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The World Bank

Report No: ICR00003442

IMPLEMENTATION COMPLETION AND RESULTS REPORT  
(TF-013382)

ON A

PNPM SUPPORT FACILITY (PSF) GRANT  
IN THE AMOUNT OF US\$ 4,153,500

TO THE

EASTERN INDONESIA KNOWLEDGE EXCHANGE

FOR THE

THIRD BAREFOOT ENGINEERS TRAINING PROJECT

June16, 2015

Global Practice for Social, Urban, Rural and Resilience  
Indonesia Country Management Unit  
East Asia and Pacific Region

CURRENCY EQUIVALENTS  
(Exchange Rate Effective December 31, 2014)

Currency Unit = Rupiah  
IDR 1.00 = US\$ 0.000081  
US\$ 1.00 = IDR 12,407

FISCAL YEAR  
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BaKTI	<i>Bursa Pengetahuan Kawasan Timur Indonesia</i> (Eastern Indonesia Knowledge Exchange)
BE	Barefoot Engineers
BPD	<i>Badan Perwakilan Desa</i> (Village Representative Council)
BPMK	<i>Badan Pemberdayaan Masyarakat Kampung</i> (Village Community Empowerment Board)
CAS	Country Assistance Strategy
CDD	Community-driven development
CPS	Country Partnership Strategy
DSF	Decentralization Support Facility
GoI	Government of Indonesia
GRM	Grant Reporting and Monitoring
IGSES	Implementation Guideline for Social and Environmental Safeguards
ICR	Implementation Completion and Results
IDR	Indonesian Rupiah
ISR	Implementation Status Results
JMC	Joint Management Committee
Kabupaten	District
KDP	Kecamatan Development Program
Kecamatan	Sub-district
KPI	Key Performance Indicator
MIS	Management Information System
MoHA	Ministry of Home Affairs
NGO	Non-government organization
PDO	Project Development Objective
PMD	<i>Pemberdayaan Masyarakat Desa</i> (Village Community Empowerment)
PNPM	<i>Program Nasional Pemberdayaan Masyarakat</i> (National Community Empowerment Program)
PROPENAS	<i>Program Pembangunan Nasional</i> (National Development Program)
PSF	PNPM Support Facility
RESPEK	<i>Rencana Strategis Pembangunan Kampung</i> (Strategic Village Development Plan)
TPK	<i>Tim Pengelola Kegiatan</i> (Village Implementation Team)
UNCEN	Universitas Cenderawasih
UPP	Urban Poverty Project

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Country Director: Mr. Rodrigo A. Chaves  
Acting Practice Manager: Kevin Tomlinson  
Project Team Leader: Ms. Sonya Woo  
ICR Team Leader: Ms. Sonya Woo

**INDONESIA**  
**THIRD BAREFOOT ENGINEERS TRAINING PROJECT**

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<b>A. Basic Information</b>			
Country:	Indonesia	Project Name:	Barefoot Engineers III
Project ID:	P131387	L/C/TF Number(s):	TF-13382
ICR Date:	06/30/2015	ICR Type:	Core ICR
Lending Instrument:	TAL	Grantee:	NGO
Original Total Commitment:	USD 1.75M	Disbursed Amount:	USD 4.02M
Revised Amount:	USD 4.09M		
<b>Environmental Category: C</b>			
<b>Implementing Agencies:</b> Bursa Pengetahuan Kawasan Timur Indonesia (BaKTI)			
<b>Cofinanciers and Other External Partners:</b> DFAT			

<b>B. Key Dates</b>				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	09/19/2012	Effectiveness:		10/25/2012
Appraisal:	10/02/2012	Restructuring(s):		02/25/2013 10/22/2013 02/28/2014
Approval:	10/05/2012	Mid-term Review:		11/08/2013
		Closing:	12/31/2013	12/31/2014

<b>C. Ratings Summary</b>	
<b>C.1 Performance Rating by ICR</b>	
Outcomes:	Moderately Satisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Moderately Satisfactory
Grantee Performance:	Moderately Satisfactory

<b>C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)</b>			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Satisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Satisfactory
<b>Overall Bank Performance:</b>	Moderately Satisfactory	<b>Overall Borrower Performance:</b>	Moderately Satisfactory

<b>C.3 Quality at Entry and Implementation Performance Indicators</b>			
<b>Implementation Performance</b>	<b>Indicators</b>	<b>QAG Assessments (if any)</b>	<b>Rating</b>
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Satisfactory		

<b>D. Sector and Theme Codes</b>		
	<b>Original</b>	<b>Actual</b>
<b>Sector Code (as % of total Bank financing)</b>		
Vocational training	100	100
<b>Theme Code (as % of total Bank financing)</b>		
Other social development	100	100

<b>E. Bank Staff</b>		
<b>Positions</b>	<b>At ICR</b>	<b>At Approval</b>
Vice President:	Axel van Trotsenburg	Pamela Cox
Country Director:	Rodrigo A. Chaves	Stefan G. Koeberle
Practice Manager/Manager:	Kevin A Tomlinson	Jan Weetjens
Project Team Leader:	Sonya Woo	Susanne Holste
ICR Team Leader:	Sonya Woo	
ICR Primary Author:	Andre Oosterman	

## **F. Results Framework Analysis**

### **Project Development Objectives (from Project Appraisal Document)**

The objective of the project is to provide trained technical facilitators for the PNPM Rural/RESPEK Program in the provinces of Papua and West Papua.

### **Revised Project Development Objectives (as approved by original approving authority)**

**(a) PDO Indicator(s)**

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	Number of qualified technical facilitators provided by the project to PNPM Rural/RESPEK Program in the provinces of Papua and West Papua			
Value quantitative or Qualitative)		270		290
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)	The provincial governments of Papua and West Papua hired 287 of 290 facilitators trained by the project			
<b>Indicator 2 :</b>	Percentage of qualified female technical facilitators provided by the project to PNPM Rural/RESPEK Program in the provinces of Papua and West Papua			
Value quantitative or Qualitative)		20%		28%
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)				
<b>Indicator 3 :</b>	Percentage of infrastructure sub-projects rated good quality			
Value quantitative or Qualitative)		62%		50%
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)	Based on Technical Evaluation of PNPM RESPEK Infrastructure Built by the Barefoot Engineers Technical Facilitator Training Program in Papua-Akatiga Social Analysis, 2015			

**(b) Intermediate Outcome Indicator(s)**

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	Component 1: Number of Participants trained			
Value (quantitative or Qualitative)		300		290
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)				
<b>Indicator 2 :</b>	Component 1: Percentage of women participate in the training			

Value (quantitative or Qualitative)		More than and equal to 30%		28%
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)				
<b>Indicator 3 :</b>	Component 1: Retention of barefoot engineer program graduates by PNPM Rural in Papua and West Papua			
Value (quantitative or Qualitative)		243		206
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)	Status as of 31 December 2014 based on provincial government records			
<b>Indicator 4 :</b>	Component 1: Number of facilitators who receive two-week refresher training			
Value (quantitative or Qualitative)		270		357
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)				
<b>Indicator 5 :</b>	Component 2: Final course report			
Value (quantitative or Qualitative)		Completed		Completed
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)				
<b>Indicator 6 :</b>	Component 2: Tracer study of BE graduates			
Value (quantitative or Qualitative)		1		1
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)	Tracer study of Barefoot Engineer I & II graduates completed in April 2013. The study confirmed that the training was an important program for developing local capacity, promoting local needs and use of local assets for capacity building & implementation			
<b>Indicator 7 :</b>	Component 3: Unqualified financial audit			
Value (quantitative or Qualitative)		Audit		Audit
Date achieved		12/31/2013		12/31/2014
Comments (incl. % achievement)	The independent project audit was completed on-time with an unqualified opinion.			

achievement)	
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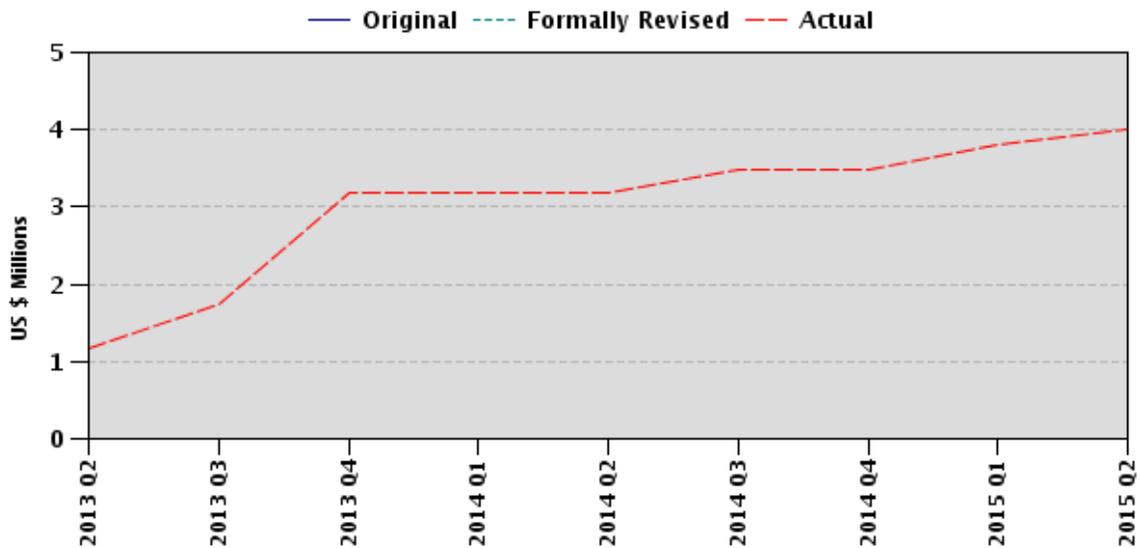
### G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	09/17/2013	Satisfactory	Satisfactory	3.19
2	05/13/2014	Satisfactory	Satisfactory	3.48
3	11/23/2014	Satisfactory	Satisfactory	4.02

### H. Restructuring (if any)

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
02/25/2013				1.75	changes in the full grant amount
10/22/2013		S	S	3.19	Extend the closing date
02/28/2014		S	S	3.48	Extend the closing date

### I. Disbursement Profile



## 1. Project Context, Development Objectives and Design

### 1.1 Context at Appraisal

In the late 1990s, the Government of Indonesia (GoI) created a national development program (*Program Pembangunan Nasional* or PROPENAS) for 2000-2004 aimed at increased public participation, improved governance, and economic recovery. The economic recovery program prioritized poverty alleviation and the development of a community-based economic system. PROPENAS 2000-2004 emphasized the need to establish partnerships between government, communities and the private sector, and to increase efforts to overcome poverty and social instabilities. To help achieve these objectives, the World Bank assisted GoI with the implementation of a series of poverty reduction projects, initially consisting of the Kecamatan Development Project (KDP) series in rural areas, and the Urban Poverty Project (UPP) series in urban areas. Implementation of the first KDP and UPP commenced in 1998.

In 2006, GoI launched the National Program for Community Empowerment, which is better known by its Indonesian acronym PNPM (*Program Nasional Pemberdayaan Masyarakat*). PNPM was established as the operational umbrella for all community-based development (CDD) programs in the country, including the KDP and UPP series. An inter-ministerial working group (*Kelompok Kerja Pengendali PNPM Mandiri* or “Tim Pengendali”) provided oversight of PNPM at the national level. The group was chaired by the Coordinating Minister for People Welfare and its members include representatives from the Ministry of Home Affairs (MoHA), the National Development and Planning Board (BAPPENAS), the Ministry of Finance, and relevant line ministries. Coinciding with the creation of PNPM, GoI also established the PNPM Support Facility (PSF) to harmonize and coordinate development partner efforts, including the planning and targeting of financial assistance, as well as monitoring and evaluation of the program’s operations and impact. The PSF is managed by a Joint Management Committee (JMC) with representatives from GoI agencies and developing partners contributing at least US\$1 million to PNPM projects.

In 2013, the Bank had financed—or was financing—PNPM in rural areas through four projects, known as PNPM-Rural I, II, III, and IV. The Bank’s total financing commitments to these projects was over US\$1.8 billion. A primary lesson learned from the implementation of all PNPM Rural projects was the critical importance of qualified facilitators, whose main role is to help communities with the planning, design and construction of small-scale infrastructure projects, such as roads, irrigation canals and water supply systems. PNPM facilitators for rural areas were hired by provincial governments and assigned to a sub-district (*kecamatan*), of which there are currently about 14,000 in all of Indonesia.<sup>1</sup> Since the start of KDP, provincial governments in the eastern part of Indonesia have experienced difficulties in recruiting qualified technical facilitators. Vacancy rates for this type of facilitator have been especially high in the provinces of Papua and West Papua, partly because of a local shortage of skills but also because facilitators from other parts of Indonesia are reluctant to relocate to these provinces in view of the difficult working conditions (including but not limited to lingering security concerns, limited receptiveness of indigenous communities to be facilitated by “outsiders”, and the extreme remoteness of project locations—many of which require 12-24 hours of travel from the nearest district capital).

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<sup>1</sup> Confusingly, sub-districts in the provinces of Papua and West Papua are commonly referred to as *distrik*.

To address the shortage of technical facilitators for CDD programs in Papua and West Papua, GoI requested grant financing from development partners to finance a series of residential courses in technical facilitation for high school graduates from these two provinces. Upon successful completion of the course, graduates would be hired by the provincial governments of Papua and West Papua as technical facilitators for PNPM in rural areas (including PNPM-RESPEK, a local variant of the program).<sup>2</sup> The first of these courses, known as the First Barefoot Engineers Training Project (BE-I) was financed by a grant from the Government of the Netherlands and implemented in 2002-2003. BE-II was implemented in 2008-2009 with support from the Government of Australia.

The BE-III project was consistent with the FY2009-12 Country Partnership Strategy (CPS) for Indonesia, *Investing in Indonesia's Institutions for Inclusive and Sustainable Development* as well as the CPS for FY2013-15, which was still under development at the time of appraisal. However, both CPSs emphasized engagement with government counterparts at the national and subnational levels and other stakeholders to address critical governance and institutional challenges.

## **1.2 Original Project Development Objective and Key Performance Indicators**

Consistent with the Grant Agreement, the project development objective (PDO) is “to provide trained technical facilitators for the PNPM Rural/RESPEK Program in the provinces of Papua and West Papua”.<sup>3</sup>

### *PDO level result indicators*

1. Number of qualified technical facilitators provided by the project to PNPM Rural/RESPEK Program in the provinces of Papua and West Papua;
2. Percentage of qualified female technical facilitators provided by the project to PNPM Rural/RESPEK Program in the provinces of Papua and West Papua; and
3. Percentage of infrastructure sub-projects rated of good quality.

### *Intermediate result indicators*

The project included seven intermediary results indicators (indicators are in brackets):

1. Conduct training and mentoring (number of participants trained, percentage of women participating in the training, retention of barefoot engineer program graduates by PNPM Rural in Papua and West Papua, number of facilitators who participate in a two-week refresher training);
2. Monitoring and evaluation (final course report, tracer study of BE graduates); and
3. Implementation support (unqualified financial audit).

## **1.3 Revised PDO and Key Indicators**

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<sup>2</sup> In 2007, the provincial governments of Papua and West Papua launched the local CDD program RESPEK (*Rencana Strategis Pembangunan Kampung* or Strategic Village Development Plan). In 2008, RESPEK was integrated with PNPM, and the combined program became known as “PNPM Rural/ RESPEK”.

<sup>3</sup> Because of the relatively small size of the project, no PAD was prepared.

The PDO and the key indicators remained unchanged during project implementation. It should be noted however, that the original Grant Agreement contained substantially lower targets for the first two indicators (the third PDO level result indicator was not mentioned in the Agreement). This was because the Bank was unable to provide the full grant amount of about US\$4.15 million in 2012. To avoid delays in implementation, a Grant Agreement for US\$1,753,500 million was signed on October 17, 2012, and an amended Grant Agreement for the full US\$4,153,500 about four months later, on February 25, 2013. This two-step arrangement was already anticipated by the Project Information Document, and was the result of delays in the securing the commitment from the development partners that financed the Trust Fund from which BE-III would be financed. However, the amended Grant Agreement did not contain the revised key indicators (or the revised targets) that were mentioned in the Project Paper. Indeed, according to article 3 of the Agreement, "...all terms and conditions of the Grant Agreement otherwise [i.e. other than the revised grant amount] remain in full force and effect". Therefore, although BaKTI (and the Bank team) used the indicators and targets of the Project Paper, BaKTI was not contractually bound to do so.

#### **1.4 Main Beneficiaries**

The intended primary project beneficiaries were 300 high school graduates from Papua and West Papua who were to be trained as technical facilitators for PNPM Rural/RESPEK. The population of the *kecamatan* where they would be deployed would benefit from improved community infrastructure. Secondary beneficiaries would be: (i) central and provincial agencies tasked with Village Community Empowerment (PMD at the national level and BPMK or *Badan Pemberdayaan Masyarakat Kampung* at provincial level), which would benefit from increased capacity, (ii) district agencies providing implementation support at the district (kabupaten) level, and (iv) village representative councils (Badan Perwakilan Desa or BPD), which would benefit from technical assistance and advisory services provided by the newly trained technical facilitators.

#### **1.5 Original Components**

This ICR covers the third and most recent Barefoot Engineers Training Project. BE-III was financed by a US\$4,153,500 grant from a Bank-administered Trust Fund under PSF to BaKTI (*Bursa Pengetahuan. Kawasan Timur Indonesia* or Eastern Indonesia Knowledge Exchange), a Makassar-based NGO that would act as the implementing agency of the project. BaKTI would deliver the training in collaboration with Universitas Cenderawasih (UNCEN), a university based in Jayapura, the capital of Papua province. The closing date of the Grant Agreement was December 31, 2013.

##### **Part 1: Conduct Training and Mentoring (US\$3,413,300)**

This component financed: (i) the provision of a six-month training program for high school graduates on basic engineering and facilitation skills, (ii) the delivery of a refreshing training program consisting of two seven-day courses on strengthening the core skills of the alumni of the basic engineering training, and (iii) the organization of a mentoring and on-the-job training programs for the graduates, participation of the trainers/mentors in PNPM's regular districts and provincial meetings, and field visit to the sub-districts where the facilitators are posted.

##### **Part 2: Monitoring and Evaluation (US\$214,000)**

This component supported BaKTI's regular monitoring activities. In addition, the component financed: (i) an evaluation designed to assess the effectiveness of the barefoot training approach, and (ii) a tracer study of previous BE graduates to assess their contribution to the development of Papua and West Papua.

### **Part 3: Providing Supervision and Implementation Support (US\$526,200)**

This component covered the incremental operating costs of BaKTI, the cost of an independent financial audit, and (Bank-executed) PSF implementation support in the amount of \$68,500, which was set aside from this Trust Fund.

#### **1.6 Revised Components**

On February 25, 2013, the World Bank signed a Grant Agreement with BaKTI that contained an allocation for PSF implementation support. However, because this activity would be Bank-executed (unlike the other Grant-financed activities, which would be executed by BaKTI), it was removed about three months later through a second amendment (signed on May 27, 2013). Given that the inclusion of PSF implementation support was short-lived and did not affect the implementation of any of the other project components, it has not been included in this ICR. A separate Grant Reporting and Monitoring of the Bank-Executed Trust was completed in December 2014.

#### **1.7 Other significant changes**

**Changes to the Grant amount.** As described in Section 1.3, the original Grant Agreement was amended on February 25, 2013 to increase its amount from US\$1,753,500 to US\$4,153,500. The Grant Agreement was amended a second time on May 27, 2013 to reduce the grant amount from US\$4,153,500 to US\$4,085,000. The reduction of US\$68,500 was equal to the estimated cost of PSF implementation, which was removed from the scope of the Agreement (Section 1.6).

**Revision to Grant closing date.** Given the delays in securing financial commitments for the Grant from the respective donors, implementation of the project started almost one year later than originally envisaged. On October 19, 2013, the Bank approved a request by BaKTI to extend the grant to June 30, 2014 to allow for sufficient time for refresher training and mentoring of BE graduates. On February 28, 2014, the Bank approved a request by BaKTI to extend the Grant by another six months, to utilize the remaining grant funds (approximately US\$631,920) to provide further mentoring and coaching for district-level technical and social facilitators (which was not originally planned but requested by communities); and carry out additional refresher training in response to the findings of the program's mentors. The revised closing date was December 31, 2014.

## **2. Key Factors Affecting Implementation and Outcomes**

### **2.1 Project Preparation, Design and Quality at Entry**

Rating: *Moderately Satisfactory*

**Soundness of background analysis.** The design of BE-III was based on a sound analysis of BE-I and BE-II, but with several modifications to reflect lessons learned from the implementation of these predecessor projects. The most important of these lessons were the following: (i) make a significant effort to select appropriate candidates, (ii) provide refresher training and

mentoring (also to graduates of BE-I and BE-II), (iii) provide adequate compensation to facilitators, especially to those working in remote areas, (iv) and (iv) do not use oversight consultants to provide training (as they would need to supervise their own trainees, which could result in potential conflicts of interest).

**Assessment of project design.** The PDO was relevant and corresponded to GoI's priority to reduce facilitator vacancies and therefore improve the performance of its nationwide CDD program. The components and implementation arrangements were well designed, realistic, and not overly complex, having been largely adapted from proven approaches developed under BE-I and BE-II. The components were likely to result in the achievement of the PDO. Component 1 would deliver a course in technical facilitation and provide refresher training and mentoring to ensure that the graduates correctly applied their skills in project locations. Components 2 and 3 would support the implementation and monitoring and evaluation of the first component. The results framework was adequate; it consisted of a relatively small number of well-defined and relevant performance indicators. The achievement of most of these indicators was measured on a quarterly basis, so that the implementing agency would be able to take corrective action at short notice. However, the target for the PDO level indicator "percentage of infrastructure sub-projects rated good quality" was deemed overly ambitious, as it implicitly assumed that BE-III graduates would be able to achieve the same quality as more experienced and better educated non-BE technical facilitators (see Section 5.1 for details). In addition, the quality of the infrastructure outputs could not be entirely attributed to technical facilitation because it is the community that implements the subprojects. The same could be said for one of the intermediary results indicators, "retention of barefoot engineer program graduates by PNPM Rural in Papua and West Papua" (90%). Compared with most other disadvantage youth training programs (which typically yield results closer to 50%), this expected target is unusually high, and especially in the difficult context in which the project was being implemented.

**Adequacy of government commitment, stakeholder involvement, and participatory processes.** BE-III was designed and implemented with the active involvement of provincial and sub-national government agencies. However, limited coordination with the Ministry of Home Affairs, the implementing agency of PNPM Rural, affected the ability of provincial government officials to work together with the project, as they often did not receive national approval for travel, and were therefore unable to attend and monitor pre-service meetings and trainings.

Assessment of risks and risk mitigation measures. The overall project risk was rated "moderate", assuming that the proposed mitigation measures would be put in place. The risks assessment and mitigation measures were generally on target, except the stakeholder risk. This was rated "low", even though the limited involvement of the central government reduced the effectiveness of provincial government involvement and, indirectly, also increased the risk to development outcome (see Section 4). While some risks were more successfully mitigated than others, there were no anticipated risks or missed opportunities for mitigation that seriously limited achievement of project outcomes.

The project's Quality at Entry is rated *Moderately Satisfactory*.

## **2.2 Implementation**

The project was affected by factors that supported and challenged implementation efforts, and which were both within and outside BaKTI's control.

**Training course.** As this Grant was approved in October 2012, BaKTI designed a training course for technical facilitators with additional financial support from the Government of Australia, (which was provided to avoid further delays in project preparation that were caused by above-mentioned delays in signing of the Grant Agreement). The design was based on an analysis of previous BE projects and prepared in close consultation with sub-national governments and PSF. In July 2012, a team consisting of provincial and district government officials and BaKTI staff selected 300 participants (209 men and 91 women) from a long list of nearly 1,600 applicants; about 70% of the selected trainees were original Papuans and remainder consisted of transmigrants. Selection was based on a written test and an interview. The actual training was delivered by 15 trainers of BaKTI and Universitas Cenderawasih (UNCEN) from October 2012 to March 2013 (UNCEN also provided class rooms and other facilities). Students participated in the course on a full-time basis and were given full boarding. Ten persons did not complete the course, mainly because of family circumstances. All of the remaining 290 participants graduated (consisting of 208 and 82 women). The provincial governments hired 287 of the 290 graduates within two months from completing the course, and deployed most of their recruits immediately in sub-districts with technical facilitator vacancies. Both provinces deliberately did not deploy BE-III graduates in sub-districts where their home town was located, to avoid problems of elite capture.

**Mentoring.** Upon completion of the training course all graduates were assessed to have acquired the qualifications that were required to perform on-the-job. An assessment by BaKTI indicated that 186 of the 290 graduates (or 64% of the total) were unable to work immediately as technical facilitators without some form of external support (given that some trainees had no prior work experience in the role and no academic background beyond highschool to begin with). Based on previous lessons, this was already expected, and a mentoring component was designed into the program curriculum from the outset. From June 2013 to November 2014, 11 mentors who had been working under PNPM Rural provided on-the-job training to weaker technical facilitators, usually for a period of 5-10 days per visit. Each mentor was responsible for a “mentoring area” covering about 20-25 sub-districts. The mentoring program therefore helped to bridge the initial “practical experience” gap that was expected and provided graduates the support that was needed to ensure that they were fully proficient in their new role.

**Refresher training.** In the first quarter of 2014, BaKTI delivered refresher training to 357 BE graduates in three sessions (one session each for BE-I, BE-II and BE-III graduates). Each refresher training session lasted 12 days, with 10 days allocated to technical training and two days to non-technical matters. All training materials were certified by the project’s mentors. In the fourth quarter of 2014, the implementing agency also organized two consolidation trainings of four days each, covering each of the eleven “mentoring areas”. The purpose of these trainings was to provide technical training tailored to the specific needs of a mentoring area.

**Factors outside the control of the government or implementing agency.** Most parts of Papua and West Papua are among the most geographically isolated areas on Earth. The provinces are also isolated from most of the rest of Indonesia. These conditions have resulted in a series of factors that were highly relevant to the project, but were beyond the control of the government in the short or medium term:

- Limited pool of potential graduates. Education levels were significantly lower in Papua and West Papua than in most other provinces in Indonesia, and skilled graduates were in

short supply. This condition made it difficult to identify suitable candidates for the training program.

- Difficult working circumstances. Because of the geographical isolation of many project locations, as well as security concerns in certain districts (notably Puncak and Puncak Jaya), a substantial number of graduates resigned as technical facilitators during the project implementation period. (In December 2014, 81 of the 287 graduates that were hired by the provincial governments were no longer employed as technical facilitators, and the vast majority of these had resigned themselves).
- Limited job opportunities in the Papua and West Papua economies. All 20+ BE-III graduates interviewed for the preparation of this ICR were unemployed in the first half of 2015 (after the PNPM Rural/RESPEK Program was terminated and before the start of a successor program; see also Section 2.5). They were unable to find alternative employment because of a general shortage of job opportunities in Papua and West Papua.

### **Factors subject to the control of the government or implementing agency**

#### ***Positive factors***

- Strong commitment from provincial and district governments. The provincial and district governments of Papua and West Papua actively participated in the detailed design of the project and in the development of objective selection criteria for candidates. Both provincial governments recruited the vast majority of BE-III graduates within weeks from completion of the six-month course.
- Good coordination with Village Implementation Teams (*Tim Pengelola Kegiatan* or TPK). In many cases, the BE facilitators worked closely with the TPKs to effectively coordinate and deliver results.
- Excellent management of the training course. Because of delays on the signing of the Grant Agreement, BaKTI had limited time at its disposal to design the training course. In spite of this limitation, BaKTI was able to deliver training courses on time that were well-structured and adequately prepared the trainees for work as technical facilitators for PNPM Rural/RESPEK (as evidenced by the relatively high quality of the infrastructure constructed under the graduates' auspices; 50% against the provincial average of 62%). This is all the more commendable given the large number of trainees and the particular problems posed by providing capacity building support in Papua and West Papua.

#### ***Negative factors***

- Rapid increase in number of sub-districts. In recent years, both the number of *kabupaten* and *kecamatan* in Papua and West Papua have increased at much higher rates than elsewhere in Indonesia due to the aspirations of communities to improve access to Central government budget and services. This development has inadvertently increased the vacancy rates of PNPM Rural/RESPEK facilitators for two main reasons: (i) experienced facilitators fill in newly created civil servant positions, so that the number of remaining facilitators decreases, and (ii) the number of *kecamatan* increases, which increases demand for facilitators.
- Weaknesses in facilitation by district governments. Some district governments did not actively manage or provide the necessary support to facilitators working at the sub-district level—including BE-III graduates. In some districts, the quality of facilitation was

reportedly compromised by the perceived immunity of well-connected facilitators from corrective action by the provincial government.

- No financial support from central or sub-national governments. The central government and the governments of Papua and West Papua acknowledged the need for a short-term training course to overcome shortages of technical facilitators in isolated areas, but have as yet not provided counterpart funding for any of the Barefoot Engineers projects, or financed similar training programs from their own resources.
- Limited effectiveness of disciplinary measures. A small number of trainees abused alcohol, sexually harassed female trainees or misbehaved in other ways. Project management did not respond effectively to these complaints.
- Logistical problems. BaKTI's implementing partner UNCEN provided seven class rooms instead of ten, which resulted in a much higher student-per-classroom ratio than originally envisaged.

### **Mid-term review**

Because of the short implementation period, a formal mid-term review was not planned or undertaken. However, the Bank fielded a mission in July 2013, shortly after completion of the six-month training, which was in actual fact (albeit not administratively) functioned as a mid-term review. The main conclusions of this mission were: (i) the project was basically on track to meet its development objectives; (ii) the provincial government should reconsider deploying graduates in districts where it is generally unsafe to work; and (iii) future training course must impose more effective disciplinary measures against trainees who harass others.

## **2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization**

Rating: *Substantial*

The project measured progress against key performance indicators (KPIs), which were documented by the Bank in Implementation Status and Results (ISR) reports and quarterly progress reports.

- M&E design.** The ISRs and quarterly progress reports contained a narrative description of the results, obstacles, challenges and lessons learned during the reporting period. The reports contained information on the achievement of the KPIs against the targets mentioned in the project paper (except for “percentage of infrastructure sub-projects rated of good quality. It was unclear why a target for this indicator was set nine months later, in the Aide Memoire of July 2013). Monitoring and evaluation was further augmented by a tracer study of BE-I and BE-II graduates, a technical evaluation of the quality of infrastructure constructed with facilitation of BE graduates (see Section 3.6 for details) and supervision mission. The tracer study was issued in April 2013. The technical evaluation was completed in the first half of 2015, several months after closing.
- M&E implementation.** The Bank issued progress reports of high quality in a timely manner and with a clear description of obstacles and challenges encountered during the reporting period, and suggestions for corrective action.
- M&E utilization.** Data from progress reports and supervision missions helped the project to identify and remedy quality problems and to incorporate better controls as

the project progressed, and fine-tune the targeting of resources to the areas with the greatest needs and to help achieve the greatest impacts. The results of the technical evaluation were used to provide final data on some of the key performance indicators and also provide lessons learned for future interventions. The results of the tracer study will be used to provide lessons learned for designing similar interventions in the future that aim to address technical facilitator shortages in remote areas in Indonesia.

## **2.4 Safeguard and Fiduciary Compliance**

**Safeguards.** At the time of appraisal, no environmental or social safeguard issues of any kind were anticipated, because BE-III would only finance investments in capacity building and the project was rated as Category “C.” However, an ISDS was prepared and disclosed on October 5, 2012. Since no issues arose during implementation, safeguards policies were complied with. The training also incorporated safeguards modules from the PNPM Rural’s Implementation Guideline for Social and Environmental Safeguards (IGSES) and conducted in a culturally appropriate manner with a view of minimize adverse social impacts of infrastructure to be developed with the support of the BE-III graduates.

### **Fiduciary compliance.**

Financial management. The implementing agency, which was responsible for the financial management of the Grant funds, was in compliance with the Bank’s fiduciary requirements and generally followed good financial management practices, including (i) timely submission of project financial reporting, (ii) sufficient staffing and segregation of duties within the finance unit, and (iii) providing adequate documentation in support of reported project expenditures. BaKTI’s accounts received an unqualified (clean) opinion from an external auditor in both 2013 and 2014, and according to all ISRs as well as the July 2013 Aide Memoire, the project’s financial management was rated “satisfactory”.

Procurement. All contracts for goods and consulting services (including individual consultants) were subject to post review, except for selection of external firms for audit for which prior review was only required for the terms of reference and draft contract. Generally, procurement was done as per the schedule agreed in the procurement plan.

## **2.5 Post-completion Operation/Next Phase**

- (a) Transition arrangements.** BE-III was closed on December 31, 2014, without a commitment from central or provincial governments to continue similar training programs, even though vacancy rates of technical facilitators remained high in Papua (20%), West Papua (30%), and most other provinces in eastern Indonesia (on average 17%). Although PNPM Rural was also closed in December 2014, the Government is currently developing a new CDD program (see below) that is likely to require even more facilitators, including facilitators with a technical background.
- (b) Follow-up projects.** The newly created Ministry of Villages, Disadvantaged Regions and Transmigration is considering developing a training program similar to BE-III. This program would train technical facilitators (and possibly other types of facilitators) for a new CDD program that the ministry is currently developing, based on the recently issued Village Law.
- (c) Future impact evaluation.** Not applicable.

### **3. Assessment of Outcomes**

#### **3.1 Relevance of Objective, Design and Implementation**

##### **Relevance of objective**

Rating: *High*

The PDO of providing trained technical facilitators for PNPM Rural/RESPEK in the provinces of Papua and West Papua remained highly relevant throughout implementation. By reducing the shortage of qualified technical facilitators, the project complemented the Government's efforts to improve socio-economic development and empower local communities under Cluster Two of its three-cluster poverty reduction strategy.<sup>4</sup> The newly elected President recently confirmed his commitment to community-driven development projects, and intends to continue the implementation of CDD programs in rural areas beyond 2014, albeit with modified implementation arrangements (based on the new Village Law, such programs would be implemented at village level, not at *kecamatan* level). The CDD approach is also a key component of the Bank's Country Partnership Strategy for 2013-2015, which emphasizes engagements with government counterparts and other stakeholders who are committed to addressing critical governance and institutional challenges. The CPS identifies six thematic areas that are expected to form the core of the Bank's engagement in Indonesia, three of which are directly relevant to PNPM Urban: (i) Promoting Communities, Protecting the Vulnerable and Improving Health Outcomes, (ii) Ensuring Sustainable Development and Improving Disaster Resilience, and (iii) Gender and Governance. Therefore, at completion the project was still highly relevant to the objectives of both the Bank and the Government of Indonesia.

##### **Relevance of design**

Rating: *Substantial*

Over 80% of the estimated project cost consisted of investment in the training course itself and accompanying investments in mentoring and refresher training to ensure the effectiveness of the training course in the medium and long term. Most of the remainder of the project cost was allocated to monitoring and evaluation (with a long-term view on improving the performance of successor BE projects) and on implementation support to help ensure that the project would achieve its intended targets with some degree of sustainability. The project's design was therefore substantially relevant to the achievement of the project's objectives throughout the implementation period, although it is acknowledged that the timing of the beneficiary survey could have been better, so that the results would also have benefitted the existing project (as opposed to future BE projects only).

#### **3.2 Achievement of Project Development Objective (Efficacy)**

Rating: *Substantial*

The project was successful in achieving its development objective of providing trained technical facilitators for the PNPM Rural/RESPEK Program in the provinces of Papua and West Papua. Under Component 1 of the project, BaKTI eventually recruited, accommodated and

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<sup>4</sup> Cluster 1 focuses on social protection; Cluster 2 promotes community level development and empowerment; Cluster 3 supports small and medium enterprises and microfinance.

trained 290 facilitators, 20 more than the target of 270, over a six month period. Of these, 28% were female, exceeding the target of 20%.<sup>5</sup> This is assessed to be a significant achievement given the complex operating environment in Papua and Papua Barat. In addition, the project provided a 12 day refresher training course to a higher number of persons than envisaged at appraisal (357 vis-à-vis 270). Overall, the total number of person-days of training completed was about 39,500, inclusive of the basic, refresher and consolidation training. Training topics covered engineering, infrastructure construction and design, budget planning, ethics, facilitation, community mobilization and inclusion, problem solving and lateral thinking. While the result (50%) for PDO indicator three (percentage of infrastructure subprojects rated good quality) fell somewhat short of the target of 62%, it is important to note that: (i) a disconnect was noted between the findings of the Bank's own supervision missions, which rated on average, a 70-75 percentage of infrastructure subprojects visited as good quality within the for the period between 2013-2014 compared with the findings of the Akatiga's 2015 study<sup>6</sup>; (ii) the quality of infrastructure subprojects facilitated by BE-III graduates was not significantly lower than the quality of subprojects facilitated by more experienced and better trained non-BE facilitators. (Refer to Annex 2 for details on the achievement of all KPIs); and (iii) the ICR assessed that the baseline indicator of 62% was unrealistically high to begin with (as described in Section 5.1 (a)). Furthermore, while the provincial governments did not guarantee or were obliged to give jobs for BE graduates, the fact that all the graduates (except three) were offered employment directly after training completion speaks volumes regarding the reputation of the training program.

### 3.3 Efficiency

Rating: *Substantial*

Studies indicate that the net economic benefits of community-driven development projects are substantial, especially because such projects are highly cost-effective.<sup>7</sup> In many villages in Papua and West Papua, these benefits are not realized (or are not realized to the fullest possible extent) because these villages do not have access to qualified technical facilitators. The project provided 287 technical facilitators, of whom 206 were still employed by the provincial governments of Papua and West Papua by the end of 2014 (a retention rate of 72%, lower than the target of 90%). Because each graduate covered about five villages, and because villages in the participating provinces receive about IDR 300 million (or US\$25,000) in infrastructure grants from PNPM Rural and PNPM RESPEK, the facilitators helped increase the economic benefits of infrastructure spending of over (200 x 5 x 25,000 =) US\$25 million per year. This suggests that even a modest increase in the economic benefits would be sufficient to justify the one-time investment of about US\$4 million (see Annex 1 for detailed project cost estimates). It should be noted, however, that the efficiency of the project would have been higher if the provincial governments had managed to improve the retention rate and the central government had taken steps to avoid the (presumably) temporary unemployment of facilitators in the first half of 2015 (see Section 2.2). Compared to the substantial economic benefits of improved

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<sup>5</sup> There was an inconsistency in the results framework; an intermediate results indicator required a female participation rate in the trainings of at least 30%, whereas the PDO level indicator required at least 20%.

<sup>6</sup> This finding is further substantiated by *2012 PNPM Mandiri Rural Infrastructure Technical Evaluation Report, PNPM Support Facility*.

<sup>7</sup> See, for example, *Laporan Akhir Studi Skala Kecil Analisis Manfaat Ekonomi Proyek Infrastruktur PNPM Mandiri Perdesaan* (PNPM Support Facility, July 2012).

technical facilitation, these drawbacks were deemed minor and the efficiency of the project was consequently rated “substantial”.

### **3.4 Justification of Overall Outcome Rating**

Rating: *Moderately Satisfactory*

The PDOs remained highly relevant throughout the implementation period. The relevance of the design was rated substantial, especially because it aimed to ensure the effectiveness of training to BE graduated in the medium and long term. The project’s efficacy was also rated substantial as the project achieved its objective of providing trained technical facilitators for the PNPM Rural/RESPEK Program in the participating provinces. The project exceeded most targets set for the outcome and intermediate results indicators except with regard to the quality of infrastructure facilitated by BE-III graduates (which, as explained in Sections 3.2 and 5.1, is considered to be a flaw in the evaluation and results framework and not in the achievement of the PDO). In addition, it is important to note that villages (not facilitators) were ultimately responsible for the quality of infrastructure. This assessment is further qualified by the PNPM Mandiri Rural Infrastructure Technical Evaluation Report of 2012, which stated that “it is an obvious hypotheses that those sub-projects constructed in remoteness might also suffer from a low frequency, poor quality construction materials, lesser skilled and construction personnel, etc., which are the conditions of most of Papua.” The project’s efficiency was rated “substantial” because it helped increase economic benefits of investment in community-based infrastructure that were far higher than the total project cost, although efficiency could arguable have been higher still through better facilitator management. Because of the relevance of the project, the efficacy of the outcome and minor shortcomings to efficiency, the overall outcome of the project is rated “moderately satisfactory”.

### **3.5 Overarching Themes, Other Outcomes and Impacts**

**Gender aspects.** To strengthen the role of women in the CDD programs in Papua and West Papua, the project set a target for female participation in the training courses (30%), collected Management Information System (MIS) data on gender-disaggregated basis, and increased awareness of gender aspects in trainings.

**Other outcomes and impacts.** A positive but unexpected outcome of the project is the available of skilled technical facilitators for a village-based CDD program that GoI is currently developing. Although the detailed design was not available at the time of writing, it is anticipated that this program will be even more facilitator-intensive than PNPM Rural.

### **3.6 Summary of Findings of Beneficiary Survey and Stakeholder Workshops**

**Beneficiary surveys.** The project financed two beneficiary surveys: a tracer study designed to identify the current occupation of previous BE graduates, and an evaluation of the quality of infrastructure constructed with facilitation of BE graduates. The tracer study found that the majority of BE-I and BE-II graduates was no longer working for PNPM Rural/RESPEK, whereas the evaluation study did not find a significant difference in the quality of infrastructure facilitated by BE graduates vis-à-vis other technical facilitators—a surprising finding, given that non-BE technical facilitators were experienced and mostly university-trained (see Annex 5 for a more detailed summary of both studies).

**Stakeholder workshops.** No stakeholder workshop was conducted for the purpose of preparing this ICR. However, individual meetings to discuss the ICR preparation were held with various stakeholders. In addition, throughout the course of the project design and implementation, BaKTI organized regular meetings with provincial and district governments, MoHA representatives, NGOs, and other stakeholders to exchange views about project implementation.

#### 4. Assessment of Risk to Development Outcome

Rating: *Substantial*

The “Risk to Development Outcome” is defined as the risk that the development outcomes of the project—at the time this ICR was prepared—will not be maintained. This risk was deemed substantial, the main reasons being:

- Lower than expected retention rates. While the project was successful in meeting a specific need and training graduates who would in turn become facilitators, by the end of 2014, 72% of the 287 graduates that were hired by the provincial governments were still working as technical facilitators compared with a target of 90% (Table 1).
- Absence of long-term strategy to address shortages of technical facilitators. The shortage of technical facilitators for CDD programs in Papua, West Papua and several other provinces is not new, have been persistent since the introduction of such programs in the late 1990s. Nonetheless, GoI has to date not developed a long-term strategy to address this problem (in spite of its intentions to continue nationwide CDD programs) and continues to rely on ad hoc solutions to a permanent problem.
- Limited alternative employment opportunities. According to the tracer study of 2013, while a BE diploma was not officially recognized, BE graduates acquired skills that could be applied in the construction industry and perhaps elsewhere in the economy. However, the lack of job opportunities in Papua and West Papua makes securing long term gainful employment a particular challenge.

**Table 1: Employment of Technical Facilitators in Papua and West Papua**  
Status on 31 December 2014

	<b>Papua</b>	<b>West Papua</b>	<b>Total</b>	<b>% Total</b>
Technical facilitators required	397	170	567	100
Positions filled by:				
- BE I graduates	18	4	22	4
- BE II graduates	48	7	55	10
- BE III graduates	166	40	206	36
- Other facilitators (non-BE)	86	68	154	27
Vacant positions	79	51	130	23
Vacancy rate (% required)	<b>20</b>	<b>30</b>	<b>23</b>	

Source: World Bank, based on provincial government records (2015)

#### 5. Assessment of Bank and Grantee Performance

##### 5.1 Bank Performance

##### (a) Bank Performance in Ensuring Quality at Entry

Rating: *Moderately Satisfactory*

The strengths of the Bank in terms of ensuring quality at entry were:

- Placement of field-based staff. The Bank mobilized a multi-disciplinary supervision team based in Jakarta and Jayapura with expertise in project management, financial management, procurement, and monitoring and evaluation. The expediency of the staff was demonstrated with the compressed preparation, appraisal and negotiations schedule. The period from the project's concept review to appraisal was only a matter of weeks followed shortly by effectiveness.
- Thorough review of lessons learned. PSF, BaKTI and other stakeholders went to great lengths to study the strengths and weaknesses of BE-I and BE-II, and consistently applied those lessons learned to the design of BE-III.
- Selection of appropriate implementing agency. The Bank selected a highly capable implementing agency with appropriate regional experience, and provided timely training in financial management and procurement to further strengthen BaKTI's capabilities.
- Nationwide applicability. The project was explicitly designed to facilitate upscaling to also cover other provinces, such as Kalimantan Timur, with persistent technical facilitator vacancies.
- Relevance. The project successfully contributed to community empowerment and poverty alleviation, which remain key objectives of the GoI, and helped to implement the Bank's CPS for 2009-2012 and the project remained relevant into the next CPS. This strategy identified five thematic areas that are expected to form the core of the Bank's engagement, one of which was directly relevant to BE-III: Community Development and Social Protection.

These strengths were, to some extent, offset by the following weaknesses:

- Unrealistic outcome and intermediary target. One of the targets for the PDO level indicator "percentage of infrastructure sub-projects rated of good quality" was not set by the project paper, but about nine months later, in the July 2013 aide memoire, which stated that in 2012 "...an independent Technical Evaluation found that 62% of sub-projects were of good quality and the indicator will be measured against this baseline." The selection of this target implied that BE-III graduates would be able to help develop infrastructure at the same quality standards as more experienced and better trained technical facilitators, which was deemed unrealistic. It is also worth noting that the actual achievement of the BE-III graduates (50%) is comparable to the percentage of infrastructure subprojects rated as "good" or "very good" realized in other provinces in the eastern part of Indonesia. It is also unclear why the target was set after the Grant Agreement was amended twice, even though the target value was taken from a report that was published in 2012. In addition, the target of 90% set for the retention rate of graduates was exceedingly high (Section 2.1).
- Incomplete wording of revised Grant Agreement. As mentioned in Section 1.3, the amended Grant Agreement did not contain the revised key indicators (or revised targets) listed in the Project Paper, so that the implementing agency was legally not required to deliver higher outputs in return for a substantial increase in grant funding.

However, these weaknesses were considered moderate and did not adversely affect implementation, so the Bank's performance in ensuring quality at entry is rated "moderately satisfactory".

**(b) Quality of Supervision**

Rating: *Satisfactory*

Through PSF, the Bank mobilized a multi-disciplinary supervision team based in Jakarta and Jayapura with expertise in project management, financial management, procurement, and monitoring and evaluation. Intensive supervision enabled the Bank to identify and proactively address key issues adversely affecting achievement of the PDOs in an early stage, notably problems with coordination with central government agencies, unacceptable behavior of a small number of trainees and provided additional quality assurance on the delivery of training as well as project evaluation reports, all of which were documented in mission Aide Memoires and also raised with BaKTI. In addition, the Bank organized coordination meetings with MoHA on a quarterly basis as well as workshops attended by the Provincial Governments, MoHA and development partners in an attempt to bridge communications among various actors. Because of these supervision efforts, performance in these areas improved over time (as described in detail in the ISR and quarterly progress reports); and the quality of the Bank's supervision was rated "satisfactory" as a result.

**(c) Justification of Rating for Overall Bank Performance**

Rating: *Moderately Satisfactory*

Based on the ratings for quality at entry and quality of supervision, the Bank's overall performance was rated "moderately satisfactory".

## **5.2 Grantee Performance**

**(a) Performance of the Government**

Rating: *Moderately Satisfactory*

Within the Government of Indonesia, the participating provincial and district governments were actively involved in the design and implementation of BE-III (the central government less so; see Section 2.2). However, while the Government was not a signatory to the Grant Agreement, they still played an important enabling and authorizing role in the project and their role is rated as "Moderately Satisfactory." Their performance was only marginally limited by the challenges in maintaining adequate links to the national oversight agency, MoHA.

**(b) Implementing Agency Performance**

Rating: *Satisfactory*

The implementing agency (BaKTI) was also the grant recipient. From the outset, BaKTI demonstrated its strong commitment and support to the project and assigned highly qualified and committed staff to both its headquarters in Makassar and the project office in Jayapura. It prepared a high-quality training course at short notice, delivered this course on time to 290 trainees in a challenging environment. BaKTI also delivered most of the other components of the project on schedule (mentoring, refresher training, commissioning of beneficiary surveys), and its procurement and financial management was rated "satisfactory." At the same time, BaKTI could have responded more effectively to student complaints, and somewhat

undermined the credibility of the training course by allowing a 100% graduation rate. However, this did not have significant impacts on the projects overall outcomes.

**(c) Justification of Rating for Overall Grantee Performance**

Rating: *Moderately Satisfactory*

Based on the performance of both the Government and the Implementing Agency, the overall performance of the Borrower is rated “Moderately Satisfactory.”

**6. Lessons Learned**

- Investing in capacity building of high school graduates is a cost-effective means of improving socio-economic conditions in isolated areas. The implementation of BE-III has demonstrated that increasing the technical skills of recently graduated high school students may help to improve the implementation of CDD programs in isolated areas at a relatively low cost.
- Continued support for newly trained graduates remains essential. It is unrealistic to expect that graduates of a six-month course will be able to achieve the same outcomes as experienced facilitators. There should therefore be a mechanism in place that provides continued support to graduates through mentoring, refresher training and support by sub-national government agencies beyond the lifetime of an individual training project; ongoing twinning arrangements with the TPKs will be essential.
- Capacity building of technical facilitators needs to be embedded in a long-term strategy. The effectiveness of capacity building of high school graduates is greatly enhanced if it forms part of a long-term strategy to address facilitator shortages in isolated areas. If a government plans to support CDD programs in the long run it needs to establish a longer-term strategy to train and retrain facilitators on an annual basis.
- The quality of facilitation by sub-national government agencies is an important determinant of the success of technical facilitators. Facilitation remains of crucial importance to the success of community-based development projects, including BE-III. This observation does not only apply to the quality of facilitators at the sub-district level but also to facilitation at district and provincial level.

All lessons have general applicability for similar operations in Indonesia and comparable countries.

**7. Comments on Issues Raised by Grantee/Implementing Agencies/Donors**

**(a) Grantee/Implementing agencies**

BaKTI rates the implementation of BE-III as “highly satisfactory”, and considers the project a successful model for providing basic engineering training to high school graduates throughout Indonesia. It also appreciated the Bank’s support during implementation, especially with regards to communication and coordination. At the same time, BaKTI feels that the Bank could have played a stronger role in helping to involve provincial and district government agencies in the design and implementation of the project, and reduce delays in the signing of the Grant Agreement. It also feels that a mid-term review may have been beneficial (see Annex 7 for detailed comments).

The Bank feels that the delay in the signing of the Grant Agreement was largely outside its control (and attempted to minimize delays by the two-step arrangement described in Section 1.3), but acknowledges that the project would have benefitted from stronger Bank support in communicating with sub-national governments. The Bank concurs with the need for a mid-term review but would like to point out that the July 2013 mission was timed to review the performance of the project between two milestones (the completion of the training and the preparation of refresher training).

**(b) Cofinanciers/Development Partners**

No comments were raised by other development partners.

**(c) Other partners and stakeholders**

The Ministry of Home Affairs, which was responsible for the implementation of PNPM Rural, and the Ministry of Villages, Disadvantaged Regions and Transmigration, which will implement a successor program, consider the Barefoot Engineers projects as an effective means to reduce facilitator shortages. The latter Ministry is considering to develop a training program similar to BE-III.

## Annex 1. Project Costs and Financing

### (a) Project Cost by Component (in US\$ Million equivalent)

Component	Appraisal Estimate (US\$ million)	Actual/Latest Estimate (US\$ million)*	Percentage of Appraisal
(1) Conduct Training and Mentoring	3.41	2.46	72%
(2) Monitoring and Evaluation	0.21	0.44	205%
(3) Providing Supervision and Implementation Support	0.53	1.12**	211%
<b>Total Project Costs</b>	<b>4.15</b>	<b>4.02</b>	<b>97%</b>

\* Provisional figures (minor differences may arise between these data and final grant closing data)

\*\* Does not include US\$0.07 million of costs of supervision and implementation support costs directly incurred by the Bank

### (b) Financing

Source of Funds	Appraisal Estimate (US\$ millions)	Actual/Latest Estimate (US\$ millions)*	Percentage of Appraisal
PNPM Support Facility (Grant)	4.15	4.02	97%
<b>Total Financing</b>	<b>4.15</b>	<b>4.02</b>	<b>97%</b>

\*Provisional figures (minor differences may arise between these data and final grant closing data)

## Annex 2. Outputs by Component

This annex summarizes the outputs of the project, and is largely based on a review of the achievements of the outcome and intermediate results indicators mentioned in the PAD (see Table A2.1 for a complete overview of targeted and achieved values for KPIs).

**Part 1: Conduct Training and Mentoring.** This component financed the provision of:

- Training course. In July 2012, a team consisting of provincial and district government officials and BaKTI staff selected 300 participants (209 men and 91 women) from a long list of nearly 1,600 applicants; about 70% of the selected trainees were original Papuans and remainder consisted of transmigrants. Selection was based on a written test and an interview. The actual training was delivered by fifteen trainers of BaKTI and Universitas Cenderawasih from October 2012 to March 2013 (UNCEN also provided class rooms and other facilities). Students participated in the course on a full-time basis and were given full boarding. Ten persons did not complete the course, mainly because of family circumstances. All of the remaining 290 participants graduated (consisting of 208 and 82 women). The provincial governments hired 287 of the 290 graduates within two months from completing the course, and deployed most of their recruits immediately in sub-districts with technical facilitator vacancies. By the end of December 2014, 206 of the recruits were still employed as technical facilitators, indicating a retention rate of 72% (lower than the target of 90%).
- Mentoring. Upon completion of the training course, 186 of the 290 graduates (or 64% of the total) were rated by BaKTI as being unable to work as technical facilitator without some form of external support. This support was provided in the form of mentoring. From June 2013 to November 2014, 11 mentors from PNPM Rural provided on-the-job training to weaker facilitators, usually for a period of 5-10 days per visit. Each mentor was responsible for a “mentoring area” covering about 20-25 sub-districts based on their proximity to target areas. The purpose of the mentoring was to train District Technical Assistants to consolidate their capacity to carry out work in the field. The regions included several districts in: Jayapura, Timika, Yahukimo, Biak, Nabire, Manokwari, Fakfak and Sorong.
- Refresher training. In the first quarter of 2014, BaKTI delivered refresher training to 357 BE graduates in three sessions (one session each for BE-I, BE-II and BE-III graduates). Each refresher training session lasted 12 days, with ten days allocated to technical training and two days to non-technical matters. All training materials were certified by the project’s mentors. In the fourth quarter of 2014, the implementing agency also organized two consolidation trainings of four days each, covering each of the 11 “mentoring areas”. The purpose of these trainings was to provide technical training tailored to the specific needs of a mentoring area.

**Part 2: Monitoring and Evaluation.** This component supported the preparation of:

- Progress reports and supervision missions. PSF prepared quarterly progress reports to monitor the project’s performance against the indicators in the results framework and undertook regular supervision missions.
- Beneficiary surveys. In-depth evaluation was supported by: (i) a tracer study designed to identify the current occupation of previous BE graduates, and, (ii) a technical

evaluation of the quality of infrastructure constructed with facilitation of BE graduates (see Annex 5 for details).

**Part 3: Providing Supervision and Implementation Support.** Through this component, BaKTI financed incremental activities needed to facilitate the implementation of Parts 1 and 2. These activities largely consisted of the day-to-day management of the project, including financial administration, contracting of consultants, procurement of goods, provision of training of local BE-III managers and community facilitators. The Recipient also financed independent financial audits of project expenditures incurred in 2013 and 2014. The audit report for both 2013 and 2014 received an unqualified opinion from the auditor.

**Table A2.1: Key Performance Indicators**

No	INDICATORS	Target	Achievement (31 Dec 2014)
<b>PDO LEVEL RESULT INDICATORS</b>			
1)	Number of qualified technical facilitators provided by the project to PNPM Rural/ RESPEK Program in the provinces of Papua and West Papua	270	290 <sup>a</sup>
2)	Percentage of qualified female technical facilitators provided by the project to PNPM Rural/RESPEK Program in the provinces of Papua and West Papua	20%	28%
3)	Percentage of infrastructure sub-projects rated good quality	62%	50% <sup>b</sup>
<b>INTERMEDIATE RESULTS INDICATORS</b>			
<b>Component 1</b>			
a)	Number of participants trained	300	290
b)	Percentage of women participate in the training	≥30%	28%
c)	Retention of barefoot engineer program graduates by PNPM Rural in Papua and West Papua	243	206 <sup>c</sup>
d)	Number of facilitators who receive two-week refresher training	270	357
<b>Component 2</b>			
a)	Final course report	Completed	Completed
b)	Tracer study of BE graduates	1	1
<b>Component 3</b>			
a)	Unqualified financial audit	Audit	Audit

Source: Project MIS System, except where noted otherwise

<sup>a</sup> The provincial governments of Papua and West Papua hired 287 of 290 facilitators trained by the project.

<sup>b</sup> Source: A Technical Evaluation of PNPM-RESPEK Infrastructure Built by the Barefoot Engineers Technical Facilitator Training Program in Papua (Akatiga Social Analysis, 2015).

<sup>c</sup> Status as of December 31, 2014 based on provincial government records.

### Annex 3. Economic and Financial Analysis

The project co-financed investments in capacity building of high school graduates, who would provide technical facilitation to the construction of small-scale infrastructure in villages across Papua and West Papua. Because most of the benefits of such investments cannot be measured in monetary terms, it was not deemed useful to estimate indicators such as NPVs or EIRRs (FIRRs were not applicable in any case, given that the project exclusively financed non revenue-generating subprojects). Following Bank guidelines, the economic benefits of the project were therefore analyzed with respect to: (i) the project development objective—which was considered highly appropriate—and (ii) unit rate norms, to show to what extent the project represented the least-cost way of attaining its stated objective.<sup>8</sup>

Studies indicate that the net economic benefits of community-driven development projects are substantial, especially because such projects are highly cost-effective.<sup>9</sup> In many villages in Papua and West Papua, these benefits are not realized (or are not realized to the fullest possible extent) because these villages do not have access to qualified technical facilitators. The project provided 287 technical facilitators, of whom 206 were still employed by the provincial governments of Papua and West Papua by the end of 2014 (a retention rate of 72%, lower than the target of 90%). Because each graduate covered about five villages, and because villages in the participating provinces receive about IDR 300 million (or US\$25,000) in infrastructure grants from PNPM Rural and PNPM RESPEK, the facilitators helped increase the economic benefits of infrastructure spending of over  $(200 \times 5 \times 25,000 =)$  US\$25 million per year. This suggests that even a modest increase in the economic benefits would be sufficient to justify the one-time investment of about US\$4 million (see Annex 1 for detailed project cost estimates). It should be noted, however, that the efficiency of the project would have been higher if the provincial governments had managed to improve the retention rate and the central government had taken steps to avoid the (presumably) temporary unemployment of facilitators in the first half of 2015.

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<sup>8</sup> In accordance with section 4 of *OP 10.04 - Economic Evaluation of Investment Operations* (Sep 1994).

<sup>9</sup> See, for example, *Laporan Akhir Studi Skala Kecil Analisis Manfaat Ekonomi Proyek Infrastruktur PNPM Mandiri Perdesaan* (PNPM Support Facility, July 2012).

## Annex 4. Grant Preparation and Implementation Support/Supervision Processes

### (a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
<b>Preparation</b>			
Susanne Holste	Lead Social Development Specialist	GSURR	Task Team Leader (at preparation)
Zulfi Novriandi	Operations Analyst	GSURR	Procurement
Unggul Suprayitno	Senior. Financial Management Specialist	GGODR	Financial Management
Achmad Ali	Operations Analyst	GSURR	Financial Management
Griya Rufiane	Operations Analyst	GSURR	Operations
Melinda Good	Senior Counsel	LEGES	Legal
<b>Supervision /ICR</b>			
Susanne Holste	Lead Social Development Specialist	GSURR	Acting PSF Manager
Sonya Woo	Senior Operations Officer	GSURR	Task Team Leader (at supervision)
Sentot Surya Satria	Senior Social Development Specialist	GSURR	Operations
Ahsan Ali	Lead Procurement Specialist	GGODR	Procurement
Yash Gupta	Senior Procurement Specialist	GGODR	Procurement
Lily Hoo	M&E Specialist	GSURR	Monitoring and Evaluation
Juan Martinez	Senior Social Scientist	GSURR	Social Safeguards
Achmad Zacky Wasaraka	Procurement Analyst	GGODR	Procurement
Zulfi Novriandi	Operations Analyst	GSURR	Procurement
Unggul Suprayitno	Senior. Financial Management Specialist	GGODR	Financial Management
Hanggar Irawan	Financial Management Analyst	GSURR	Budget & Disbursement
Ani Himawati	Operations Analyst	GSURR	Social Safeguards
Favio Chaves	Consultant	GENDR	Environmental Safeguards
Franciscus Prahastanto	Operations Analyst	GSURR	Operations
Robert Anders Anderson	Operations Officer	GSURR	Operations (Papua)
Joseph Pieter Seumahu	Operations Analyst	GSURR	Operations (Papua)
Yoseph Lucky	Consultant	GSURR	Facilitation and Training
Octaviera Ratna Herawati	Consultant	GSURR	Monitoring
André Oosterman	Consultant	GSURR	ICR Author

**(b) Staff Time and Cost**

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	US\$ Thousands (including travel and consultant costs)
<b>Preparation</b>		
FY12	6.0	18.7
FY13	4.0	12.5
<b>Total:</b>	<b>10.0</b>	<b>31.2</b>
<b>Supervision/ICR</b>		
FY13	6.0	29.6
FY14	6.0	29.9
FY15	10.2	50.3
<b>Total:</b>	<b>22.2</b>	<b>109.5</b>

Note: Amounts in the table apply to time charged to the Bank-executed Trust Fund for BE-III. Additional time and cost spent on preparing and supervising BE-III was charged to other trust funds.

## Annex 5. Beneficiary Survey Results

**Overview.** Component 2 of the project financed two surveys: a tracer study designed to identify the current occupation of previous BE graduates, and an evaluation of the quality of infrastructure constructed with facilitation of BE graduates. This Annex presents the conclusions and recommendations of both studies.

### Beneficiary Survey #1:

- Title: Monitoring and Evaluation Report BaKTI Barefoot Engineers Training
- Prepared by: unknown (at the request of BaKTI)
- Issued in: April 2013

**Results of tracer study.** A first objective of the study was to establish, *inter alia*, whether BE-I and BE-II graduates (disaggregated by gender) work for PNPM or have another job in Papua. As shown in Table 4 of the report (which is reproduced below), the vast majority of BE-I graduates no longer works for PNPM. For BE-II graduates, the situation is different in Papua (where over 80% continues to work for PNPM) from West Papua (where the share is less than 25%). These conclusions apply to both male and female graduates. For those who no longer work for PNPM, their reported occupation is either unknown or unemployed.

Province	Status <sup>b</sup>	BET I	Disaggregated by gender		BET II	Disaggregated by gender	
			Male	Female		Male	Female
Papua	Graduates	158	121	37	72	52	20
	Work with PNPM	20	15	5	61	45	16
Papua Barat	Graduates	70	43	27	34	28	6
	Work with PNPM	7	2	5	8	7	1

Source: Monitoring and Evaluation Report BaKTI Barefoot Engineers Training (2013)

**Results of evaluation of assess effectiveness of BE-III.** The second objective of the report was to review The consultant will review the course methodology, curricula, monthly trainer evaluations, and use feedback from trainers and students to make recommendations how to improve the training. Chapter 5 of the report rated the result and achievement and relevance of the training as “highly satisfactory”, the effectiveness “satisfactory” and its sustainability “moderately satisfactory”, although the report does not describe the basis for arriving at these ratings. It states that BE-III “has BET III has performed satisfactory in the project effectiveness due to the PNPM acceptance to BET III graduates”, but does not explain why acceptance is deemed equivalent to effectiveness.

## Beneficiary Survey #2:

- Title: Technical Evaluation of PNPM-RESPEK Infrastructure Built by the Barefoot Engineers Technical Facilitator Training Program in Papua
- Prepared by: Akatiga Centre for Social Analysis
- Issued in: 2015 (no month given)

**Conclusions and recommendations of Beneficiary Survey #2** (as reported by Chapter 4 of the report).

### “ 4.1 Conclusion

This study found that 74% of surveyed PNPM-RESPEK infrastructure projects are other excellent quality (21%), good quality (34%), or sufficient quality (19%). The remaining 26% were of poor or insufficient quality. Failures occurred for many reasons, including: lack of detail in initial surveys; design not suitable to the location; minimum distances between various components of infrastructure did not fulfill the SNI; the price of materials; availability of water sources; accessibility; lack of supervision and facilitation quality of FTs; lack of local human resources including TPKK and *tukang*; disputed land; and conflict.

The study shows that there is no marked difference in the quality of infrastructure between subdistrict assisted by BEIII technical facilitators, regular technical facilitators, or no technical facilitators. In almost all conditions, the proportion of infrastructure with acceptable quality (Sufficient, Good, and Excellent) was higher than those of unacceptable quality (Insufficient and Poor). In sub-district with BEIII technical facilitators, there was a higher proportion of infrastructure rated excellent quality when compared to sub-districts with regular technical facilitators. And subdistricts with no technical facilitators were still able to produce infrastructure of acceptable quality.

Although BEIII technical facilitators still encountered difficulties, especially in ToS and design drawings, the planning system for infrastructure under PNPM-RESPEK was efficient, and the support structure in place for BEIII graduates helped them produce designs and budget plans of comparable quality to regular technical facilitators; this was assessed through design drawing/ template archives, and expenditure reporting. With supervision from technical *faskab*, and in the absence of extreme factors affecting the implementation of infrastructure such as violent conflict, or the severely poor quality of TPKK and *tukang*, BEIII technical facilitators performed to the same standards as regular technical facilitators.

BEIII technical facilitators were aware of their relative inexperience and this led them to proactively seek guidance and assistance from technical *faskab*, colleagues, and friends. BEIII technical facilitators, particularly those with PNPM background (former village facilitators or TPKK) were more active in seeking consultations on designs and budget plans with technical *faskab* as well as experienced TPKK or skilled *tukang*.

BEIII facilitation still requires special attention, especially at the supervision of implementation stage where many issues arise, including local conflicts and/ or changes to the design made by TPK or *tukang*. At this stage, regular supervision and continued facilitation must occur so that problems are fixed as they occur. The quality of facilitation at these stages needs to be emphasized during specialized trainings.

Although the study found that the majority of TPKK were of good quality, when they and *tukang* faced (or sometimes created) problems, facilitation from social and technical facilitators, with *Faskab* assistance, must occur: facilitation and problem-solving do not end with the start of implementation. Community conflicts were more difficult to solve and the ability of facilitators to overcome these issues when they put projects in jeopardy was limited at best. And with their burden of work- facilitating project allocations from two funding streams every fiscal year, completing and reporting upon projects, travelling to distant compulsory meetings- they do not have time to take on additional tasks. Hopefully the upcoming village law block grants will learn from the lessons PNPM has to offer and create a new supportive structure for that project's facilitators.

## **4.2 Recommendations**

BEIII produced skilled technical facilitators to fill a chronic human resources gap in Papua, and supported them with mentoring and training. These graduates are successes especially when paired to experienced TPKK and *tukang*.

### **4.2.1 Barefoot Technical Facilitators**

The BEIII training program could be improved in effectiveness through the following proposed amendments: (1) Improving the quality of BE teachers/trainers and selecting those with substantive experience in PNPM, particularly in Papua; (2) involving regular technical facilitators who have proven teaching skills, in order for them to share their experiences with problems and solutions to the myriad problems graduates will face; (3) instituting a training curriculum which puts more emphasis on hands-on training/practice, using a good variety of templates and infrastructure types; and (4) modules and trainings related to facilitation and effective communication as well as negotiation with village actors, especially TPKK. A more in-depth study is required to look into the effectiveness of the initial residential training modules. This recommendation emerged from interviews with various informants, including BEIII technical facilitators, technical *faskab* and technical specialists.

### **4.2.2 Technical**

- Technical facilitators must ensure the presence of clean water sources for “wet” infrastructure, considering the depth of ground water surface, the distance to the water source, and the soil conditions. This is to prevent infrastructure from losing function due to the absence of clean water. Further, facilitators must discuss with TPKK and the community the most suitable place for such infrastructure, and not allow for projects to be built in areas where the project will ultimately fail. *Faskab* must also ensure the presence of clean water in building “wet” infrastructure. When there was infrastructure with survey data that did not include the presence of clean water, the *Faskab* must provide a special note of consideration and disallow the building of the proposed infrastructure until a clean water source can be guaranteed;
- The hardening of roads should be an important part in road construction, especially in opening new roads with soft ground surfaces. This process was often missed in the construction project as the cost of hardening is relatively expensive and requires heavy

machinery. Facilitators must be able to explain to the community the importance of the hardening process. Road pioneering without this process should be disallowed;

- The study found drain channels with sidewalls higher than the ground surface, meaning that water cannot enter the drain channels and remains puddled. To avoid such occurrence, facilitators must ensure that drainage channels occur according to the design and local conditions. In addition, facilitators must ensure that water can flow easily into the channels. Building special channels in the form of input pipes or special channels along the “dam” within determined distances can also mitigate this;
- Facilitators must ensure that the distance between septic tanks and wells meet SNI standards, to avoid well pollution. When the community decides a location, the *Faskab* can assist in explaining to the community about the minimum distance required between wells and septic tanks; and
- The price of materials is a common problem in Papua, especially in the highlands. This often results in design modifications after the project has begun. For areas which have poor accessibility and expensive transport costs, local material should be prioritized in the design stage. Lastly, *Faskab* or specialists should create templates for infrastructure using wood.”

## **Annex 6. Stakeholder Workshop Report and Results**

Not applicable.

## Annex 7. Grantee's ICR and Comments on Draft ICR

### (a) Grantee's ICR.

In April 2015, the Grantee submitted a 96-page project completion report to the Bank.<sup>10</sup> The summary of the report and the chapters lessons learned are copied below.

#### Summary

“There are now three generations of Technical Education and Training Program (Diklat) Technical Cadre graduates. Generation I, graduated over 2002-2003; Generation II, over 2008-2009, and Generation III, over 2012-2013. The first and second programs were implemented by LPPM (Lembaga Penelitian dan Pengabdian kepada Masyarakat / Institute for Research and Community Service) of Cenderawasih University (Uncen) and backed by the World Bank, while the third, better known as Barefoot Engineering Training III, which was also backed by the World Bank, was implemented by a partnership between the BaKTI Foundation (Bursa Pengetahuan Kawasan Timur Indonesia / Eastern Indonesia Knowledge Exchange) and the Institute of Research and Communication Centre of Cenderawasih University.

The Barefoot Engineering Training III project was carried out over approximately 2 and half years (from July 2012 to December 2014). The series of activities carried out could be broadly divided into three phases:

**Phase I** comprised preparatory activities, covering: Recruitment (formation) of a Project Executive Team; Initial Coordination to determine the criteria for the Education and Training (Diklat -Pendidikan dan Training) candidates and implementation schedule; Preparation of Training Modules for the recruitment and selection process, graduation specifications and participant registration.

**Phase II** comprised the Education and Training (DIKLAT) implementation: Diklat Implementation over 6 months using local content learning materials; Basics of Civil Engineering, and Program learning materials; final Selection; Meeting for Mapping of District Technical Assistants (PDT—Pendamping Distrik Teknik) Location; Closure, Signing of Assignment Letter (SPT—Surat Perintah Tugas) and Mobilization of the District Technical Assistants to the work location.

**Phase III** encompassed follow-up activities in capacity building, involving: Technical Mentoring on the field, from June 2013 to November 2014; Mentoring Supervision; Refresher Training and Regional Based Consolidation Training.

Several routine Workshop Coordination and Evaluation Meetings were held over the two and half years, at the end of each course of activity, in view of discussing issues relating to the activities that had been carried out, as well as those activities that were about to be implemented. These issues included identifying challenges that had arisen during past activities and rectification measures that needed to be taken in the future.

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<sup>10</sup>Program Implementation Report Barefoot Engineering III. BakTI. 2015

Output generated by the implementation of Barefoot Engineering Training III:

1. Graduation of 290 Education and Training (Diklat) participants (208 men and 82 women) who were then recruited by Papua and West Papua Working Units (Satker/Satuan Kerja) as Facilitators / District Technical Assistants (PDT—Pendamping Distrik Teknik).
2. The capacity of District Technical Assistants who were alumni Technical Cadres I, II, and III improved after Mentoring, Refresher and Consolidation Training.
3. Progress was made in the fieldwork program and the number of village infrastructures that were established rose due to the presence of on-field District Technical Assistants (PDT).

Based on the Data on the District Technical Assistants (PDT) up to the end of 2014, there are 47 cadres or approximately 16% of total number of technical cadres who were Barefoot III graduated who were working in Papua and West Papua provinces have terminated their assignments due to various circumstances.

Mentoring and guidance during fieldwork, in addition to sustained communication to provide encouragement and motivation for the District Technical Assistants, proved to be successful in increasing their level of knowledge and capacity, as well encouraging them to pursue working and dedicating themselves to the service of the community in Papua and West Papua. With regard to sustainability, monitoring and mentoring, as well as sustained communication with the technical assistants needs to be taken seriously by program managers in the two provinces, where technical issues needing solutions call for close cooperation between District Mentors on the technical, empowerment, and financial levels. In addition, in relation to strengthening the capacity of District Technical Assistants to deal with their work on the field, their involvement in activities for capacity strengthening needs to be based on a regional level, or by linking them up with neighboring locations facing identical problems. This will allow for more focused management and results that are more easily measured.”

## **Lessons**

“Over the two and a half years that the program was managed by BaKTI, there were many challenges faced in its process that related to technical operational matters as well as policy. These matters called for a quick and accurate response, to make sure the program could run smoothly. Despite this, due to good communication and coordination, as well as the support of the different parties, the program was able to be successfully concluded. There were many lessons that BaKTI learned from implementing this program, beginning from the preparatory phase and over the Education and Training Program's (Diklat) 6 month implementation, as well as mobilizing the participants:

1. Involvement of the National Program for Community Empowerment (PNPM), in this case, the Village Empowerment Agency (BMBK), the Working Unit (Satker) and Papua Provincial Consultant Coordinator Team, as well as the team for West Papua, Resource Monitoring and Control VII (RMC VII) and National Management Consultant (NMC) right from the start and over each phase of the program was very

much an asset to the smooth implementation of the program. Informal communication and coordination is very important for maintaining harmonious relations, as well as a means of updating information on program developments, enabling consultations on different issues and discussing solutions to challenges and problems that are encountered.

2. Use of all media means of publication, both formal (print, electronic, letters/official notification) and informal, using networks that are already available on the field, is all of great use in reaching out to recipients of information right up to those living in locations that are far afield and isolated. This method was used for disseminating the recruitment of participants, alerting participants who had passed, as well as for summoning District Technical Assistants (PDT) for training.

3. There is need to initiate agreement on the rules of the game /code of conduct that must be agreed on by all parties for the program to run smoothly; however, enforcement/consistency in implementing this agreement is a must to ensure smooth implementation. During the implementation process, the Team experienced several problems linked to the discipline of participants and instructors. These problems were finally solved by using firmness in abiding by the agreement that had been made at the start.

4. Tight monitoring over activity implementation both in classes and on the field is very helpful for identifying obstructions calling for swift handling, while at the same time maintaining the quality of the implementation program, ensuring it goes according to plan and that the results that are being sought are achieved. For example, to know how much of the material had been absorbed and the level of the participants' capacity, periodic learning evaluation tests must be carried out relating to basic materials that have been presented. During the Education and Training (Diklat), 18 evaluations were carried out. Apart from learning evaluations, the Committee also held monthly evaluations through evaluation forms that had to be filled by the participants. The goal was to get feedback from the participants to facilitate quality improvement.

Some of the feedback from the evaluations was:

- The learning materials were very useful, however the achievement level was below target;
- Teaching methods needed to be improved and simplified for the participants to more easily understand;
- The learning materials should be presented in sequence and analyzed up to their completion;
- The design and Budget (RAB) materials needed to be more detailed to enable participants to understand;
- Instructors should teach more slowly and not chase targets so that participants can gain a proper understanding;
- The instructors' ability was satisfactory; however they needed to be more patient, be willing to share their experience and be ready to guide; and
- Participant's participation was not active enough. There were still many participants who could not understand but were too shy to ask questions;

- Lessons on arithmetic and practical application needed additional time; and
  - Participants wished to be assisted by instructors during the practical applications, so that mistakes could be rectified on the spot.
5. Not all matters in the implementation process could be carried out according to the standards that had been set. Many matters, both operational and technical had to be adjusted to a local context, and use local resources for the activities to go ahead.
  6. Strengthening and increasing the technical capacity of participants was more successful and more focused when region-based, where training was better controlled/disciplined, more focused and more measurable. From observing the implementation of the refresher and consolidation training, it could be seen that:
    - Training carried out in large groups that were concentrated in one place with numerous participants had a strong potential for creating both technical and non-technical issues, particularly when it came to the discipline of participants.
    - Differences in experience as well as technical issues facing District Technical Assistants were very varied and very similar in the same region. Standardization was exactly what turned the District Technical Assistants of Generation I and II participants off and bored them. This in turn influenced their behavior and upset discipline during training. For these reasons, it is best for training to be held separately and to be carried out in each province.
  7. The integrity and solidity of the implementation team is an absolute necessity for the success of a program. From the experience of supervising over two and half years, it was found that the Barefoot III Team had integrity and strength; however, in some matters, mainly relating to observing technical administrative matters according to Standard Operational Procedures (SOP), the team lacked cohesion and there were even several clashes between members of the team that should not have occurred. This occurrence was due to some members of the team having joined the cooperation without having followed the set recruitment procedures, and were thus unaccustomed to working according to Standard Operational Procedures that were tightly disciplined.
  8. To avoid obstacles as described above, it would be better that programs be implemented by a single institute, which would allow for all team members to be recruited through a proper process that abides by the same SOP. This would avoid tug of war and complications in carrying out roles, where some play more of an active role and others do very little, but must always be taken into consideration in all matters relating to the program.
  9. Aside from the excellent support provided by PSF-World Bank in making the program successful up until today, for better success in the future, communication and coordination on the national level with RMC, NMC and/or Development of Village Communities (PMD – *Pembangunan Masyarakat Desa*) should be carried out by PSF-World Bank, to encourage more active involvement and prop up policy support so that permission can be granted to the Provincial Consultant Coordinator (*korprov*) and District Assistants (*penkab*) more easily.
  10. Following the recommendations of independent Monitoring and Evaluation, Technical Evaluation, as well as observation over the length of the implementation

program, there is a need to put more emphasis on lessons in facilitation skills, not only from the point of view of theory, but also through simulation or practical application using examples that resemble real field situations. This is important for equipping the District Technical Assistants with better ability for community organization, community facilitation and community mobilization in the face of challenges arising on the field relating to social, cultural and other non-technical matters that call for the negotiation skills and the self-confidence needed to convince the community.

11. Lessons using an Adult Learning (POD –*Pendidikan orang dewasa*) approach that is more participative is the better choice for achieving higher quality results in optimal assimilation of learning materials. To meet this requirement in the future, training should be carried out with a maximum of 25 persons and managed by 2 instructors having good facilitation skills in dealing with adult learning right from the start of the program.”

**(b) Grantee Comments on Draft ICR**

In June 2015, the Bank submitted the draft ICR to BaKTI. No substantive comments were provided in response by BaKTI. However, clarification was sought regarding the Bank’s assessment of redressal measures that could have been taken by BaKTI regarding student complaints mentioned in Sections 2.2 and 5.2

## **Annex 8. Comments of Cofinanciers**

Not applicable.

## Annex 9. List of Supporting Documents

- *Country Partnership Strategy for Indonesia FY2009-2012*. World Bank. August 2008.
- *Standard Conditions for Grants made by the World Bank out of Various Funds*. World Bank, February 2012.
- Project Information Document. World Bank. October 2012.
- *Laporan Akhir Studi Skala Kecil Analisis Manfaat Ekonomi Proyek Infrastruktur PNPM Mandiri Perdesaan*. PNPM Support Facility. July 2012.
- *Technical Evaluation of Infrastructure – PNPM-Rural & Other Funding Sources*. PNPM Support Facility. July 2012.
- *Project Paper for Small RETF Grant (US\$4,153,500 equivalent) to the Republic of Indonesia for a Barefoot Engineers III Project*. World Bank. October 2012.
- Grant agreement (original). World Bank. October 2012.
- *Country Partnership Strategy for Indonesia 2013-2015*. World Bank. December 2012.
- Quarterly progress reports. BaKTI. 2012-2014.
- Grant agreement (amended). World Bank. February 2013.
- Aide Memoire. World Bank. July 2013.
- Implementation Status Reports (various). World Bank. 2013-2014.
- *Monitoring and Evaluation Report of Barefoot Engineers Training*. BaKTI. 2013.
- *Program Implementation Report Barefoot Engineering III*. BaKTI. 2015.
- *A Technical Evaluation of PNPM-RESPEK Infrastructure Built by the Barefoot Engineers Technical Facilitator Training Program in Papua*. Akatiga Social Analysis. 2015.



# INDONESIA

- CITIES AND TOWNS
- PROVINCE CAPITALS
- ⊕ NATIONAL CAPITAL
- ~ RIVERS
- MAIN ROADS
- RAILROADS
- PROVINCE BOUNDARIES
- - - INTERNATIONAL BOUNDARIES

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- PROVINCES:**
- |                            |                        |                      |
|----------------------------|------------------------|----------------------|
| 1 NANGGROE ACEH DARUSSALAM | 12 JAWA BARAT          | 23 KALIMANTAN TIMUR  |
| 2 SUMATERA UTARA           | 13 JAWA TENGAH         | 24 KALIMANTAN UTARA  |
| 3 RIAU                     | 14 D.I. YOGYAKARTA     | 25 SULAWESI UTARA    |
| 4 SUMATERA BARAT           | 15 JAWA TIMUR          | 26 GORONTALO         |
| 5 JAMBI                    | 16 BALI                | 27 SULAWESI TENGAH   |
| 6 BENGKULU                 | 17 NUSA TENGGARA BARAT | 28 SULAWESI BARAT    |
| 7 SUMATERA SELATAN         | 18 NUSA TENGGARA TIMUR | 29 SULAWESI SELATAN  |
| 8 LAMPUNG                  | 19 RIAU KEPLUALIAN     | 30 SULAWESI TENGGARA |
| 9 BANCKA-BELITUNG          | 20 KALIMANTAN BARAT    | 31 HALUKU UTARA      |
| 10 BANTEN                  | 21 KALIMANTAN TENGAH   | 32 HALUKU            |
| 11 D.K.I. JAKARTA          | 22 KALIMANTAN SELATAN  | 33 PAPUA BARAT       |
|                            |                        | 34 PAPUA             |

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