

**Validation Report**  
July 2017

# Pakistan: Flood Emergency Reconstruction Project

Reference Number: PVR - 498  
Project Number: 44372-013  
Loan Numbers: 2742 and 2743

Independent  
**Evaluation**  ADB

*Raising development impact through evaluation*

## ABBREVIATIONS

ADB	–	Asian Development Bank
AADT	–	annual average daily traffic
CDTA	–	capacity development technical assistance
DMF	–	design and monitoring framework
DNA	–	damage and needs assessment
EAL	–	emergency assistance loan
EMP	–	environmental management plan
ha	–	hectare
IDS	–	Irrigation Department of Sindh
km	–	kilometer
m <sup>3</sup>	–	cubic meter
NHA	–	National Highway Authority
O&M	–	operation and maintenance
PCR	–	project completion report
PMU	–	project management unit
RRP	–	report and recommendation of the President
WSDS	–	Works and Services Department of Sindh

## NOTE

In this report, “\$” refers to US dollars.

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## PROJECT BASIC DATA

Project Number	44372-013	PCR Circulation Date	21 Sep 2016	
Loan Numbers	2742 and 2743	PCR Validation Date	Jul 2017	
Project Name	Flood Emergency Reconstruction Project			
Sector and subsector	Transport	Road transport (nonurban)		
Strategic Agendas	Environment sustainable growth Inclusive economic growth			
Safeguard categories	Environment		B	
	Involuntary Resettlement		A	
	Indigenous Peoples		C	
Country	Pakistan		Approved (\$ million)	Actual (\$ million)
ADB Financing (\$ million)	ADF: 50.00	Total Project Costs	722.20	571.51
	OCR: 600.00	Loan		
		2742	600.00	458.51
		2743	50.00	40.98
		(SDR equivalent, million)	(31.70)	(27.06)
		Borrower	72.20	72.02
	Beneficiaries	0.00	0.00	
	Others	0.00	0.00	
Cofinancier		Total Cofinancing	0.00	0.00
Approval Date	30 Mar 2011	Effectiveness Date	30 days after loan agreement	26 May 2011 (for both loans)
Signing Date	14 Apr 2011	Closing Date	30 Sep 2014 30 Sep 2014	8 Aug 2016 15 Apr 2015
Project Officer	J. Ning	Location ADB headquarters	From Jul 2011	To Apr 2015
IED Review Director Team Leader	N. Subramaniam, IESP S. Palle Venkata, Evaluation Specialist, IETC*			

ADB = Asian Development Bank, ADF = Asian Development Fund, IED = Independent Evaluation Department, IESP = Sector and Project Division, IETC = Thematic and Country Division, OCR = ordinary capital resources, PCR = project completion report.

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## I. PROJECT DESCRIPTION

### A. Rationale

1. Pakistan experienced one of its worst floods in July 2010, which had a devastating effect on its economy. Transport and irrigation infrastructure were severely damaged in 80 districts spread across four provinces. A damage and needs assessment (DNA) report was prepared by

the Asian Development Bank (ADB) and the World Bank in coordination with federal and provincial government agencies and other development partners (RRP, para. 2).<sup>1</sup>

2. The government's response to the floods followed three phases. The first phase was rescue and relief handled by national agencies, coordinated by the National Disaster Management Authority, with quick mobilization of external assistance from the United Nations and other agencies. The second phase was early recovery, which concentrated on speedy and temporary restoration of services, temporary housing, and restoration of agriculture and basic livelihoods. The third phase was permanent reconstruction works and rehabilitation of priority physical assets, which required substantial investments and longer execution times that were better suited for assistance from multilateral development banks.

3. The government did not take up funding from ADB for the initial two phases since priority were given to relief and recovery that emphasized maximizing the use of grant money. The province of Balochistan had the least damages while the Sindh province was the worst affected compared to others. Reconstruction work in the provinces of Punjab and Khyber Pakhtunkhwa was being managed by several donors who were present in these provinces before the floods, which made approval and channeling of funds easier. Sindh province was noted to be lagging in reconstruction efforts due to the large-scale damage and the corresponding heavy financial burden it suffered.

4. The emergency was very much applicable in the third phase, since restoration of critical priority infrastructure was an immediate need. Thus, the government requested for an emergency assistance loan (EAL) from ADB in February 2011 with a 3-year implementation period aimed at restoring damaged infrastructure in the Sindh province, following the priorities identified in the DNA report.<sup>2</sup> Normal implementation period for an EAL is up to 2 years for natural disasters and can be extended for two additional years when the damages are extreme.<sup>3</sup> The report and recommendation of the President (RRP) noted that the proposed 3-year implementation period was reasonable given the extreme nature of the flood, which was described as "one of the largest in world history." It also noted that the project was aligned with the flood reconstruction plan prepared by the Pakistan Planning Commission and focused on the transitional phase of emergency response for the rehabilitation and reconstruction of priority infrastructure.

## **B. Expected Impacts, Outcomes, and Outputs**

5. The expected impact of the project as stated in the design and monitoring framework (DMF) was the post-flood economic and social recovery in project areas.

6. Based on the DMF, the expected outcome of the project was putting in place critical physical infrastructure required for the restoration of livelihoods and access to markets, and these should be built back to their original standards or better. The target performance indicators included restoration of employment to preflood levels by the end of 2014 (4.3 million for men and 1.7 million for women);<sup>4</sup> restoration of preflood irrigation systems with a water carrying capacity

<sup>1</sup> ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loans and Technical Assistance Grant to the Islamic Republic of Pakistan: Flood Emergency Reconstruction Project*. Manila.

<sup>2</sup> ADB and World Bank. 2010. *Pakistan Flood 2010: Preliminary Damage and Needs Assessment*. Islamabad.

<sup>3</sup> ADB. 2004. *Disaster and Emergency Assistance. Operations Manual*. Section D7. Manila.

<sup>4</sup> These numbers correspond to the data from Pakistan Bureau of Statistics Labor Force Survey: 2010–2011. The baseline preflood employment data in the DMF was initially 9.2 million for men and 3.7 million for women, which was incorrect, and was later corrected.

of 59 million cubic meters (m<sup>3</sup>) by the end of 2014;<sup>5</sup> and improved capacity of implementing and executing agencies in fiduciary management, procurement, safeguard compliance, and in mainstreaming gender concerns.

7. The project had three output components. The first was the repair, rehabilitation, and reconstruction of 793 kilometers (km) of partially or completely damaged national highways; and 800 km of provincial roads in Sindh province.<sup>6</sup> The scope of the national highways was finally reduced to 424 km due to the (i) increase in cost estimates after the completion of detailed designs, (ii) higher-than-expected bid prices, (iii) available loan funds, and (iv) time constraints. The second component was improving 1.5 million hectares (ha) of flood-affected agricultural land by restoring, strengthening, and resectioning various flood protection embankments, and rehabilitating main canals, distributaries, minor canals, and drainage infrastructure in Sindh province.<sup>7</sup> The last component was on support services for the implementing agencies, provided by a capacity development technical assistance (CDTA), to ensure procurement, safeguard compliance, and implementation of the gender action framework, which required that at least 15% of water structures have gender features in their design and implementation.

### **C. Provision of Inputs**

8. ADB approved (i) a loan of \$600 million from its ordinary capital resources, and (ii) another loan of SDR31.7 million (equivalent to \$50 million) from Asian Development Fund resources on 30 March 2011. Both loans became effective on 26 May 2011. The Government of Pakistan was to contribute \$72 million from its own resources to cover taxes, duties, and financing charges and to finance the land acquisition and resettlement costs (RRP, para. 17). Both loans were expected to close on 30 September 2014. The first loan was extended once to close on 25 May 2015, but eventually closed on 8 August 2016 (a delay of 22 months), whereas the second one closed on 15 April 2015, a delay of 6.5 months.

9. The actual cost at completion was \$571.5 compared to \$722.0 million estimated at appraisal.<sup>8</sup> The national highways component was estimated to cost \$272.6 million with ADB share of \$245.3 million and the government's share of \$27.3 million. The actual loan was, however, \$207.1 million and the amount financed by the government \$31.7 million. Given the available loan funds and the increased cost estimates after the completion of detailed designs, the project scope had to be reduced. Even with the reduced scope, contracts could not be procured for all the prioritized roads and the unused loan amount (\$77.1 million) was canceled.

10. The actual cost of the provincial roads component was \$124 million compared to the \$125.3 million estimated at appraisal. ADB financed \$111.5 million and the government contributed \$12.5 million. The actual cost for the irrigation component was \$230 million, of which \$164.9 million was financed from the ordinary capital resources loan, \$40.4 million from the Asian Development Fund loan, and \$24.7 million by the government.

11. The three components were expected to require 2,893 person-months of consultants for design, design review, and construction supervision. The actual consultant inputs for construction

<sup>5</sup> The midterm review had noted that the baseline figure of 59 million m<sup>3</sup> is incorrect since it is too low compared to the water carrying capacity of the canals being rehabilitated (40 billion m<sup>3</sup>).

<sup>6</sup> The target output for the national highways component was revised to 425 km, along with five bridges, due to higher cost estimates following detailed surveys and design, high bid prices, and budget and time constraints.

<sup>7</sup> Per the RRP (para. 8), transport and irrigation combined are the largest items in terms of needs (close to \$3.3 billion).

<sup>8</sup> ADB. 2016. *Completion Report: Flood Emergency Reconstruction Project in Pakistan*. Manila.

supervision were 2,449 person-months while design review required 48 person-months. The project completion report (PCR) did not indicate the number of person-months employed for the preparation of detailed designs. The consultants recruited for the irrigation component provided 243 person-months of inputs. The design of provincial roads used 79 person-months and construction supervision used 414 person-months.

12. The project was categorized as A for involuntary resettlement, B for environment, and C for indigenous peoples (RRP, para. 34) following ADB Safeguard Policy Statement (2009). The PCR noted that the establishment of environment and social units in the project management units (PMUs) ensured proper planning and implementation of social and environment safeguards (PCR, para. 53). Subprojects were assessed for environmental impacts before executing them. Negative environmental impacts and mitigation measures were identified, and environmental management plans (EMPs) prepared for each subproject. An EMP was prepared for each works contract and its implementation was regularly monitored and reported.

13. A \$4 million CDTA was provided on a grant basis from the ADB technical assistance fund (TASF-IV) to help implementing agencies carry out tasks, such as bid document preparation, contract management, and monitoring, reporting and evaluation (PCR, paras 26, 27). It also supported the implementing and executing agencies by helping them comply with environmental and social safeguards and helped them develop, execute, and monitor resettlement, environmental, and gender plans. Self-evaluation rated the CDTA *successful*.

#### **D. Implementation Arrangements**

14. At appraisal, the National Highway Authority (NHA) and the Sindh Planning and Development Department were identified as the project executing agencies. The implementing agencies were (i) NHA for the national highways component, (ii) Works and Services Department Sindh (WSDS) for the provincial roads component, and (iii) Irrigation Department Sindh (IDS) for the irrigation component. A special committee at each implementing agency was to approve subprojects from the list of projects provided in the project administration manual after extensive review and third-party validation of technical and economic viability and adherence to safeguards (RRP, para. 19). Arrangements would also include hiring of independent consultants to help implementing agencies in fiduciary oversight and grievance redress mechanisms for people and contractors; and hiring of project management consultants to oversee the preparation of designs, bidding documents, and evaluation of proposals, among others.

15. Implementation arrangements were adequate, according to the PCR. Each of the implementing agencies—NHA, IDS, and WSDS—established dedicated PMUs. The technical and management capacity of the PMUs was strengthened by expert consultants hired under the CDTA, which helped in the timely implementation of components by the IDS and WSDS. A grievance redress mechanism established separately for each of the three components provided a structured process for addressing the grievances of people and vulnerable groups.

16. The borrower's compliance with covenants was satisfactory with all 62 of the 63 loan covenants complied with, three of them partly. Compliance to one covenant requiring post-completion audit was not yet known since the loan account was not yet closed when the PCR was prepared. Another covenant relating to the disclosure of project information on a website was partially complied with since the websites did not show the financial statements. No loan covenant was modified, suspended, or waived.

## II. EVALUATION OF PERFORMANCE AND RATINGS

### A. Relevance of Design and Formulation

17. The PCR rated the project *relevant* as it met the government's priority needs of reconstructing flood-damaged infrastructure. The project was also consistent with ADB disaster and emergency assistance policy, which calls for immediate mitigation of losses to priority assets and productive capacity. The PCR also noted that the project design was appropriate to serving the purpose of reconstructing flood-damaged infrastructure.

18. The design followed the priorities identified in the DNA and the flood reconstruction plan prepared by the Pakistan Planning commission. Since the damage assessment was done when the infrastructure was still submerged, detailed designs for the works were required during the implementation phase. Design consultants were recruited using quality and cost-based selection method. To speed up this process, the response time for the bids was shortened. The procurement of works contracts was still a lengthy process and the ADB financed reconstruction initiatives realized almost 2 years after the floods. However, up to 30% of the loan amount was used for retroactive financing of the expenditure incurred by the government on urgent restoration work.

19. The reduced scope in the reconstruction work on national highways was justified since cost estimates increased after the detailed designs were completed. Due to the long procurement process, not all contracts could be procured and the unutilized loan proceeds had to be canceled. This indicates that procurement processing times need to be shorter for emergency projects. The DMF indicated the project impact as post-flood economic and social recovery, but did not specify indicators for social recovery, such as the restoration of livelihoods and access to markets. There was much overlap between outcome and output indicators. However, the DMF specified timelines for the achievement of all target indicators and provided baseline data. This validation finds this noteworthy as EALs are usually prepared within a short time and generally lack these data. Overall, this validation agrees with the PCR that the project design and formulation can overall be assessed *relevant*.

### B. Effectiveness in Achieving Project Outcomes and Outputs

20. The PCR rated the project *effective* overall in achieving its outputs and outcomes, although the national highways component was *less than effective* in achieving outputs. A total of 344 km of national highways were rehabilitated and reconstructed, which is 43% of the original target of 793 km, but this is already 81% of the revised target of 424 km (PCR, para. 7). Nevertheless, the impact indicator annual average daily traffic (AADT) grew by 24% by the end of 2015, exceeding the targeted 10% increase from the AADT in 2010 (145,000 vehicles). The PCR claimed that travel time and vehicle operating costs have declined on the rebuilt road sections, but it did not provide any data. It also mentioned that the highway sections and bridges were rebuilt to higher specifications to provide resilience against future flooding. However, it did not elaborate if design standards and specifications were verified by road safety audit and if the firm recruited to review the designs prepared by design consultants had any findings.

21. The PCR assessed both the Sindh provincial roads and irrigation components *highly effective* in achieving the stated project's outcomes. It noted that 920 km of roads were repaired or reconstructed, which was 15% higher than the appraisal target. It also noted that the truck traffic increased by 141% from the time of design (though the source of this data is not stated). Under the irrigation component, 103 flood embankments measuring 1,453 km were rehabilitated,

reconstructed, and strengthened compared to the target of 81 flood embankments measuring 1,000 km. Canal carrying capacity of 41.2 billion m<sup>3</sup> was restored. However, there is no target to compare this with as there was an error in setting the target volume of 59 million m<sup>3</sup>, which is lower by three orders of magnitude. The impact indicator of restoring agricultural production to preflood levels was overall achieved. By the end of 2015, wheat output was 3.0 million tons compared to 3.7 during 2009–2010 while cotton output was lower at 2.8 million tons compared to 4.2 in the base year. However, sugarcane output was at 17.6 million tons compared to 13.5 at the production baseline and rice output was 2.45 million tons compared to 2.42 in the base year.

22. The PCR also noted that the environmental and social units established in the PMUs ensured proper planning and implementation of social and environmental safeguards while simultaneously increasing PMUs' capacity for the same. EMPs were prepared for each subproject and their implementation was regularly monitored and reported.

23. The support services produced by the CDTA successfully helped implement the gender action framework and strengthened capacity in both implementing and executing agencies in fiduciary management, procurement, and safeguard compliance. More than the targeted number of irrigation subprojects incorporated gender features—such as washing bays and drinking water schemes—in their design.

24. Although the achievement of output under the national highways component fell short of its target, considering the achievement of outputs and outcomes in all other project components, this validation rates the project *effective*.

### **C. Efficiency of Resource Use**

25. The PCR rated the overall project *efficient* and noted that the irrigation and provincial roads components were relatively more efficient than the national highways component. Since the project scope had to be reduced due to higher cost estimates during implementation and to delays in procurement processes, it rated the highways component *less than efficient*. This validation agrees with this assessment. The midterm review mission noted that, in general, delays in procurement in the national highways component were due to (i) deficient bid evaluation reports, requiring multiple submissions to ADB for corrections; (ii) NHA's time-consuming, multitiered internal approval processes; (iii) inadequate staffing, capacity, and experience of NHA's procurement staff; and (iv) ADB lengthy internal processes. It also pointed out that in the case of five contracts for international competitive bidding, it took more than 6 months from the date of advertisement to ADB concurrence on NHA's bid evaluation report, which is quite long for an emergency project.

26. The PCR considered the Sindh irrigation and roads component *highly efficient*. It noted that the unit costs of civil works contracts for the roads component met industry standards. The output exceeded the target by 15% and was completed within the planned implementation time using less than the originally planned loan resources. In the irrigation component, rehabilitation and strengthening of flood embankments, canals, and drains exceeded the targets and was achieved at 99% of the estimated costs. Flood protection was provided for 2.2 million ha as compared to the target of 1.5 million ha. The PCR computed the economic internal rate of return for the irrigation component as 23.6% (PCR, Appendix 10). However, it provided limited justification for the costs and benefits assumed in the calculations. For example, the operation and maintenance (O&M) costs were the same as the investment costs, and flood protection benefits for each year were assumed to be 75% of the losses seen in the current floods. It did not elaborate how the loss probabilities were obtained.



27. Based on the cost efficiencies noted in the Sindh irrigation and roads components, this validation assesses the project *efficient* in terms of efficiency of resource use.

#### **D. Preliminary Assessment of Sustainability**

28. The PCR rated the project *likely sustainable* since the O&M requirements were identified and planned for in the annual maintenance budgets of the NHA and in the Sindh, provincial government. For national highways, the PCR mentioned that the NHA finances the annual maintenance plan from a road maintenance account funded mainly by tolls paid by the highway users. However, it did not provide data on the amount of toll revenue collected as compared to the O&M needs and, hence, it is not clear if maintenance funds from toll revenue will be sufficient to carry out adequate road maintenance. It did not discuss the government's future strategy in terms of preventive, routine maintenance, periodic repair, and asset preservation of the constructed road through controls on axle loads.

29. For the irrigation infrastructure and provincial roads, the PCR noted that funding for the O&M requirements has been estimated and reflected in the provincial government's annual budget.

30. Overall, given the government's commitment for allocating budgets for O&M and given that the infrastructure has been built to higher standards aimed at greater resilience to future disaster events (if the quality- and cost-based selection bidding process covered a higher resilience specification and costs), this validation assesses the project *likely sustainable*.

### **III. OTHER PERFORMANCE ASSESSMENTS**

#### **A. Preliminary Assessment of Development Impact**

31. The DMF specified the project impact as the economic and social recovery to preflood levels or higher. The target indicators were (i) AADT flow on national roads that were reconstructed and rehabilitated after the floods is 10% higher compared to the AADT of 145,000 vehicles in 2010; and (ii) by the end of 2015, the production of major crops in Sindh equals or exceeds the preflood levels during 2009–2010. Wheat output during 2009–2010 was 3.7 metric tons, cotton was 4.27 metric tons, sugarcane was 13.5 metric tons, and rice was 2.42 metric tons. Citing the increases in traffic volumes and in agricultural outputs, the PCR considered the project's overall impact positive.

32. Overall, this validation assesses the development impact of the project *satisfactory* based on the (i) social and economic recovery through better infrastructure; and (ii) institutional impact in the form of strengthened capacity of both implementing and executing agencies in fiduciary management, procurement, and safeguard compliance due to the technical assistance.

#### **B. Performance of the Borrower and Executing Agency**

33. The PCR assessed the performance of the borrower *satisfactory*, citing the timely way it provided project services and complied with all its obligations under the loan agreement. The PCR noted that the performance of NHA was only partly satisfactory because it did not use speedy processes in procurement and contract awards required in an emergency project, although it managed the land acquisition and resettlement plan efficiently. It also noted that the NHA made one senior staff member in each province responsible for all works contracts regardless of the financing sources, effectively reducing the PMU's control over the project. The PCR considered

the performance of both implementing and executing agencies in Sindh highly satisfactory since they executed the irrigation and provincial roads components as envisaged and complied with ADB guidelines, including environmental and social safeguards.

34. This validation holds a similar view as the PCR in rating the borrower and executing agency *satisfactory*. Of the total 63 loan covenants, 58 have been fully complied with and four covenants partly complied with. One loan covenant on post-completion audit was not done yet at the time of PCR preparation. Safeguard and fiduciary requirements were complied with, though some delays were noted in providing the counterpart funding.

### **C. Performance of the Asian Development Bank and Co-financiers**

35. This validation concurs with the PCR rating of *satisfactory* for the overall performance of ADB. It supported the project in all aspects, including helping in the procurement, contract management, and compliance with environmental and social safeguards. Through the CDTA, it trained the project staff in procurement, financial management, and disbursement procedures. ADB conducted 24 field missions that included 20 loan review missions, a midterm review mission, and a project completion review mission. The resident mission staff facilitated the implementation process and made sure safeguards were complied with. ADB could have, however, speeded up its processes in the case of the highways component to suit the emergency nature of the loan.

### **D. Others**

36. ADB retroactively financed the works undertaken by the NHA to immediately restore traffic. However, slow procurement and delay in contract awards reduced the scope of reconstruction works for the national highways. Loan proceeds were underutilized since the contracts could not be procured for all the prioritized roads, and the unused loan amount had to be canceled. Recruitment of the project management consultant under quality and cost-based selection method took 23 months even with a reduced bidder response time (PCR, para. 32). Neither ADB nor NHA could streamline their standard procedures for faster bid approvals.

37. There were some delays in providing counterpart funding by NHA, IDS, and WSDS. However, this did not affect the project's performance since the counterpart funding accounted for only 10% of the works contracts' costs (PCR, para. 25).

## **IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS**

### **A. Overall Assessment and Ratings**

38. This validation assessed the project *successful* as did the PCR. It assessed the project *relevant* as it responded to the need for rehabilitation and reconstruction of flood-damaged infrastructure, adopted a build back better approach, and provided the necessary capacity strengthening required by the executing and implementing agencies. It rated the project *effective* considering that most of the outputs and outcomes targeted in the DMF were achieved. The PCR rated the project overall *efficient*. While delays in procurement and contract awards were noted in the national highways component, the irrigation and provincial road components were implemented efficiently. This validation rated the project *likely sustainable* since the government made budget allocations for the maintenance of assets and rebuilt the infrastructure to better standards, thus, increasing resilience to future disasters.

### Overall Ratings

Validation Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Relevant	Relevant	
Effectiveness	Effective	Effective	
Efficiency	Efficient	Efficient	
Sustainability	Likely sustainable	Likely sustainable	
<b>Overall assessment</b>	<b>Successful</b>	<b>Successful</b>	
Preliminary assessment of impact	Positive	Satisfactory	
Borrower and executing agency	Satisfactory	Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Quality of PCR		Satisfactory	

ADB = Asian Development Bank, IED = Independent Evaluation Department, PCR = project completion report.

Note: From May 2012, IED views the PCR rating terminology of "partly" or "less" as equivalent to "less than" and uses this terminology for its own rating categories to improve clarity.

Source: ADB Independent Evaluation Department.

## B. Lessons

39. This validation finds the following lessons identified in the PCR appropriate. Success in the case of Sindh irrigation and provincial roads components was due to (i) project design that accounted for actual conditions in the project area; (ii) the proactive participation of ADB in implementation, supervision, and monitoring; and (iii) the CDTA support to the implementing agency that resulted in on-time implementation. Institutional processes of NHA and ADB are not suited to the procurement requirements of medium and long-term rehabilitation of national highways under emergency conditions, which involved large-scale contracts.

## C. Recommendations for Follow-Up

40. The PCR recommended that ADB should fill in the capacity gaps within both executing and implementing agencies through technical assistance support so that emergency support is delivered expeditiously and cost escalations avoided. Another recommendation that comes out of the discussions in the PCR is that ADB should have different streamlined processes for emergency loans so that procurement and contract awards can be expedited. This validation supports these recommendations and has further additions. It proposes that emergency works based on visual inspection alone should be restricted to damage repair and rehabilitation works or to simple structures like rural roads and basic bridges. Components involving substantial reconstruction and rehabilitation, such as major highways and canals, should be based on detailed engineering measurement survey that follows international quality and safety standards and specifications. Procurement guidelines should also make provisions for fast-tracking procurement procedures for such large, emergency contracts.

## V. OTHER CONSIDERATIONS AND FOLLOW-UP

### A. Monitoring and Reporting

41. Consultants recruited under the CDTA supported the implementing agencies in carrying out the key governance functions of monitoring, reporting, and evaluation, among other things.

The project management consultants ensured compliance with ADB safeguard policy in the execution, monitoring, and reporting of the works contracts. The project performance monitoring system of NHA was robust, efficient, and monitored component progress. The performance management systems for the Sindh irrigation and roads components enabled monthly and biannual monitoring and evaluation of progress and performance.

#### **B. Comments on Project Completion Report Quality**

42. The overall quality of the PCR is satisfactory. It discussed the key implementation issues affecting the project outcomes and was candid in assessing the effectiveness and implementation efficiencies of different project components. It identified some useful lessons. The PCR, however, did not provide adequate details on the assumptions made and data used in deriving the economic internal rate of return for the irrigation component. It did not update the DMF to reflect the revised targets for the national highways component based on the reduced scope during implementation and the baseline indicators for employment as noted during the midterm review.

#### **C. Data Sources for Validation**

43. Data sources supporting this validation are the PCR, RRP, DMF, DNA, back-to-office reports of loan review missions, and midterm review report.

#### **D. Recommendation for Independent Evaluation Department Follow-Up**

44. The PCR suggested that a project performance evaluation report should be scheduled for 2017, since by that time the assets would have been in use for 3 years, making it possible to measure their impacts. This validation is of the view that this project could be reviewed as part of a broader evaluation of ADB experience in providing post-natural disaster emergency assistance.