but there are advantages and disadvantages with reallocation. Between 1984 and 2004, the Bank funded about \$3 billion for natural disasters through reallocation and about \$9 billion through Emergency Recovery Loans. By definition, reallocation of existing project resources is not additional and, unless quickly replenished, diverts funds from their original purpose. This may have development costs, suggesting that possible longer-term development impact needs to be considered when reallocation is under discussion.

49. However, reallocation does fill an important niche in the Bank's ability to respond rapidly and, in large emergency situations, for example Bangladesh or Mozambique floods, the scale of the disaster was such that the original development purposes were probably unattainable for some time anyway, although there is no evaluative evidence on that particular question. For example, reallocation proved a useful stop-gap in the Indonesia tsunami emergency. But in that case the funding re-allocated was quickly replaced by the emergency project funds that followed. The reallocation provided immediate access to funds and some breathing room for careful project design (Indonesia Community Recovery ICR World Bank 2010, IEG Hazards of Nature 2006 and one of the unpublished background papers to that study). In the case of the Mozambique Flood Program, projects in several sectors were entirely restructured to address the flooding and the funds redirected into the single 2000 Flood Emergency Recovery Project (IEG Note on Disasters in Mozambique undated).⁶ In this case, there is no evidence that the funds were restored later to complete the original purpose. The projects were simply closed and replaced by the new emergency project.

50. Projects providing budget support from the Bank have not provided a quicker transfer of resources in natural hazard situations. They took on average 7 months to become effective, no quicker than Emergency Reconstruction Loans (IEG 2006a).

DONOR COORDINATION

51. Donor coordination experience in natural hazard projects suggests project performance can be challenging when there are more than three or four donors and if each tries to retain a separate role. Clearly, donor coordination has costs as well as benefits and there appears to be a rising marginal cost to having many partners (IEG 2006a). As there will be far more than four donors involved in the current flood recovery, obviously some modality of coordination across

⁶ There were a number of performance weaknesses in that project, partly related to institutional capacity.

the whole program would be needed if there is to be packaging of sub-groups of donor programs within the whole for the purposes of simplifying management.⁷

52. There have been temptations with weak government capacity to bypass existing structures and systems and set up parallel ones. However, the Community-Driven Development experience in Nepal found that this presented its own set of problems (IEG 2005a).

53. Information has proven to be an important aspect of coordination. For example, there is evidence in the Mozambique flood case that donor coordination could have been improved if donors had been more open in sharing information including damage assessments and macroeconomic evaluations (IEG undated b).

SHORT VERSUS LONG TERM

54. A number of emergency projects and programs have taken the opportunity to improve upon the prior physical as well as organizational structures and systems or processes (for Bangladesh, Beck 2005, for India, IEG 2006b). Clearly there are tradeoffs here. On the one hand, there is a premium on urgency, which may often be best met by simply replacing what was lost. On the other hand, there are opportunities to build back better, which may take longer but have greater longer-term development impact. IEG's evaluation on hazards of nature (2006a) suggests in general that these opportunities should be seized. There are two areas where this may be relevant to Pakistan, the area of land policy and the area of irrigation area design.

55. First, while the Pakistan situation has a number of unique characteristics that somewhat limit the applicability of other emergency program experiences, the response to the floods presents an opportunity for government to consider reforms in the existing land rights system in certain parts of the country, linked to design of areas under irrigation. The success of any reform of land policy would depend, among other things, on addressing the relationship between landowners and the *patwari*, the local revenue official who maintains land records at the village level (often the only records), and the land and water rights nexus around landlords and tenants. Political will at the top and widespread community participation would be essential.

56. Second, in irrigated areas where physical structures have been destroyed, it may prove cheaper to introduce system and structure design changes from the beginning of rehabilitation, rather than come back some years later to modify replaced structures towards more productive and efficient demand-based systems. Demand-based structures and processes are more suited to diversified and intensified agricultural production. This irrigation systems choice is a complex question with many social and political ramifications and, if changes were to be made, would call for intensive consultations at the level of water users associations. However, the response to the floods would seem to be an opportunity to hold this debate so that the choices made on the

⁷ Coordination with the World Food Program, given its poverty focus, long-established presence and many NGO partners, is likely to be particularly important.

ground for both the short and long term are explicit rather than made by default.⁸ In any case, for the planning of irrigation rehabilitation, intensive consultation with water users and other community groups will be essential. Opening up the options of shifts in irrigation area design and related issues of land and water rights in any particular locality would be a matter of probing the local perception boundaries of these two issues alongside the leverage of the proposed public investment contribution. There is no evaluative evidence of a case of quite the same type and magnitude tackling these two issues in disaster recovery but, as discussed earlier, in both Bangladesh and the Maharashtra state of India, opportunities to change approaches in infrastructure design and property rights were seized.

Monitoring and Evaluation

57. In the case of Pakistan, given the scale of the challenge and uncertainty, course correction will be inevitable and necessary, more so than in the more stable situation of a traditional investment program. Strong M&E with a results focus, and in particular monitoring that is independent and credible, can improve confidence of beneficiaries in government and of donors. Some tested M&E models exist within Pakistan, for example the Aga Khan Rural Support Program (IEG 2002a).⁹

58. IEG has generally observed that emergency projects tend to monitor the units of outputs rehabilitated or built and often neglect to assess the extent to which households, both men and women, have regained their living standards and assets (a weakness evident in the Indonesia Community Recovery Project ICR but also in many others).

59. In view of the risk of funds misdirection, participatory community monitoring, such as that used in Indonesia, may be valuable. In the Indonesia KDP and Tsunami Emergency project, some progress on corruption was made by: posting planned works and costs on village notice boards; auditing neighboring villages by village committees; having communities physically sign off on contractor quantities delivered; putting in place a strong and anonymous complaints mechanism with standards for response time;¹⁰ and funding for reputable journalists and NGOs to monitor expenditure and construction.¹¹ This gave some degree of triangulation. All of this did not stop corruption, but progress was made.

60. In the Sri Lanka Post-Tsunami program, three sets of accountability mechanisms were set up, backed by capacity building (World Bank 2010c):

⁸ In this respect, it is worth noting that a month prior to the floods the Punjab CM hosted a meeting of political leaders, government officials, the private sector and consultants to initiate a shift on one major canal command from a supply driven to a demand driven approach (personal communication).

⁹ The ongoing needs assessments could offer one set of baseline data.

¹⁰ A lesson in the IEG note on the Haiti Earthquake is that grievance procedures need to be in place from the outset.

¹¹ There are dangers to be watched for in community participation and supervision in monitoring. For example, in the India 1993 Maharashtra Earthquake Reconstruction there were cases of homeowners whose houses were to be reconstructed trying to extract bribes from contractors before approving the proposed work (background paper to IEG 2006b)

- Participatory mechanisms to identify beneficiaries, to implement cash grants, and to apply a home-owner-driven approach through the establishment of community-based housing societies, and a grievance and redress system covering the different tiers of government. Belatedly, information, education, and communication activities were added to this.
- An arms-length mechanism using various forms of verification and third party monitoring to verify beneficiary needs and to mitigate concerns about weak local government. This included housing eligibility and verification surveys.
- Administrative mechanisms using traditional project measures to manage fiduciary risks, including internal auditors.

61. Key lessons drawn from the Sri Lanka program included: buttressing existing organizations, even if weak; using short-term emergency as well as longer-term project arrangements; the importance of a grievance mechanism; emphasis on communicating plans widely; a comprehensive M&E system with timely information from multiple sources; common donor standards and procedures; and a focus on vulnerable groups, such as female-headed households and seniors.

Conclusion

62. The global and South Asia lessons of disaster experience, while not specific for particular regions in Pakistan, offer some broad lessons for rural recovery. They suggest a number of options for the design and implementation of the program for restoring rural livelihoods.

63. *Governance of the reconstruction:* The lack of elected local governments would need to be taken into account, accommodating local voice and community participation at that level. Reduced or inadequate institutional capacity needs to be quickly identified and addressed.

64. Sub-project readiness ought not to over-ride a set of carefully planned, criteria-based, priorities simply in order to get quicker implementation. There is a need to focus not simply on rebuilding infrastructure but on institutional and process activities aimed at integrated flood risk management with greater attention across all relevant sectors to preparedness planning, early warning, flood proofing (as opposed to flood prevention), watershed management, and on-farm technology changes.

65. *Restoration of livelihoods:* Non-farm income generation opportunities may now be even more important, with implications for training and credit programs. In responding to the current disaster, there may be unique opportunities to start to tackle two long-standing issues that are closely linked—land policy and irrigation system redesign.

66. There are likely to be a number of location-specific on-farm coping strategies in the form of husbandry adjustments that farmers should be supported in adopting by the extension and research agencies and by NGOs. Milk production recovery will be particularly important, since it represents about half again the contribution to the economy than wheat, cotton and rice combined. Women have been found to be particularly vulnerable in disasters and their needs should be covered during damage assessments. Means should be developed for women's needs to be identified and addressed in the design of recovery activities.

67. *Transfers and credit:* Targeted transfers, whether in cash or in some other form, are not only useful as short-term relief, but they should have a positive impact on the longer-term resilience of the poor. However, they need to be managed by experienced institutions. Credit institutions may be able to play an important role but their financial sustainability should not be threatened.

68. *Trade:* The promotion of private grain imports may help stabilize market prices while reducing the fiscal burden. Tariff policies warrant review to assess what changes might be pro-recovery.

69. *External financing:* Restructuring of existing loans for the emergency may have a role, but within limits. There is value in specific loans specifically tailored to confront disasters and with a longer term perspective. Coordination needs to be carefully planned by both government and donors to ensure greater efficiency in the mobilization and use of funds.

70. *M&E:* Establishing M&E systems will be essential to make course corrections, to convince donors that funds are being well spent, and to give beneficiaries confidence in the government's support. Results need to be measured in terms of welfare outcomes, not simply in terms of the number of structures rebuilt. Community participation in M&E at the village level and triangulation from a number of sources will be important.

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