EASTERN INDONESIA ROAD IMPROVEMENT PROGRAM

INDEPENDENT PROGRESS REVIEW

FINAL REPORT

15 February 2012

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Abbreviations

Abbreviation	Meaning
ACAP	Anti-Corruption Action Plan
AIDS	Acquired immunodeficiency syndrome
AIP	Australia Indonesia Partnership
APBN	*Anggaran Pendapatan Belanja Negara* (National Budget)
AusAID	Australian Agency for International Development
BoQ	Bill of Quantity
CSE	Chief Supervision Engineer
DGH	Directorate General of Highways
EINRIP	Eastern Indonesia Road Improvement Program
EMU	EINRIP Monitoring Unit
FED	Full Engineering Design
FIDIC	*Fédération Internationale des Ingénieurs-Conseils* (International Federation of Consulting Engineers)
GoA	Government of Australia
GoI	Government of Indonesia
HIV	Human immunodeficiency virus
ICR	Independent Completion Report (EINRIP PPC)
IndII	Indonesia Infrastructure Initiative
IG	Inspectorate General (of MPW)
IPR	Independent Progress Review
LARAP	Land Use and Resettlement Action Plan
MPW	Ministry of Public Works
NGO	Non-Governmental Organization
NOL	No objection letter
PAP	Project Affected Person
PAS	Procurement Advisory Services

Abbreviation	Meaning
PC	Procurement Committee
PIP	Project Implementation Plan
PMSC	Project Management Support Consultants
PMU	Project Management Unit
PPC	Project Preparation Consultants
PPK	Pejabat Pembuat Komitmen
QA	Quality assurance
RSC	Regional Supervision Consultants
RSE	Regional Supervision Engineer
RSEU	Road Safety Engineering Unit
SSE	Site Supervision Engineer
TFAC	Technical and Financial Audit Consultants
ToR	Terms of Reference
VAT	Value added tax
VO	Variation order

Executive Summary

The EINRIP Program

The Eastern Indonesia Road Improvement Program (EINRIP) is financed by an AUD 300 million loan to the Government of Indonesia (GoI), with the objective of supporting economic and social development in the Eastern Indonesian Region. It consists of 20 sub-projects in nine provinces, of which 19 are road sections with a total length of nearly 400 km, and one is a bridge replacement program. The program is administered by the Directorate General of Highways (DGH) with AusAID oversight and support being provided by the EINRIP Monitoring Unit (EMU). AusAID have committed a further AUD 31 million for project preparation, monitoring and project related technical assistance. Construction started in February 2009. The program schedule has been revised, and the initial loan closing date of 01 June 2011 has been extended to 31 March 2013, but the program cannot realistically be finished before August 2014.

Innovative features of the program include (a) the use of full engineering design (FED), prepared by international project preparation consultants (PPC); (b) improved design standards: 20 year pavement design life, 6 m carriageways, improved alignment and drainage; (c) introduction of FIDIC[1] contracts, using independent consultants as supervising engineers; (d) independent technical and financial audit consultants (TFAC); (e) design safety audits; and (f) a long-term monitoring and evaluation (M&E) program.

Independent Progress Review

AusAID have commission this Independent Progress Review, approximately half-way through the program, to assess progress and the effectiveness of safeguards and the impact on DGH's governance and capacity, and to make recommendations to improve coordination and accountability mechanisms.

Progress

The program is behind the revised schedule, with 38% completion against a programmed 46%. Total expenditure to end October 2011 was AUD 112 million. By the current scheduled loan closing date of 31 March 2013 only 15 of the 20 sub-projects will be complete, and total expenditure will be around AUD 260 million. Extending the loan closing date to August 2014 would permit all 20 sub-projects to be completed, and would increase total expenditure to AUD 285 million. The reasons for the failure to keep to the revised schedule include delays in procurement and land acquisition, the inability of some contractors to mobilize on time or to maintain the contract time schedule, and the slow internal DGH processes for the approval of variation orders (VO).

Performance

Preparation

Project preparation by PPC (which included engineering design, land acquisition planning, and specification of environmental safeguards) was well done. The designs were to a generally high standard and should result in more durable roads and lower life-cycle costs. Environmental safeguards were appropriately designed, but the contractors have not fully implemented them, with the failure to control dust and dispose of waste properly being major problems. Four of the roads were subjected to safety audits before designs were completed; the remaining roads were audited by the Road Safety Engineering Unit (RSEU) in DGH, assisted by Vic Roads. The land acquisition process, which was implemented by the DGH Project Management Unit (PMU) with the assistance of the Project Management Support Consultants (PMSC), must be considered a success; all project affected persons were identified and compensated, with no evidence of diversion of funds.

[1] *Fédération Internationale des Ingénieurs-Conseils* (International Federation of Consulting Engineers)

Procurement

Procurement was carried out by local procurement committees (PC), with the assistance of an international consultant providing procurement advisory services (PAS) in accordance with the Anti-Corruption Action Plan (ACAP). Procurement generally went well, though there were some delays attributable to the inexperience of the PCs. The ACAP seems to have been effective, in that no breaches have been confirmed. However, it also prohibited pre-bid conferences, which meant that there was no opportunity to clarify to the contractors the implications of the FIDIC contracts and importance ascribed to the quality of construction. Partly as a consequence, all the successful bids were significantly below the owner's cost estimates, and the resulting financial constraints have affected the ability of contractors to build to specification.

Monitoring

Monitoring and support arrangements are generally working well. EMU has provided effective technical support to AusAID, has developed a good working interface with DGH, and has been active in efforts to keep the program to time and quality. The TFAC have provided useful checks on the performance of the contractors and the Regional Supervision Consultants (RSC). The long-term M&E program is well designed and performance to date has been satisfactory.

Quality Concerns

The quality of construction is a cause for concern. TFAC have identified serious failings in construction practices and quality and report that the RSC is not effective in ensuring that the contractors comply with specification. Further, corrective actions agreed between TFAC, DGH, RSC and the contractors following TFAC site visits are not being fully implemented. It is clear that the RSC is not performing satisfactorily, but it should also be noted that DGH does not demonstrate a clear concern for quality, and is failing to provide the RSC with the necessary support. In particular, local DGH representatives (PPK) frequently undermine the RSC by giving direct instructions to contractors, and DGH refuses to delegate any authority to the RSC to approve even minor VOs.

Conclusions and Recommendations

EINRIP is compliant with AusAID's overall objectives, particularly with regard to GoA/GoI partnership, where an effective, if occasionally difficult, working relationship has been established. Despite delays and the quality problems, the program can be expected to deliver roads built to a significantly better standard than before.

The principal recommendations of the IPR are:

- The loan closing date should be extended to August 2014, to enable the program to proceed smoothly without DGH having to procure additional funds, and to ensure that AusAID safeguards and supervision arrangements remain in place;
- The RSC has performed poorly and, provided the loan is extended, should be replaced. This should be done within the terms of the loan agreement, using DGH systems, to be consistent with the objective of strengthening local capacities and ownership. A more effective RSC is likely to be more expensive, and AusAID should be prepared to finance the additional cost from the unspent portion of the loan;
- DGH should review the RSEU road safety audits and prepare a program of corrective actions, which AusAID should consider funding from the balance of the loan;
- The long-term M&E program should be extended from 3 to 5 years after the completion of the program; and
- AusAID should seek agreement with DGH on a program of maintenance for the EINRIP roads.

More general recommendations include the wider use of independent TFAC style audits and, in this regard, support for the Inspector General in the Ministry of Public Works; streamlining of DGH procedures for handling VOs; support to the RSEU; and consideration of support for the construction industry. Finally, in the event of a future AusAID loan, the PAS recommendations on improvements to procurement practices should be adopted, PPC services should be retained for assistance with design issues during construction, and safety audits should be carried out on all roads before the designs are finalized.

1 Introduction

1.1 Context

The Australian Agency for International Development (AusAID) in partnership with the Government of Indonesia (GOI) administers the Australia Indonesia Partnership (AIP). The AIP's goal is to support Indonesia to achieve sustainable poverty alleviation by delivering the development outcomes outlined in Indonesia's Medium Term Development Plan.

The loan for roads originated from the AUD 1 billion package of assistance offered by the Government of Australia (GOA) to Indonesia immediately following the Indian Ocean tsunami in December 2004. The GOA has committed AUD 300 million in loan funding for a negotiated program of national roads improvement through EINRIP to support 20 improvement projects in 9 provinces in Eastern Indonesia. A further AUD 31 million of AusAID grant funding has been allocated for project preparation, design, monitoring and project-related technical assistance.

The EINRIP loan program is implemented by the Directorate General of Highways (DGH or Bina Marga). The stated objective of EINRIP is "to support regional economic and social development in eastern Indonesia by improving the condition of the national road network."

The total National Indonesian roads network is about 38,600 km. The major focus of EINRIP is upgrading certain road corridors which have been reclassified as National Roads from Provincial or non-status roads, of which there are some 4,300 km in Eastern Indonesia. The primary and initial aim of the program was to improve approximately 400 km of these links to an acceptable standard of service and accessibility, to provide the infrastructure essential to support regional enterprise, productivity and growth.

1.2 The EINRIP Program

The program consists of 19 packages of road improvements, totalling 397 km, spread over eight provinces in Eastern Indonesia, together with a small bridge replacement project in a ninth. See Table 1. Eighteen of the packets are under implementation. Bids have recently been submitted for the final two packages, and land acquisition is underway.

The civil works road and bridge improvements include:

- Road alignment and grade improvements
- Pavement reconstruction, drainage and roadside furniture
- Road widening to a 6m minimum standard
- Bridge and culvert replacement/repair/installation of fabricated steel trusses for priority new bridges.

The project design identified the need for a number of measures aimed at improving project quality, sustainability and governance. These included:

- Improved project planning and preparation, including Final Engineering Designs (FED) for all projects rather than "simplified design"
- Improved procurement processes and increased transparency and accountability
- Strengthened and independent construction supervision and quality control processes that emphasise the responsibility of contractors
- An independent program of technical and financial audits (the TFAC consultants) of project worksites and contractors
- A long-term program of monitoring and evaluation based on periodic surveys extending 3 years beyond the end of construction to assess the effectiveness of the EINRIP approach by assessing road durability and other factors.

Table 1: EINRIP Roads

Road Sections		Length	Estimated Cost at Completion	
		km	AUD m	IDR bn
Loan Allocation			**268.0**	
Bali				
EBL-01	Tohpati – Kusamba	10.8	23.8	202.2
EBL-02	Tohpati - Kusamba Stage 2	8.2	23.6	200.8
West Kalimantan				
EKB-01	Pontianak – Tayan	31.5	19.7	167.7
NTB Sumbawa				
ENB-01AB	Sumbawa Besar Bypass	11.2	9.4	80.2
ENB-01C	Pal IV - Km 70	31.8	19.7	167.8
ENB-02	Km 70 - Bts. Cabdin Dompu	14.1	9.5	81.0
ENB-03	Bts. Cabdin Dompu - Banggo	23.6	16.2	137.5
NTT Flores				
ENT-01	Ende – Aegela	15.6	17.9	151.8
South Kalimantan				
EKS-01	Martapura - Ds. Tungkap	18.9	12.4	105.4
EKS-02	Banjarmasin - Bts.Kalteng	12.9	14.5	123.2
North Sulawesi				
ESU-01	Molibagu - Mamalia - Taludaa (bridges only)		6.5	55.4
Central Sulawesi				
ESH-01	Lakuan – Buol	16.2	14.2	120.6
South East Sulawesi				
ESR-01	Tinanggea - Kasipute	33.8	17.9	152.4
ESR-02	Bambaea – Sp. Kasipute	23.9	13.8	116.9
South Sulawesi				
ESS-01	Sengkang-ImpaImpa-Tarumpakkae	24.2	13.8	117.2
ESS-02	Bantaeng - Bulukumba	26.9	17.1	145.0
ESS-03	Janeponto - Bantaeng	25.8	13.1	111.1
ESS-04	Bulukumba - Tondong	20.7	13.2	112.2
ESS-05	Bulukumba - Tondong	20.0	13.9	118.4
ESS-06	Bulukumba - Tondong - Sinjai	24.5	17.3	147.1
	Total	**394.6**	**307.5**	**2,614.2**

Notes:
1. Anticipated project cost includes GoI contribution
2. Exchange Rate used: AUD 1 = IDR 8,500.

The loan agreement provides for total expenditure of AUD 300 million. The Government of Indonesia (GoI) is responsible for paying import duties and Value Added Tax (VAT), and contributes a further 11% to the costs of the works. The loan agreement was amended on 9 June 2011 and the breakdown of the loan amount by category is as follows:

Loan Components by Value

	AUD
Civil works	268.0
Goods (bridge trusses)	5.0
Operating Costs	0.7
Consulting (PAS, PMSC & RSC)	26.3
Total	**300.0**

The first packages went out to tender in November 2008; work on the first contract started in February 2009. The program was initially expected to be complete by February 2011. The original loan closing date of 1 June 2011 has been extended to 31 March 2013, though the latest assessment of the completion date for all the packages is now August 2014.

1.3 Objectives of the Independent Progress Review

The broad objectives of the Independent Progress Review (IPR) are given in the Terms of Reference (ToR) in Annex 1 as:

- To evaluate the progress of the civil works implementation and provide recommendations for improving the effectiveness of coordination mechanisms and accountabilities among the key EINRIP stakeholders to help address progress and quality of civil works implementation over the remainder of the loan period.
- To assess the operational effectiveness of the loan safeguards framework, including social and environmental, technical and financial audits, anti-corruption measures and HIV-AIDS Awareness components.
- To undertake analysis of the impact upon DGH of the governance and capacity building aspects of EINRIP to date, and comment on some broader program planning and management questions

1.4 Team Composition and Activities

The members of the IPR team were:

Hatim M. Hajj	Team Leader
Mark Barrett	AusAID Infrastructure Adviser
Graham R Gleave	Infrastructure Evaluation Specialist
Farida Zaituni	Social and Environmental Specialist

After reviewing background documentation provided by AusAID in advance of the mission, the team commenced work in Jakarta on 21 November, 2011. Interviews were carried out with all major stakeholders, including notably AusAID, Directorate General of Highways (DGH), the Regional Supervision Consultants (RSC) and contractors. Annex 2 lists the organizations and persons met by the team. The team obtained and reviewed a wide range of additional documentation, including monthly reports prepared by the Project Management Support Consultants (PMSC), the RSC and the EINRIP Monitoring Unit (EMU). Annex 3 lists the documents and reports received by the team.

Most of the team's work was carried out in Jakarta, but a visit was made to the RSC offices in Makassar and to two projects in South Sulawesi (ESS 02 & ESS 03). In addition, the social and environmental specialist visited ESS-04, ESS-05, and ESS-06. The team completed its investigations and presented its initial findings and an aide memoire by 02 December, 2011. The Draft IPR Report was delivered on 15 December 2011. Comments from AusAID and DGH were received in late January 2012 and have been taken into account in the preparation of this Final IPR Report.

2 Progress of EINRIP Program

2.1 Preparation

Project preparation was carried out by PMU assisted by URS Australia P/L Consultants, the Project Preparation Consultants (PPC). PPC commenced work on March 15, 2006 and completed on 30 April, 2009.

The screening process to select the roads to be included in EINRIP involved an overlarge program of surveys, and it would have been more efficient if there had been an agreed basis for focusing attention on those roads most likely to be included in the program. However the final program is generally satisfactory in that it (a) contributes effectively to major corridor development; (b) the average sub-project size is relatively large which helped attract better contractors, and makes it easier to administer and to supervise construction.

In all, 24 sub-projects[2] underwent full engineering design by an international consultant, which led to higher quality outputs than have been obtained in the past by the use of local consultants supervised and coordinated by a foreign consultant. The designs incorporated widening, better alignments, and pavement structures with a longer life span (and possibly lower life costs). Further, considerable attention was devoted to improving drainage, an issue which has traditionally been neglected in Indonesia. The quality of bid documents was also improved.

Four of the sub-projects were subjected to traffic safety audits during the preparation phase and the results were incorporated in the engineering designs. The remaining 16 sub-projects received safety audits during implementation by the Road Engineering Safety Unit (RSEU) in DGH with the assistance of an expert from Vic Roads, which was financed by an IndII grant.

The safeguards (environment, land acquisition and resettlement, and indigenous people) were well handled and the studies produced by PPC were of high quality. However, it was left to the Project Management Support Consultant (PMSC) to complete the environmental studies and to oversee the land acquisition process.

The performance of the PPC was evaluated by an independent review team and the Independent Completion Report (ICR) was issued on November 25, 2009. Generally the ICR found that PPC had performed satisfactorily. Overall, the IPR team concurs with this conclusion, and believes that project preparation effectively incorporated the lessons learned from past and on-going operations of other donors to the road sector (especially the World Bank through its recent operations under Eastern Indonesia Region Transport Projects 1 and 2 and the Strategic Roads Improvement Project).

PPC were not retained to provide assistance during implementation. However, the loan program provided funds for any additional design work to be undertaken by the RSC.

2.2 Procurement

2.2.1 Procurement Advisory Consultants and Procurement Committees

Procurement was carried out by locally based Procurement Committees (PC). AusAID provided loan assistance (under category of Implementation Support) to hire a Procurement Advisory Services (PAS) Consultant to assist the PCs and to increase transparency and accountability. The PAS started work in 2008 and completed in November 2010. Overall, the PAS performed satisfactorily.

[2] The final program includes only 20 sub-projects, as four had to be abandoned because of the difficulties of land acquisition.

The PAS provided training to the PCs. However, there were still problems with procurement, as misunderstandings as to procedures persisted. In many cases, bid documents prepared by the PCs were incomplete, due to missing pages and formatting errors.

It is evident that many contractors did not fully appreciate what the use of FED implied for their activities, as all the winning bids were substantially below the owner's estimate, some as little as 70%, and on average less than 80%.

2.2.2 Anti-Corruption Action Plan

The anti-corruption action plan (ACAP) developed for EINRIP is being followed. It provides increased transparency and easy access to information. Many of its provisions have been incorporated in the project design, such as employment of a procurement advisory services (PAS) consultant to help in the procurement process and reduce chances for corruption. No breaches of procurement have been discovered and only one complaint was lodged, and was satisfactorily handled. However, corrupt practices are endemic in Indonesia, and it would be optimistic to assume that an absence of complaints proves an absence of corruption.

One unfortunate feature of the ACAP was the prohibition of pre-bid conferences, as it was believed that this would reduce the likelihood of collusion. It is obviously difficult to demonstrate whether it did, in fact, reduce collusion, but the lack of pre-bid conferences meant that there was no formal opportunity to explain to the contractors exactly what FED required of them.

2.3 Program Management

2.3.1 Introduction

EINRIP is a loan program, so DGH is executing agency, and employs contractors and the supervision engineers as well as the PMSC. Contracts and variations to contract are only eligible for loan funds when AusAID issues a no objection letter (NOL). AusAID provides technical and administrative support, both through loan and grant, coordinated through the EMU

An innovative feature of the program is the use of the FIDIC[3] contract, which gives additional responsibilities to the supervision engineer to approve work for payments. However, the supervision engineer has no power to approve variation orders without the approval of the employer (DGH). Supervision services are being provided by Egis-BCEOM Consultant in association with 3 local consulting firms.

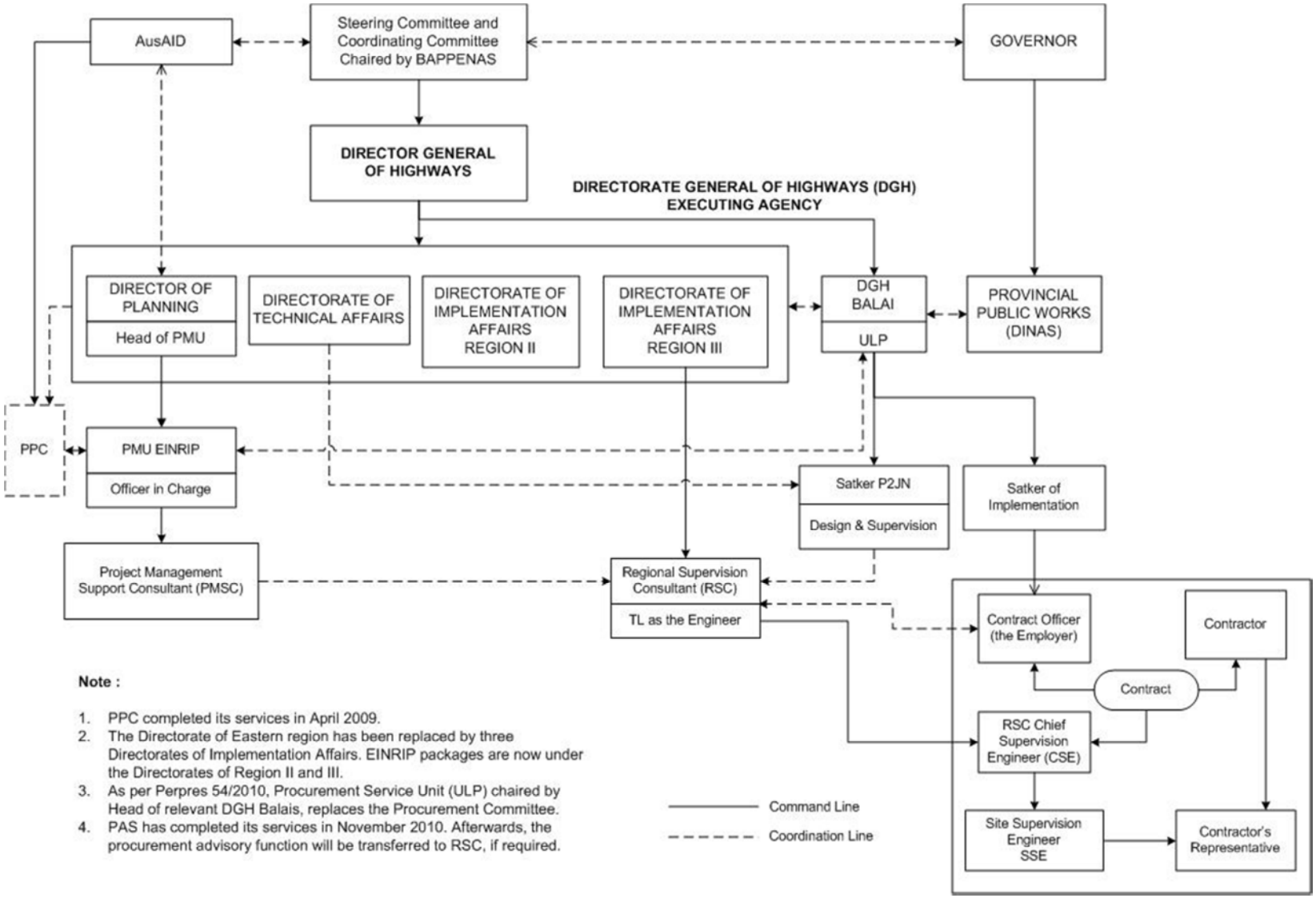
2.3.2 EINRIP Management Structure

The construction companies are contracted to the local Pejabat Pembuat Komitmen (PPK), the Contract Officer, who is authorized to act on behalf of the DGH. Each PPK will run one or two packages. The PPK is the point of contact with DGH for the contactor and the first point of contact for the supervision consultant.

The PPKs report to a Satker of Implementation, each of which deals with DGH works in a part of a province. The Satkers in turn report to the Balai, regional organizations that cover a number of provinces. The Balais are at the same administrative level as the Directorates in Jakarta, and report to the Director General of DGH.

[3] *Fédération Internationale des Ingénieurs-Conseils* (International Federation of Consulting Engineers)

Figure 1: EINRIP Management Structure



The RSC was originally contracted to the Directorate of the Eastern Region. Following the internal reorganization of DGH, this role was taken over by the Directorates of Implementation Affairs (Wilayahs), Regions II and II, which are responsible for managing the RSC, both financially and technically.

The Project Management Unit (PMU), which is located in the Directorate of Planning, was responsible for preparation of the project and is responsible for monitoring project status and preparing financial reports as well as control of program cost and period of implementation. It is the main channel of communication with AusAID. The PMU is assisted by the Project Management Support Consultants.

The estimated cost of PMSC services until the completion of EINRIP is AUD 8.5 million.

2.3.3 EMU

The principal role of the EINRIP Monitoring Unit (EMU) is to provide technical support to AusAID in dealing with the program, and to act as the interface between DGH and AusAID. It has also actively identified areas where additional technical resources would be beneficial for project implementation, notably in the promotion of the safety audits carried out by RSEU.

EMU was set up in August 2008 and has two international professional staff and three local professional staff dealing with engineering, land acquisition and financial monitoring. For the first 2 years of operation, the unit also had the services of a local procurement specialist.

The total costs of EMU from August 2008 through to April 2012 are estimated to be AUD 2.5 million.

2.3.4 RSC

The Regional Supervision Consultant (RSC) is responsible for supervising the work of the contractors and ensuring that it complies with specifications and follows good engineering practice. An international consulting company, Egis-BCEOM has been employed as RSC.

The RSC main office is in Makassar, with a staff consisting of:

- International team leader (the Engineer)
- Local deputy team leader
- Two international quality / pavement / materials specifications engineers
- One international bridge engineer. He is not yet in place although he has been needed for more than 17 months
- One international environmental and social specialist
- Other local professional staff consisting of advisory specialists, senior laboratory technicians / managers, pavement / materials engineer, 2 environmental specialists, a coordinator and monitor of HIV / AIDS campaign

In addition, the chief supervising engineers (CSE) are based in Makassar and make regular visits to project sites (with the exception of Sumbawa, where the CSE is resident). Initially, there were three international CSEs and three local, but all CSE positions are now international, though at the time of writing, only five positions were filled.

The site supervision engineers (SSE), who are responsible for day-to-day operations, are project based and have their own offices on site. They are local staff supported by local quality engineers and laboratory technicians, inspectors and surveyors

The total costs of the RSC operations, through to project completion, are estimated to be approximately AUD 19 million.

2.4 Progress and Performance

2.4.1 Overview

The program has suffered significant delays, partly due to land acquisition and procurement and partly to slow mobilization and operations by the contractors. The project cannot be completed by the current loan closing date of March 31, 2013. In addition, the TFAC reports have raised serious concerns about the quality of the contractors' work and the quality of the supervision.

2.4.2 Current Status and Expected Completion Date

At end October 2011, total expenditure was AUD 112 million out of loan total AUD 300 million. Overall percentage completion is 38%, against a programmed 46 %.

By the time the loan closes (March 31, 2013), five packages will be unfinished (including the two just about to be let: ES-05 and ES-06). See Table 2 below for further details. The disbursements from the loan would be around AUD 260 million, which means that AUD 40 million will be unspent and the physical targets under the loan would not have been met.

Based on the status of implementation of the on-going 18 packages, and assuming that works on the two contracts which have been recently let out (bids have already been received) will commence on 01 March 2012, it is expected that all packages would be completed by August 2014. If the loan closing date is extended to this date, about AUD 285 million would be disbursed, leaving about AUD 15 million in the loan unspent.

Table 2: Contracts Expected to be Incomplete at Loan Closure (March 31, 2013)

No	Reference	Province	Road Section
1	ENT-01	NTT – Flores	Ende – Aegela
2	ESS-03	South Sulawesi	Janeponto – Bantaeng
3	ESS-04		Bulukumba – Tondong (1)
4	ESS-05		Bulukumba – Tondong (2)
5	ESS-06		Bulukumba – Tondong – Sinjai (3)

2.4.3 Sources of Delay

Land acquisition

The Loan Agreement required that all land had to be acquired before contractors could start work. This was a time consuming and detailed process. The preparation of the Land Acquisition and Resettlement Action Plan (LARAP) was carried out by the PPC, and took 3 to 4 months. Most were completed in 2008 or early 2009.

The major delays took place in the payment process, there being two main reasons:

a. Land has to be acquired through local government processes, but for national roads, central government must provide the funds. Central government was initially reluctant to do so.
b. Payments had to be made directly to project affected people (PAP), into bank accounts, which took time to set up.

The average delay between the approval of the LARAP and the preparation of evidence of payments was 239 days. There were then further delays before the evidence of payment was presented to AusAID for the issuing of the NOL, averaging 70 days. See Table 4 below.

Procurement

There is some anecdotal evidence of delays in the procurement process, between the approval of the design and the opening of bids. This was due to lack of familiarity of PCs of what was required regarding completeness of bid documents and lack of authority to nominate the responsible party to correct deficiencies. Also, the time allocated between issuance of NOL for contract award from AusAID and approval of contract by DGH was often exceeded. However, the delays were not excessive.

Field engineering and variation order approval

Every civil works contract under EINRIP was subjected to a variation order (VO). On mobilization, the contractor has to validate the design as appropriate for the site conditions and drawings and bill of quantities (BoQ). The contractor then prepares a VO and submits it in the first instance to the RSC. Further approvals from the PPK, the Satker and DGH are then required. This can take up to 12 months to complete, which is excessive, and necessitates time extensions for contracts, delays project completion and frequently involves increases in total project costs.

It seems that the concepts of variation orders and design changes as provided for under the bid documents, which follow FIDC procedures, are not well understood by the various parties, especially the Contractors and the PPKs. In particular, the RSC is not allowed the normal degrees of freedom in agreeing VOs (especially small value VOs) directly with the contractor in the interest of keeping the job moving, and work has often been delayed while VOs are submitted for approval irrespective of the size of the VO.

Contractor performance

Contractors have also contributed to delays. Although some of the bigger contractors in Indonesia won many of the contracts for civil works, it seems that the work is done by their provincial units (not head offices). Some of the work is subcontracted to local contractors, who are often weak and lack technical skills and equipment, and the main contractor is not providing adequate supervision. Often, the contractors did not mobilize qualified management, or provide adequate working capital or appropriate equipment in sufficient numbers.

“Show cause meetings” did not prove effective in getting contractors to take required actions to reduce delays and speed up construction. Besides time delays, work by contractors sometimes did not meet the specifications and non-conforming works were approved and paid. The contract provides remedies to make the contractor follow the time schedule. But, these were not applied by the RSC or the Client. It seems there is reluctance to apply sanctions to contractors.

2.4.4 Quality

The road construction sites inspected by the IPR team (ESS-02 and ESS-03 in South Sulawesi) demonstrated little attention to quality assurance (QA) work practices with the “business as usual” model being implemented by the RSC and Contractors. This is consistent with the findings reported by the PMSC Quality Assurance Specialist and TFAC.

There is little doubt that the contractors working on EINRIP are capable of good quality work, as the same contractors are working on high-rise building construction and road projects in Jakarta that appear to be constructed to much higher standards. However, on the ENIRIP roads, the contractors are sometimes not following the designs and sometimes fail to meet the specifications. The problem is compounded by the ineffectiveness of the site supervision, and the reluctance of the RSC to apply the sanctions under the contract.

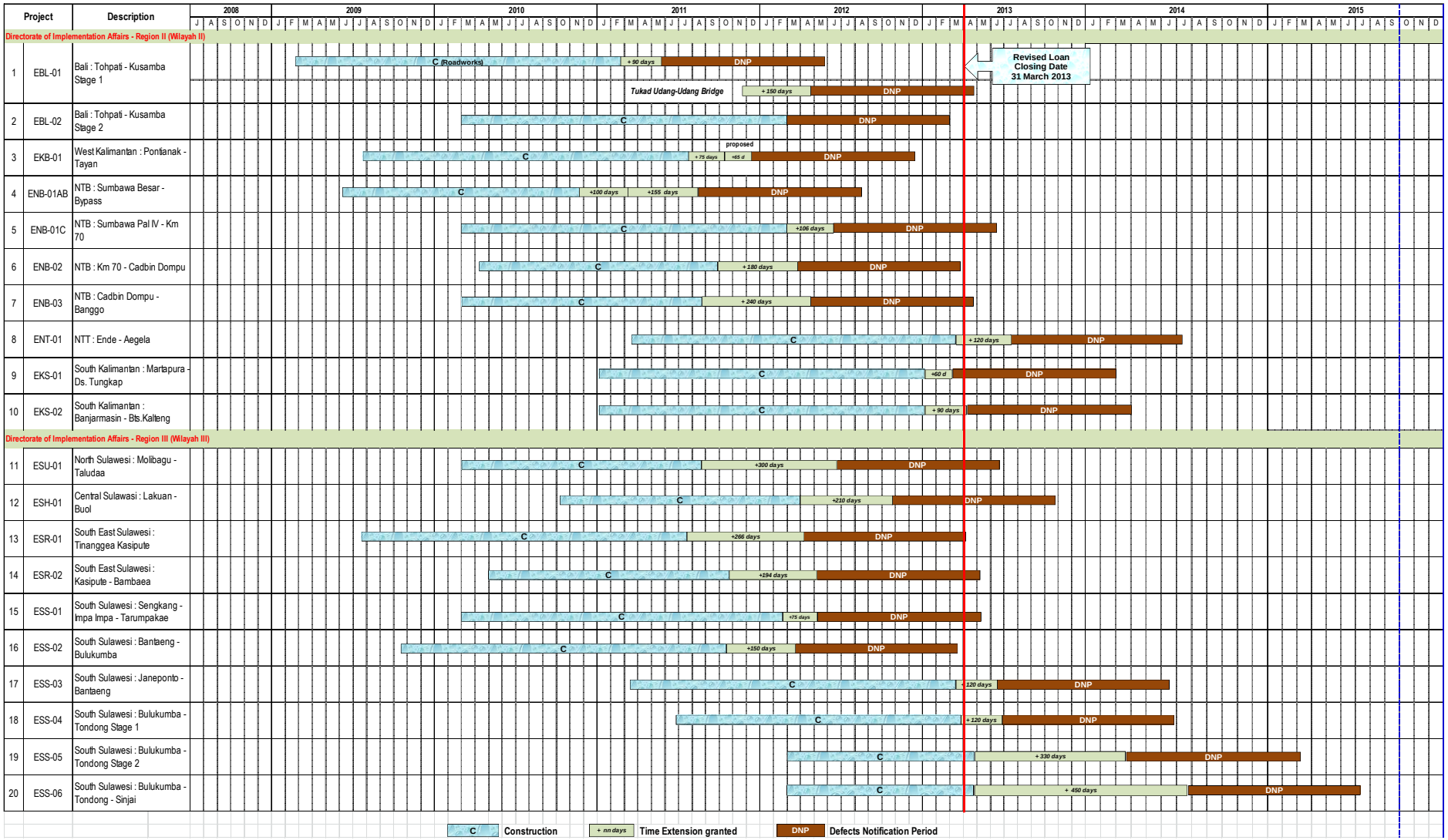
Table 3: Key Dates for Civil Works Packages

Package No.	Location	Bid Opening Date	Date of Commencement	Bid to Commence-ment (days)	Original Time for Completion	Extension (days)	Revised Time for Completion	Completion Date ORIGINAL	Completion Date EXPECTED	Defects Notification Period	End of Defects Period EXPECTED
EBL-01	Bali : Tohpati - Kusamba (Roadworks)	19-Sep-08	25-Feb-09	159	730	90	820	24-Feb-11	25-May-11	365	24-May-12
	Tukad Udang-Udang Bridge (lifting suspension)		21-Nov-11		150	0	150		18-Apr-12	365	18-Apr-13
EBL-02	Bali : Tohpati - Kusamba Stage 2	26-Aug-09	1-Mar-10	187	730	0	730	28-Feb-12	28-Feb-12	365	27-Feb-13
EKB-01	West Kalimantan : Pontianak - Tayan	29-Oct-08	24-Jul-09	268	730	140	870	23-Jul-11	10-Dec-11	365	9-Dec-12
ENB-01AB	NTB : Sumbawa Besar Bypass	3-Nov-08	5-Jun-09	214	540	255	795	26-Nov-10	8-Aug-11	365	7-Aug-12
ENB-01C	NTB : Pal IV - Km 70	4-Aug-09	1-Mar-10	209	730	106	836	28-Feb-12	13-Jun-12	365	13-Jun-13
ENB-02	NTB : Km 70 - Bts. Cadbin Dompu	4-Aug-09	6-Apr-10	245	540	180	720	27-Sep-11	25-Mar-12	365	25-Mar-13
ENB-03	NTB : Bts. Cadbin Dompu - Banggo	25-Aug-09	1-Mar-10	188	540	240	780	22-Aug-11	18-Apr-12	365	18-Apr-13
ENT-01	NTT : Ende - Aegela	2-Sep-10	17-Mar-11	196	730	120	850	15-Mar-13	13-Jul-13	365	13-Jul-14
EKS-01	South Kalimantan : Martapura - Ds. Tungkap	27-Apr-10	3-Jan-11	251	730	60	790	1-Jan-13	2-Mar-13	365	2-Mar-14
EKS-02	South Kalimantan : Banjarmasin - Bts.Kalteng	27-Apr-10	3-Jan-11	251	730	90	820	1-Jan-13	1-Apr-13	365	1-Apr-14
ESU-01	North Sulawesi : Molibagu - Mamalia - Taludaa	4-Jun-09	1-Mar-10	270	540	300	840	22-Aug-11	17-Jun-12	365	17-Jun-13
ESH-01	Central Sulawesi : Lakuan - Buol	27-Jan-10	7-Oct-10	253	540	210	750	29-Mar-12	25-Oct-12	365	25-Oct-13
ESR-01	South East Sulawesi : Tinanggea - Kasipute	5-Nov-08	13-Jul-09	250	730	266	996	12-Jul-11	3-Apr-12	365	3-Apr-13
ESR-02	South East Sulawesi : Bambaea – Sp. Kasipute	22-Jul-09	30-Apr-10	282	540	194	734	21-Oct-11	2-May-12	365	2-May-13
ESS-01	South Sulawesi: Sengkang-Impalmpa-Tarumpakkae	11-Jun-09	1-Mar-10	263	720	75	795	18-Feb-12	3-May-12	365	3-May-13
ESS-02	South Sulawesi : Bantaeng - Bulukumba	6-Nov-08	15-Oct-09	343	730	150	880	14-Oct-11	12-Mar-12	365	12-Mar-13
ESS-03	South Sulawesi : Janeponto - Bantaeng	6-Nov-09	17-Mar-11	496	730	120	850	15-Mar-13	13-Jul-13	365	13-Jul-14
ESS-04	South Sulawesi : Bulukumba - Tondong	21-Sep-10	28-Jun-11	280	640	120	760	28-Mar-13	26-Jul-13	365	26-Jul-14
ESS-05	South Sulawesi : Bulukumba - Tondong	22-Nov-11	1-Mar-12	100	420	330	750	24-Apr-13	20-Mar-14	365	20-Mar-15
ESS-06	South Sulawesi : Bulukumba - Tondong - Sinjai	22-Nov-11	1-Mar-12	100	420	450	870	24-Apr-13	18-Jul-14	365	18-Jul-15
	Averages			240	614	166	780				

Note:
1. Dates in shaded cell assume future time extension.

Source: PMSC and IPR team assessment

Figure 2: Civil Works Progress



2.4.5 Safeguards

EINRIP incorporated safeguards for governance, social and environmental protection, HIV/AIDS awareness. The ACAP is discussed in section 2.2.2 above; the sections below deal with social and environmental safeguards and the HIV program.

Social and environmental safeguards

Social

Table 4 provides the status of environmental studies and land acquisition for each of the 20 sub-projects as of end of October 2011. Land acquisition has been difficult and resulted in delays in implementation. However, the process was well planned and implemented. The project affected persons have been properly compensated and there appears to have been no diversion of funds – a major achievement in governance. Table 5 summarizes total number of affected households, required land areas, committed budget and payments made till October 31, 2011. Land registration is the main remaining issue, but it does not affect implementation. The land acquisition aspects are being monitored by an NGO (Equator) and are paid under the PMSC contract. They have not noted any major problems.

Rapid field visits to ESS-02- ESS-06 by the Social and Environmental Specialist reinforce the findings of the more complete assessments made as part of the 2011 Monitoring & Evaluation (M&E) social surveys in Sumbawa, in that there is general support for the road projects. They provide employment and commercial opportunities during construction and the improved roads are expected to facilitate transport for personal and business purposes.

Environmental

The environmental safeguards were properly planned, but implementation was imperfect. Contractors have failed to control dust during construction, which was found in the M&E surveys in Sumbawa to have led to health problems among those living near the road. There have also been failures in construction waste disposal, with earth and broken asphalt left at the road side. The RSC has been ineffective in requiring the contractors to comply with the safeguards.

It is also evident that the worker health and safety measures identified in the environmental action plan were not in force. Most of the workers do not wear safety devices identified in the environmental action plans (goggles, ear plugs, etc.).

Access

In some locations, the road design did not make adequate provision for access to roadside properties, which was impeded by drainage channels or retaining walls built when the road has to be raised.

HIV/AIDS

The HIV/AIDS program is being implemented by an NGO (Yayasan Kusama Bangsa - YKB) and is coordinated by a qualified researcher (Ibu Tita) from Bandung University. Both are contracted by Egis-BCEOM, the company providing the services of the RSC. The program was late in starting, due to the cash flow problems faced by RSC at the time, but is now progressing well. Its goals are modest and it seems to have succeeded in raising awareness of HIV/ AIDS and related diseases among construction workers (mobile men with money).

Although YKB performed well, the RSC did not appear to take the management of the program seriously. RSC was late in hiring the HIV/AIDS coordinator and Egis-BCEOM failed to submit reports on progress to the PMU.

Table 4: Progress of Environmental Studies and Land Acquisition

No.	Package ID	Link Name	Province / Kabupaten	AMDAL / UKL&UPL		LARAP / SLARAP PREPARATION				LARAP / SLARAP IMPLEMENTATION					
				Environmental Studies Required	Date Approval	Date Approval (Pleno)	Number of Households (Actual)	Land Area to be Acquired (m2)	Estimated Compensation exclude Certification (Rp Million)	Allocated Budget / Actual Payment (Rp Million)	Payment Evidences Received	LA Monitoring Report Submission to AusAID	Delay: LARAP to payment (days)	Delay: Monitoring Report to Submission to AusAID (days)	Outstanding Issue to Resolve
1	EBL-01	Tohpati-Kusamba	Bali/Gianyar	UKL/UPL	Jun-08	Not required	0	0	0	0	-	-			-
2	ENB-01AB	Sumbawa Besar Bypass	NTB/ Sumbawa	UKL/UPL	19-Aug-08	14-Sep-08	349	49,182	3,778	3,644	Dec-08	Feb-09	78	62	Land certification
3	EKB-01	Pontianak-Tayan	West Kalimantan / Kuburaya & Sanggau	Not required	Not required	02-Dec-08	135	37,353	484	394	Jan-09	24-Apr-09	30	113	Land certification
4	ESR-01	Tinanggea-Kasipute	SE Sulawesi/Konsel & Bombana	UKL/UPL	25-Aug-08	30-Oct-08	19	1,548	4	4	Dec-08	26-Feb-09	32	87	Land certification
5	ESS-02	Bantaeng-Bulukumba	South Sulawesi/ Bantaeng&Bulukumba	Not required	Not required	Not required	521	10,602	2,316	2,316	May-09	17-Jul-09		77	-
6	ESS-01	Sengkang-Impa2-Tarumpakkae	South Sulawesi/ Wajo	Not required	Not required	28-Feb-09	1,511	65,461	3,705	2,830	Nov-09	12-Jan-10	246	72	Certification + 7 PAPs in dispute.
7	ESU-01	Molibagu-Taludaa	North Sulawesi/ Boloongmongdow	UKL/UPL	28-Jan-08	22-Oct-08	16	2,383	23	19	Nov-08	Dec-08	10	30	-
8	ESR-02	Bambaea-Kasipute	SE Sulawesi/ Bombana	UKL/UPL	08-Sep-09	19-Mar-09	988	123,565	2,791	396	Oct-09	23-Dec-09	196	83	Land certification
9	ENB-01C	Pal IV-KM 70	NTB/ Sumbawa	UKL/UPL	19-Aug-08	14-Sep-08	749	35,082	2,264	2,574	Oct-09	04-Dec-09	382	64	Land certification
10	ENB-02	KM 70-Cabdin Dompu	NTB/ Sumbawa	UKL/UPL	16-Dec-08	23-Apr-09	91	39,561	139	133	Oct-09	12-Jan-10	161	103	Certification + 4 PAPs not located
11	ENB-03	Cabdin Dompu-Banggo	NTB/ Dompu	UKL/UPL	21-Nov-08	24-Apr-09	184	5,426	634	282	Oct-09	11-Dec-09	160	71	Land certification
12	EBL-02	Tohpati-Kusamba	Bali/Gianyar	Not required	Not required	Not required	0	0	0	0	-	-			-
13	ESS-03	Jeneponto-Bantaeng	South Sulawesi/ Jeneponto &Bantaeng	UKL/UPL	30-Jul-09	01-Apr-09	1,258	29,152	1,791	2,206	25-Feb-11	25-Feb-11	695	0	Land certification + 1 PAP not located
14	ESH-01	Lakuan-Buol	Central Sulawesi / Buol	UKL/UPL: Bridge	02-Mar-09	27-Apr-09	71	14,048	1,113	1,450	Apr-10	17-Jun-10	339	77	Problem of 2 PAPs was
				UKL/UPL: Road	02-Mar-09	03-Dec-09	817	55,398	2,567	500	Apr-10	23-Aug-10	119	144	Land certification
15	EKS-01	Martapura-Tungkap	South Kalimantan/ Banjar	Not required	Not required	21-Nov-08	54	98	79	70	Mar-10	04-Jun-10	465	95	-
16	EKS-02	Banjarmasin-Bts Kalteng	South Kalimantan/ Barito Kuala	Not required	Not required	22-Jan-10	197	3,623	700	716	11-Nov-10	16-Nov-10	293	5	Land certification
17	ENT-01	Ende-Aegela	NTT/ Nagekeo	UKL/UPL	30-Mar-09	30-May-09	231	138,310	2,199	2,057	Apr-10	28-Jun-10	306	88	Land certification
18	ESS-04 *	Bulukumba-Tondong	South Sulawesi/ Bulukumba			20-Jul-10	1,591	77,808	4,280	9,974	21-May-11	16-Jun-11	305	26	Land certification
19	ESS-05 *	Bulukumba-Tondong	South Sulawesi/ Bulukumba & Sinjai	AMDAL	1-Oct-10	20-Jul-10	1,464	83,351	6,112	10,400	2-Dec-11				
20	ESS-06 *	Tondong-Sinjai	South Sulawesi/ Sinjai				936	93,656	4,027	8,500					
21	EKS-03	Jl.A.Yani Martapura-Tungkap	South Kalimantan/ Banjar	UKL/UPL	14-May-09	Pre-Pleno: 25-Mar-09	1,554	22,143	10,982	Pending	-	-			Pleno LARAP
22	EKS-04	Ds Tungkap-Rantau	South Kalimantan/ Tapin	UKL/UPL	10-Apr-09	Pre-Pleno: 25-Mar-09	2,513	167,029	23,401	Pending	-	-			Pleno LARAP
23	EKS-05	Barabai-Mantimin	South Kalimantan/ HST & Balangan	AMDAL	In progress	Pre-Pleno: 1-Apr-09	3,266	187,392	55,570	Pending	-	-			Pleno LARAP & approval of AMDAL
24	EKS-06	Mantimin-Dahai	South Kalimantan/ Balangan & Tabalong			Pre-Pleno: 3-Apr-09	1,912	112,377	29,986	Pending	-	-			
											Average delay (days)		239	70	

Table 5: Land Acquisition Payments (IDR million)

	Total Households	Required Land (sq. m)	Committed Budget		Payment		Remarks
			APBD	APBN	Paid	Outstanding	
Contracted Projects (18 Packages)	8,782	688,600	22,386	15,551	39,966	-	LA Completed except Certification
Remaining Projects (2 Packages)	2,400	177,007	**862**	**23,500**	10,400	8,500	Committed budget is sufficient
Cancelled Projects (4 Packages)	9,245	488,941	-	-	-	-	-
T O T A L	**20,427**	**1,354,548**	**23,248**	**39,051**	**50,366**	**8,500**	

2.4.6 Technical & Financial Audits

TFAC has carried out engineering audits on all the project roads, including core sampling of pavements, materials testing, reviews of documentation and observation of work procedures on site. At the end of each audit, the TFAC hold a meeting with the Engineer, the Contractor and the PPK to reach an agreement on what corrective action need to be taken, which is then signed by all parties. However, contractors often fail to implement the agreed actions, and DGH and the RSC fail to follow up, and many repeat audits show little improvement

TFAC has identified deficiencies in the quality of construction that need rectification. It has clearly shown that poor construction quality of construction is systemic in EINRIP (and probably on all other road construction projects in Indonesia). TFAC's contribution to the identification and, hopefully, eventual correction of construction deficiencies has been found so valuable that a further program of systematic repeat audits is being planned.

TFAC services are financed by AusAID (grant), at a projected cost of AUD2.9 million

2.4.7 Safety Audits

Safety was built into the final engineering designs for all sub-projects. Four of the sub-projects were subjected to design safety audits before designs were finalized. Subsequently, all 16 remaining sub-projects were safety audited by RSEU assisted by Vic Roads. Most of the recommended changes involved relatively low cost improvements to signage and road markings, though a small number of more expensive modifications to side slopes and lane width were also suggested. To date DGH has taken no steps towards implementation of the recommendations of the safety audits.

During implementation, safety problems became evident on some packages (especially EKB-01: Pontianak - Tayan in West Kalimantan, which was partly the result of the contractor's failure to build to the specified alignment). Additional safety audits have been carried out and problems are being rectified.

2.4.8 Monitoring & Evaluation

PMU / PMSC

PMU with assistance of the PMSC also monitors the project, including quality. PMSC staff includes a Quality Assurance expert who carries out such monitoring on monthly basis. However, the recommendations in his reports are not being implemented and AusAID may have to persuade DGH to instruct the RSC and the contractors accordingly.

EMU

EMU activities are discussed under Section 2.3.3 of this report.

Long Term Monitoring and Evaluation

EINRIP includes a long term program of monitoring and evaluation based on periodic surveys extending at least 3 years beyond the end of construction to assess the effectiveness of the EINRIP approach by assessing road durability and other factors. The program is well designed and will be coordinated by Blackheath Economics Limited (paid by AusAID grant). Cardno Emerging Markets Consultants undertakes the collection of data required for this effort (paid by AusAID grant). The ICR has proposed that this monitoring extend to 5 years instead of 3.

3 Findings

3.1 Consistency with AusAID Goals and Objectives

3.1.1 Cross-Cutting Issues

The relevant AusAID cross cutting issues which apply to EINRIP are governance, environment, private sector development, gender and disability. The principal findings in this regard are:

Governance

Governance was addressed through the Anti-Corruption Action Plan, in the use of independent consulting engineers in supervision and approval of works, and in the land acquisition process.

The ACAP was successfully implemented, and increased transparency. It is difficult to see whether it significantly reduced the opportunities for corruption (a more detailed discussion can be found below). The use of independent consulting engineers has not been as successful as originally hoped, partly due to poor performance of the RSC, but also because the PPK has frequently undermined their authority. However, the land acquisition process must be counted a success, as surveys have shown that all project affected people (PAP) were properly compensated and there is no evidence of money being illegally diverted.

Environment

The environmental action plan built in all the necessary safeguards, but the safeguards relating to construction activities were not always followed by the contractors (see section 2.4.5 of this report).

Private sector development

Several private companies and state owned enterprises are working on the program, including contractors, sub-contractors, consultants and suppliers. Private sector development has not been a specific focus of the program, but minor training has been provided and consultants / contractors have been exposed to improved practice such as the use of FED, FIDIC, QA and a regime of internal and external auditing. This training and exposure to improved practices has not been fully effective in developing better quality construction, and a consistent long-term effort will be required if sustainable results are to be achieved.

Gender

The workforce was predominantly male; no efforts were made to promote the employment of women in construction activity. However, in the longer term, it is generally accepted that road development is gender neutral, as it benefits all sectors of society. The social surveys carried out as part of the long-term M&E program confirmed that both men and women perceive road improvements as beneficial.

Disability

Provision for people with disabilities has not been specifically addressed under EINRIP. However, all users including those disabled should benefit through improved design by including Full Engineering Design (FED) for all road projects prior to bidding the project and road safety audits of the design, during construction and on completion of construction. The FED included footpaths, bus stopping areas, improved geometric alignment, safety barriers etc. The road safety measures incorporated in the designs should also help reduce the numbers of road casualties, thus avoiding increasing the numbers of disabled people.

GoI / GoA partnership issues

Overall the relationship between DGH and AusAID appears to be good, although there is some friction concerning the high incidence of audits and perceived interference from AusAID / EMU. In particular, while auditing was generally received as a good initiative, it does bring a level of inspection that some within DGH could interpret as a lack of trust. DGH also felt that the various audits could be better coordinated in order to reduce disruption to work by contractors and RSC. AusAID / EMU must ensure an atmosphere of partnership is promoted in order to keep all parties focused on the positive benefits appropriate checks and balances bring to the program.

3.1.2 Monitoring and Evaluation and Risk Management Approach

Long-term M&E

The structured long term approach taken by the program for Monitoring and Evaluation is a very positive action and should be commended. In order to demonstrate the benefits (or otherwise) of the approach taken under EINRIP, AusAID and DGH need to collect this information and provide the results to the GoA and GoI to justify the program and improve overall knowledge within the industry. The IPR team agrees with the ICR that extending the program from 3 years post completion surveys to 5 years would significantly add to the body of data and improve the reliability of the findings.

DGH have supported the program, through providing data and survey permits, and have demonstrated interest in the findings to date. However there is, as yet, little enthusiasm in DGH for extending this kind of work to other projects.

Risk management

The EINRIP Project Implementation Plan (PIP) provided a very comprehensive and astute assessment of the risks that the program faced. The following major risk areas were identified:

- Design
- Environmental social impact
- Land acquisition
- Procurement
- Implementation
- Construction supervision
- Project management
- Governance
- Exchange rates

Most risks were correctly identified; i.e. have, or might plausibly have, occurred. However, the main impact of risk realization was identified as delays to implementation, rather than quality of output, which in the event has proved to be a major problem. The outcomes can be summarized as:

- Delays to contract awards as a result of poor performance by PCs were correctly forecast, and risk management measures were only partly successful in mitigating the problem. However, no examples of improper behaviour by PC were detected.
- Delays in land acquisition occurred as anticipated – correction required intensive efforts by AusAID.
- Anticipated failure to pay compensation correctly did not occur – possibly as result of AusAID's clear stand, and support from the DGH Social and Environmental Unit.
- Contractor performance was correctly identified as risk factor leading to delays; mitigation measures were only partly successful.
- Two (alternative) risks were identified with respect to the supervision consultant: that they would fail to apply high standards, or that they would apply high standards that were not

accepted by contractor. In the event, the RSC failed to apply standards; the problem was identified, but pressure from PMU, PMSC and EMU has not yet resulted in improvements.
- Collusion between RSC staff and contractors was identified as a risk, and is believed to have occurred (though firm evidence is lacking) – some staff have been dismissed, it is not clear that this action has eliminated the practice.
- Risks associated with Project Management, Governance and Exchange Rates did not materialize.

The broad conclusion must be that correctly identifying risks does not eliminate them and when working through third parties (using government systems), mitigation measures cannot be guaranteed to be effective.

3.1.3 Anti-Corruption Action Plan

The ACAP sets out a framework of activities or measures that should raise the profile of EINRIP and make the procurement and management of individual projects more transparent. Initiatives such as developing a project web site, making information available to communities and utilising the MPW's Semi E-Procurement system, raise awareness of the initiative and "put the spotlight" on projects.

Procurement was reported as being of a good standard with no evidence of collusion reported to the IPR Team. The Procurement Advisory Service (PAS) Final Report details some very good lessons learnt that will form a good background material for future infrastructure works in Indonesia.

The reluctance to hold pre-bid conferences, in order to reduce the opportunity for collusion is understood, but the IPR consider that this should be reviewed. The pre-bid conference gives the opportunity for AusAID and DGH to explain and emphasise the importance to DGH and AusAID of the improved practices that will be enforced under these contracts and the role of the "Engineer" and "Employer". In addition it would give the opportunity to introduce the audit process that will be used to confirm work has been carried out in accordance with the specification.

3.2 Project Preparation

Overall, the IPR team believes that project preparation was well done by AusAID and PMU. It incorporated the lessons learned from past and on-going operations of other donors to the road sector. Design standards and technical specifications were revised and improved. Further, pavement structures with a longer life span (and possibly lower life costs) were adopted. In the opinion of the IPR team, the quality of design is good (though DGH thought the designs of 3 packages to be deficient). Further, the quality of bid documents was improved, and the contracts follow FIDIC procedures.

The monitoring and evaluation mechanisms developed for EINRIP, consisting of the TFAC reports, the operation of the PMU supported by PMSC, environmental and social safeguards, EMU, and the long-term M&E program, were well conceived.

3.3 Application of Final Engineering Design and Durability

The IPR interviews with DGH indicated that the use of FED is now generally accepted within DGH as being a more satisfactory procedure than simplified design, which has become discredited because (a) delays to start-up while designs were being finalized; and (b) potential for cost over-runs, as a result of design changes following site investigations, with the attendant risks of corrupt practices. The innovation in EINRIP was the use of international consultants for all stages of the design. This (a) resulted in better quality design, and (b) exposed large numbers of local engineers to international best practices.

Inevitably, once the contracts were let and field engineering was undertaken, some modifications were necessary. Most were minor, but some major changes were required, including (a) provision for rock cutting on ENB 02/03; (b) additional base material on ESR 02; and (c) removal of utilities on EKS 02.

EINRIP designs are for 20 years (as opposed to current DGH standards of 10 years) and incorporate better geometric standards and drainage provision. Doubts have been raised about the quality of construction work, but it is difficult to argue that standards are worse than on other roads. Indeed, the attention being paid to quality, through the use of the TFAC, which identifies defects so that they may be eliminated, may have inadvertently made EINRIP roads appear worse than others (which do not receive such attention).

It is therefore reasonable to expect that the EINRIP roads will last longer than other roads recently constructed in Indonesia (though perhaps not as long as had been hoped at the outset of the program), but it will not be possible to demonstrate durability until the roads have been used by traffic for several years. The M&E program will provide a medium term assessment of pavement performance and could be extended to follow the roads over a longer period. In the meantime, post-completion audits could be used to compare the strength of pavements constructed under EINRIP with those constructed using other design procedures and funding sources.

3.4 Procurement

Generally and despite some delays, procurement was well carried out and the PAS did a reasonable job. The PAS made a series of recommendations to improve the procurement process, which the IPR team endorses. Details of the recommendations can be found in Section 4.3.

A major problem not identified by the PAS was that most contractors submitted unrealistically low bids to secure the contract. This has meant that contractors find it difficult to follow the required design standards and work practices without compromising the profitability of their operations. Also, it increases the tendency of contractors to submit variation orders.

3.5 Program Management

3.5.1 DGH

PMU and PMSC

PMSC has performed well, providing active support to PMU, which is based in the Directorate of Planning and has responsibility for controlling the cost of the program and ensuring that it is completed on schedule. Nevertheless, the location of the PMU in the DG Planning is in many ways anomalous, as Planning has no direct contractual or administrative link with the implementing units, the PPK, or the Wilayahs. The arrangement has been made to work, but for future projects consideration could be given to moving PMU closer to the department entrusted with implementation.

The QA function in PMSC is useful and should be retained in future contracts. PMSC is responsible for monitoring the RSC, but its recommendations are ignored. This is unlikely to change until DGH, as employer, puts more pressure on the RSC to implement those PMSC proposals it agrees with.

Directorate of Implementation & Balais

Role as Employer

The Directorates of Implementation (Wilayah) of Regions II and III are signatories to the contracts with the RSC, while the Contractors are employed by the PPK, who provide day-to-day management. Neither organization has shown the commitment to assure good performance by the contractor and the supervision consultant. PPKs frequently interfere with the activity of the RSC

and undermine their authority, while the Wilayahs are not giving the necessary support to the RSC through making timely decisions and facilitating travel to site, and are slow to put pressure on the RSC to improve its performance.

DGH, as the employer, has overall responsibility for project quality, and must take any necessary steps to ensure that both the contractors and the RSC perform adequately.

Treatment of Variation Orders

DGH appears to have a negative attitude to variations and design changes. However, variations and design changes are inevitable in civil engineering projects and should not be seen as a failure in design. It is almost impossible to estimate the exact final cost of a civil works contract, and cost estimates are usually prepared by providing realistic contingencies for quantity and price changes and sometimes currency fluctuations (when contract is nominated in more than one currency). In any event, budget constraints should not be allowed to adversely affect the quality of the construction works.

The current contracts require that the Directorate of Implementation approves all variation orders, irrespective of their size or cost. The normal application of FIDIC procedures would streamline the approval process by taking account of the value of the VO (small, medium and large) and devolving decision making responsibility to RSC and PPK/Satker. Further, DGH should accept that design changes are likely to be needed no matter how careful the project preparation, and needs to allocate sufficient funds in the contract of the RSC for design changes or else retain the services of the Consultant who prepared the original designs.

3.5.2 RSC

RSC has performed poorly. He is not implementing fully the quality assurance system which was developed for this project. He is not keeping adequate records. Sometimes work which does not conform to specifications has been approved. Although the number of supervision staff is adequate and all chief supervision engineers (CSE) are expatriate (existing number of 5 will soon be increased to 6, or about one CSE to 3 contracts) some staff are not up to standard, especially the site supervision engineers, inspectors, and field quality technicians. Some of the staff were not paid the minimum monthly wages stipulated in the RSC contract. Further, no allowance is given to attract qualified staff to remote site locations. It seems RSC is not employing qualified staff, is not providing adequate training to his local staff, and is not supervising their work properly.

It is clear that the RSC operates in a very difficult business environment and often the PPK and the contractor undermine the Engineer's authority. However, their performance has been seriously deficient, with serious consequences for the quality of construction. The current RSC contract expires on 15 February 2012, and the RSC will either need to be replaced or their contract extended. AusAID cannot determine the outcome, but DGH cannot proceed until AusAID issues a no objection letter. The following points need to be taken into account:

a. Ideally, the RSC should be replaced by another qualified Consultant. However, recruiting a new consultant by DGH requires 9-12 months after the decision to replace the existing RSC is taken. If the loan closing date (March 2013) is not extended, this option is not recommended as it leaves little time for the new consultant to carry out the services. In this case, it is proposed that DGH and AusAID hold discussions with the management of Egis-BCEOM (lead RSC consultant) and impress on them the need to improve performance of RSC, and agree a list of actions which should be taken and a time line for their implementation.
b. If the loan closing date is extended (to say August 2014), there is sufficient time to recruit a new consultant and provide adequate time for supervising the remaining works. This will send a strong message to all consultants and contractors that DGH and AusAID are serious about quality and that they need to improve their practices and performance.

c. Procurement could be done by either DGH or AusAID. In case DGH does the procurement, AusAID would provide a procurement agent to support the DGH Procurement Committee in procuring the services of a replacement RSC. However, if this activity is carried out by AusAID (through a grant) the procurement process could be completed more quickly, in about 6 months.
d. Finally, either DGH or AusAID could employ the RSC. This possibility is discussed in more detail below.

Current RSC is not replaced

If the current RSC is retained, he must be reprimanded for poor performance and directed to take necessary measures to get improved performance. Egis-BCEOM need to engage fully with their Indonesian associates to ensure that all of the companies understand their responsibilities and contribute fully to the venture. Appropriate arrangements for coordination and planning of the services need to be applied. They must provide and maintain a full complement of staff, who must be suitably experienced and trained. All staff must be aware of contract and quality issues and properly prepare and equipped for carrying out their duties. Appropriate training and refresher programs need to be devised and implemented to ensure staff understand their role and responsibilities in the project and have the technical expertise required. RSC must develop a system for monitoring the performance of their teams and make sure that this is properly implemented. This must include an appropriate response mechanism to any defects or deficiencies identified (such as by TFAC and Quality Assurance of PMSC). Above all, RSC must be clearly reminded that they are not to certify payment for deficient work.

But, the RSC should also be allowed to manage the supervision in accordance with the contract and good international practice. In this regard, DGH needs to remind all PPKs not to direct RSC field teams in technical and contractual matters since those are the responsibility of the RSC. Further, duty travel by RSC personnel for operational purposes should be at the discretion of the RSC team leader and not the PPK. Moreover, DGH must not unreasonably withhold approval of staff deployment and transfers and must ensure that the review and approval process of staff is completed within a reasonable time (such as no longer than 21 days) after CVs of at least two qualified candidates (for a given post) have been submitted. In addition, contract amendments should be prepared and submitted to AusAID for NOL within a specified reasonable time (say 60 days).

To help ensure that agreed actions are producing the desired results, the operations of the TFAC should be intensified. More frequent meetings to review progress and quality issues would be required and the appropriate persons should attend. Further, the six monthly meetings between AusAID and GOI/DGH should tackle issues of quality as needed.

RSC is replaced

DGH as employer

The employment of the replacement RSC by DGH would have the advantage of continuing to work within government systems, and encouraging DGH to retain ownership of the project. It would need be done according to the stipulations of the loan agreement; in particular the appointment of a new consultant would require a NOL from AusAID.

The disadvantage of DGH continuing as the employer of the RSC is that it would be difficult to guarantee that a more qualified and responsible RSC would be hired, because DGH would probably recruit from the narrow pool of international consultants operating in Indonesia. It would be difficult to recruit new international consultants willing to work in Indonesia without accepting a substantial increase in costs. However, the rates paid for the consulting services will inevitably rise if better qualified staff are to be attracted and if appropriate compensation is to be offered for working in remote and isolated locations. The costs of supervision are thus likely to be higher than

normally provided for in DGH/GOI contracts, although the increased cost can still be accommodated within the existing loan.

AusAID as employer

The employment of the RSC by AusAID under grant funding offers two main advantages. Firstly, procurement can be done quicker than if DGH carried it out, and secondly, the pool of interested consultants would be larger. The likelihood of hiring a qualified RSC would be higher and the probability that the quality of works will be improved will also be higher. The cost of the remaining services of the "new" RSC would also be higher, but the cost will be borne by AusAID and not DGH/GOI.

There are, however, some potentially serious disadvantages with this option. The arrangement confuses contractual responsibilities, as an AusAID employed RSC would be approving works (to which AusAID then issues a NOL) for which DGH would have to pay. Further, AusAID would be considered responsible for actions taken by the "new" RSC that might be unacceptable to DGH/GOI. This could complicate project management and sour relations between AusAID and GOI/DGH. Moreover, DGH/GOI would lose the power to manage the loan, which would undermine the main development objective of strengthening GOI institutions and helping ensure that improved practices developed under a loan are applied to GOI's own operations (without donor assistance).

Comparison of RSC options

The RSC performance is at present not acceptable. Retaining the existing RSC and implementing the recommended actions to be taken by both RSC and DGH as discussed above is the easiest and fastest course of action to take. However, the IPR team is not confident that the recommended actions will actually be fully implemented in practice. Hence, the IPR team thinks it is best to replace the existing RSC provided the loan closing date is extended and there is adequate time for procurement of a new RSC. The IPR team also believes that DGH should continue to employ the RSC.

It is probably better that DGH procure the services of the replacement RSC, although it will take longer and improved results are less certain than if AusAID carried out the procurement using grant funding, as DGH will retain full control of management of the loan and long term developmental improvements have a higher chance of sustainability. Further, it will lead to less friction between AusAID and DGH/GOI and a better environment for continued future cooperation. Procurement of RSC by DGH should proceed as quickly and efficiently as possible (once the decision is taken by DGH to replace the existing RSC and AusAID extends its NOL) and procurement can be completed fairly quickly if good will by all is maintained. AusAID can facilitate this process by providing a procurement agent (through grant funding) to assist DGH.

3.5.3 EMU

The IPR team consider that EMU has performed well and provides a useful service to both AusAID and DGH particularly in supporting the efforts to keep the project to time and to quality.

3.5.4 TFAC

The TFAC has performed well and identified deficiencies in quality of construction which need rectification. DGH and the RSC should see to it that the agreed actions are implemented and necessary variation orders (if needed) are issued quickly. This also applies to agreed recommendations by the quality reviews by PMSC.

It seems there is general agreement that TFAC is a good practice which should be extended to all major projects throughout Indonesia. It can keep employers and lending agencies aware of field conditions and encourage improved contract compliance particularly when compliance levels are

low as in Indonesia. Besides highlighting deficiencies, TFAC can be used to highlight good quality works and can become a tool for incentives to good construction. Bonuses can be built into contracts for good quality (as certified by TFACs) and can be given to PPKs (if DGH regulations permit) and local consultants and contractors.

Internal auditing by DGH or the Inspectorate General (IG) of MPW should also be improved, but a final independent audit will be required to monitor compliance. Incentivising good performance by independent audit should be investigated for future projects / programs / facilities.

3.6 Safeguards

As noted earlier in this report, the safeguards for social and environmental protection were well designed, and land acquisition was successfully carried out, though there were some failings in the implementation of the environmental action plan, attributable to poor contractor and supervisor performance.

3.7 Monitoring and Evaluation

As noted earlier under Sections 2.4.8 and 3.5.3 of this report, arrangements that were made for monitoring and evaluation have been well conceived and implemented and are functioning well. The long term monitoring has not yet started, but steps taken so far are promising.

3.8 Safety Audits

Section 2.4.7 of this report summarized the situation with regard to safety audits. Creation of the Road Safety Engineering Unit (RSEU) under Bintek in DGH is a significant achievement. AusAID and DGH should help this unit grow and become an asset to the DGH in the road safety work. It is understood that IndII intends to further support this unit in the next few years.

If any of the RSEU proposals are to be implemented, changes to the design will normally be required (which should be undertaken by RSC) and additional funds will need to be made available. To date DGH has taken no steps towards implementation, and it may be necessary for AusAID to take the initiative to persuade DGH to decide which of the proposals it would be worthwhile to adopt and to instruct the RSC and the contractors accordingly. It is imperative that appropriate changes are made to make roads safe; otherwise AusAID might have an on-going reputational risk.

3.9 Quality

As noted above, the designs and bid documents were prepared to a high standard. However, there have been serious and continuing criticisms of the quality of the construction work. It is accepted that the delivery of good quality roads in accordance with specifications in the contracts with the contractors necessarily involves all parties (the contractor, supervision consultant and the Employer), but it is largely under the control of the RSC and his staff and DGH must insist on improved performance from the RSC. However, it should be noted that approval of works for payment by RSC does not exonerate the Contractor from meeting the specifications under his contract.

3.10 Loan Management

3.10.1 Resource Transfer and Loan Closing

As noted in section 2.4.2, with the current loan closing date of 31 March 2011, only AUS 260 million of the loan total of AUD 300 million will be disbursed. Extending the loan closing date to 31 August 2014 would allow completion of all packages and meet the physical targets in the loan agreement. Further, it would provide a higher probability that the 5 roads under construction (after

March 2013) would receive appropriate supervision and ensure a higher quality of construction. This would in turn reduce the potential for reputational risk for AusAID.

3.10.2 Loan Agreement and Dispute Resolution

Any loan agreement involves working through GoI systems, which in turn means that GoI controls project implementation. Formal and informal procedures for consultation are in place and are being used as effectively as can be expected. However, it is difficult to see how AusAID could exercise greater influence over implementation (DGH and contractor delays, performance, etc.) without intruding into DGH's areas of responsibility.

3.10.3 Cost Effectiveness

Considerable resources have been devoted to EINRIP management and oversight – more than other development agencies normally provide. This has demonstrated to DGH the seriousness of AusAID's desire to see that their loan funds provide value for money, that the roads are built to a good quality, and that all necessary social and environmental safeguards are complied with. The arrangements have also ensured that AusAID and DGH have been kept fully informed on progress, achievements and problems. The TFAC reports have been particularly useful in highlighting deficiencies in construction work and practices, and in proposing appropriate remedial measures.

Unfortunately, the generally poor performance of the contractors and the RSC has undermined the overall quality of the program's outputs, and unless this issue is resolved, it will not be possible to argue that EINRIP has delivered value for money.

3.11 Construction Industry

The recent World Bank funded study of Indonesian construction industry showed that there is a very wide range of capacity and skills, from large companies capable of high class work down to small companies lacking equipment, skills and management capabilities.

Although most of the companies working on EINRIP contracts are large state-owned enterprises (SOE), much of the work has been sub-contracted to small local companies, with poorer management, quality assurance and work planning skills. Training and technical assistance should be directed at such firms.

Companies respond to client pressure. Where clients insist on quality and timeliness, the larger contractors are capable of performing well. Similarly, when pressure has been applied to contractors on EINRIP (including the threat of termination), performance has improved.

3.12 Governance and Engagement

3.12.1 Achievements

The project was well prepared and the social and environmental safeguards were well conceived and implemented. The PMU functioned well during project preparation. However, consideration should be given to moving PMU closer to the Implementation Divisions (Wilayahs 2 and 3).

Establishing a Road Safety Engineering Unit under the Sub-Directorate of Environment and Road Safety in the Directorate of Technical Affairs (Bintek) with support from IndII is a good initiative and is making a contribution to improving safety on EINRIP roads.

3.12.2 Level of Engagement of DGH Stakeholders and Commitment to Change

It is difficult to make a firm assessment of the true level of engagement within DGH. Senior management expresses support for the EINRIP goal of improved quality of design and construction. They also accept the principle of FED, though express disappointment with the

quality of some of the designs, which required major variation orders (VO). Similarly, the adoption of FIDIC conditions of contract and the use of an independent supervising engineer is accepted in principle. However, there is some evidence that the commitment may not be wholehearted, particularly at local level, the main issues being:

- Unwillingness to allow the RSC the full powers given to the Engineer under the FIDIC system.
- Reluctance to apply sanctions to non-conforming works by contractors.
- PPKs seem to actively interfere in the supervision process. This may be, in part, a reflection of the poor quality of service provided by the RSC, but it hampers the efforts to impose good work standards on the contractor, by sidestepping and undermining the authority of the Engineer.
- The processing of variation orders (VOs) has proved very time consuming, due to the multi-layered management structure in DGH. Efforts are being made to streamline the process through holding joint meetings of all those involved, with mixed results.
- Reluctance to take positive steps to force RSC to improve its performance.
- Apparent little interest in implementing most of the recommendations of the safety audits and the reviews by the Quality Assurance under PMSC and to a lesser extent those of the technical and financial audits.
- Contractors claim that DGH does not seem to require quality on its projects.

3.12.3 Knowledge Transfer and Capacity Building in DGH

EINRIP has provided training to DGH staff on the Anti-Corruption Action Plan (ACAP), and the application of the FIDIC contract[4]. IndII has also played a role in training and capacity building in support of EINRIP, through support to the RSEU in carrying out safety audits.

It is difficult to judge how effective the training has been, or to what extent it has been internalized. However, interviews in Jakarta and in the field indicate that at least the principles of FIDIC contracting are understood by DGH staff, though there are clear failings in implementation. Training on FIDIC needs to be repeated at intervals for PPK staff, as the PPKs are rotated at regular intervals.

3.12.4 Areas for Improvement

Success in improving the quality of construction will only be achieved if DGH, at all levels, commits itself to the goal. This will require strong direction from the top. Shorter term actions that can help move the organization in the right direction include:

- Strengthening the Inspector General (IG) in MPW to develop the capacity to carry out technical audits. AusAID should consider extending the support currently being given to the IG through IndII.
- Instituting regular technical and financial audits on national roads, starting with a sample of nationally budget (APBN) projects and other donor funded road projects to determine quality of construction and establish benchmarks, and to raise awareness of quality. AusAID should consider grant funding for this activity.
- Exerting more effort to genuinely implement the FIDIC system, in particular by giving the engineer more genuine independence in approving minor variations.
- Rationalizing internal procedures for VOs. Devolving more responsibility to Satkers and PPKs should help speed up decisions.
- Requiring final engineering designs on national roads.
- Requiring safety audits on national roads.

[4] FIDIC training was also provided to the RSE staff and contractors

Finally, it is evident that improvements to road construction quality will require strengthening the contracting and consulting industries. There is a strong case for training and mentoring support to industry as well as support to university education in Indonesia in road engineering and related fields. AusAID should consider supporting this initiative.

3.13 Sustainability

Sustainability in the context of current DGH maintenance practice

DGH now has substantially increased funding and the amount allowed for routine maintenance, around USD 5,400 per km is generous by international standards. It is difficult to determine how much work is in fact carried out and there is some evidence that the routine maintenance of newly constructed road is neglected. The volume of periodic maintenance is not sufficient to prevent road deterioration and it is carried out in a piecemeal fashion, with contracts being let for short sections of roads considered to be in need of repair, rather than pre-emptive reseals or overlays undertaken before serious problems start to develop. Unit expenditure for periodic maintenance is high at USD 250,000 per km.

In light of maintenance practices elsewhere on the national road system, it is unlikely, without a specific commitment from DGH, that EINRIP roads will receive the necessary levels of maintenance, particularly periodic maintenance, which is likely to be carried out too late.

Broader political context

The funds allocated to national roads have increased rapidly in recent years from USD 550 million in 2005 to over USD 2 billion in 2011. There is, naturally, concern at national government level that there should be a corresponding increase in the quality and quantity of road provision. In the general public, there is widespread disappointment in the quality of road provision and a pervasive conviction that endemic corruption is the root cause of the poor performance of DGH. To date, the public discontent has not been effectively focused, though the introduction of local Transport Forums mandated in recent legislation may provide a useful basis for making the public's views known. In the meantime, there is little sign that DGH is conscious of any external pressure to improve or reform.

3.14 Lessons Learned

Preparation

1. Land acquisition is a slow process, but cannot be avoided if improved road alignments are to be achieved. Project planning should make adequate allowance for the time it will take.
2. More generally, major construction projects take time to plan, bid, contract and implement. Any future loan agreement must make realistic allowance for foreseeable delays.
3. Risk analysis needs to address the problems associated with contractor and supervisor performance. A future program would be easier to manage if it consisted of larger, more geographically concentrated, projects.
4. Even with FED, design changes will often be required as field engineering reveals more information about site conditions. The retention of the design engineers (in this case the PPC) during the construction phase, on a much reduced scale, would make it possible to make any necessary changes quickly.

Procurement

5. Procurement could be faster if organized by AusAID and financed by grant. It might also improve the quality of the selected contractor, through reducing the pressure to underbid. However, if AusAID funds are given as a loan (similar to EINRIP) then procurement has to be

undertaken by DGH. Implementation of the PAS recommendations detailed in Section 4.3 of this report should improve procurement process and reduce delays.

6. Pre-bid conferences should be allowed. The risks of collusion are outweighed by the benefits of being able to clarify the requirements of the contract and explain the audit process.

7. The practice of underbidding appears to be part of the contracting culture in Indonesia and will be difficult to eliminate, but the use of pre-bid conferences should help clarify the consequences of underbidding. Consideration should also be given to rejecting bids below a certain percentage of the Owner's estimate (say 80%), even though current procurement guidelines of other donors, such as the World Bank, do not allow this practice. Adoption of such a recommendation would require discussions and hopefully agreement with other donors and GOI.

Implementation

8. The full implications of the FIDIC contract are still not widely understood, and more effort needs to be put into socializing the concept with DGH and the construction and consulting industries.

9. Application of sanctions (or the threat of sanctions) is effective in improving contractor performance. However, it can be difficult to persuade local officials of the necessity for such a confrontational approach.

10. Effective performance by the supervision Engineer is crucial if good quality construction work is to be achieved. The RSC is performing poorly, and is not responding to exhortations. It seems likely that the threat of termination of their contract will be necessary to start to improve their performance.

11. When pressed, contractors are capable of doing good quality work, though some technical deficiencies remain, such as surveying and setting out.

12. AusAID engagement with GoI is likely to be closer on a loan program than with grant aid, and will be necessary if AusAID wishes to work with GoI to improve road delivery. But working within government systems is difficult due to institutional inertia and complex internal management systems, and corrupt practices continue to subvert attempts at improvement. Serious and sustainable change will require AusAID to make a long-term commitment to support DGH and to develop the fortitude to bear the inevitable disappointments that such commitment will bring from time to time.

4 Recommendations

4.1 EINRIP Specific

1. The loan period should be extended to August 2014, to cover the expected completion of the works. This will ensure that:
   a. Work can proceed smoothly, without the need for DGH to arrange additional funds, which would prove administratively (if not financially) difficult.
   b. AusAID mandated safeguards and supervision arrangements remain in place to project completion. In the absence of supervision, work quality could fall and place AusAID at reputational risk.
2. Take steps to improve quality of supervision. Options available will depend on the length of time for which supervision is required:
   a. If the services are co-terminus with the current loan closing date (March 2013), the only option is to put pressure on the consultant through direct contact with the company directors in Paris (as discussed in Section 3.5.2 of this Report).
   b. If services are co-terminus with the completion of the project works (Aug 2014) more options are available and there would be sufficient time to replace the consultants. Replacing the supervision consultant would send a strong message to all consultants and contractors that DGH and AusAID are serious about quality, and that they need to improve their practices and performance. This could be done either through DGH procedures, which could take as long as 12 months and would limit the competition to the diminishing number of consultants prepared to work on GoI contracts, or through AusAID procuring and contracting the consultants directly, which would be quicker (4 to 6 months) and would potentially open the field to a larger number of international consultants. After comparing these two options (Section 3.5.2 of this Report), it is recommended that DGH procure the services of the replacement RSC with AusAID providing a procurement agent to assist DGH in the procurement process.
3. The recommendations of the safety audits should be reviewed by DGH and steps taken to implement them, where practicable. AusAID should be prepared to allow the use of loan funds for this purpose.
4. The M&E program should be extended to run for at least 5 years after project completion, as recommended by the Independent Completion Report (ICR) for the preparation phase.
5. AusAID to seek agreement with DGH on the development and implementation of a program of routine and periodic maintenance on EINRIP roads.

4.2 General Recommendations

1. TFAC style audits should be extended to all projects
   a. This will focus attention on quality issues throughout the DGH investment program; and
   b. Provide a basis for making valid comparisons between different management and financing arrangements.
   c. The audits could be carried through the office of the MPW's Inspectorate General (IG). The IG will initially need to employ external consultants, and technical assistance to develop an internal capability. AusAID should consider funding both the consultancy and the TA.
2. DGH should take steps to streamline the processing of variation orders and to devolve responsibility for approvals to lower administrative levels, to the extent possible within DGH internal regulations, and determine the size of variation order that can be authorized at each level (supervision engineer, PPK, Satker, etc.) without requiring permission from higher levels. In the medium term, DGH should amend its regulations to ensure consistency with FIDIC contract conditions.

3. Strengthen and extend the work of the RSEU on road safety audits, which should be applied to all road improvements, and to the identification of, and remedial work for, accident blackspots. AusAID should support the work of the Unit, and should consider providing funding for civil works at blackspots on a pilot/demonstration project basis.
4. AusAID should examine ways to support and develop the Indonesian construction and consulting industry possibly through:
   a. Working with industry associations to identify training and mentoring needs
   b. Assistance to universities
   c. Provision of overseas training
   d. Support to civil society (such as Transport Forums) to facilitate the articulation of the public desire for good quality roads and better value for money.

4.3 Preparation Processes for Future Loan Programs

In the event of a future AusAID loan program to the road sector, the following improvements to the preparation and procurement process include:

1. PPC design services should be retained during implementation of civil works to provide the required services for major design reviews which might arise during implementation.
2. Road Safety Audits should be undertaken while the sub-projects are being designed and results reflected in the final design and bid documents. However, safety audits can be carried out as needed during and after construction of the civil works.

The following PAS recommendations should also be considered.

3. Although procurement training was provided under EINRIP, it should be repeated annually under future projects as there is a high turnover among PPKs and should be directed at DGH, PMU, PPK, and Satkers in addition to PCs during their involvement in procurement.
4. As indicated earlier under this report, ACAP recommended that “no pre-bid conferences be held, except with AusAID’s prior written approval to reduce the likelihood of collusion. Loan agreement required this also. This was not a good decision and should be reviewed and possibly deleted in future projects.
5. Budgets for PCs should be increased to cater for administrative expenses such as newspaper advertisement, document reproduction, honoraria for civil society representatives, transport of documents to Jakarta, conducting pre-bid conferences, site visits and bid opening.
6. PAS recommended that PCs be authorized to verify the authenticity and validity of equipment claims (both minimum and other listed items) and financial statements submitted by bidders by viewing of original documentation and physical examination witnessed by the PMU, PAS, and AusAID.
7. A central bidder performance database should be developed for all of MPW, including DGH. This would become the central point of reference for future evaluations for eligibility, blacklisting, and past performance. Forms for evaluating performance of contractors and consultants at end of works should be developed and filled and sent to central database.
8. Evaluating bidder performance should take into account quantitative progress performance of on-going projects using the simple measure of percentage of work certified against percentage of time elapsed.
9. More realistic time should be allocated between issuance of NOL for Contract Award from AusAID and Approval of Contract Award by MPW.

10. Bid Documents need improvement to remove discrepancies between Project Management Manual, the World Bank and bid documents.
11. Contractor Qualification Document needs to be revised to reflect lessons learned under EINRIP and a template provided for other projects.
12. PCs required support and some form of support mechanism similar to PAS is recommended for future projects, especially if donor funding covers sub-national roads (provincial and kabupaten and kota roads). Sufficient inputs should be included for a Database Manager and IT support personnel so that a comprehensive and accessible database can be developed.
13. The construction industry lacks awareness and professionalism in bidding for and implementing works projects. An industry wide approach to improving awareness is necessary and should involve Indonesian Contractor Associations AKI (large contractors), Gapensi (medium and small contractors), the Construction Services Development Board (LPJK), and the consulting industry (INKONDO).

Annex 1

Terms of Reference for IPR

Terms of Reference for Independent Progress Review (IPR)
Eastern Indonesia National Road Improvement Program (EINRIP)

1. Introduction

The Australian Agency for International Development (AusAID) in partnership with the Government of Indonesia (GOI) administers the Australia Indonesia Partnership (AIP). The AIP's goal is to support Indonesia to achieve sustainable poverty alleviation by delivering the development outcomes outlined in Indonesia's Medium Term Development Plan.

The loan for roads originated from the A$1 billion package of assistance offered by the Government of Australia (GOA) to Indonesia immediately following the Indian ocean tsunami in December 2004. The GOA has committed A$300 million loan funding for a negotiated program of national roads improvement through EINRIP to support 20 improvement projects in 9 provinces in Eastern Indonesia. A further $31 million of AusAID grant funding has been allocated for project preparation, design, monitoring and project-related technical assistance.

The EINRIP loan program is implemented by the Directorate of Highways (DGH or Bina Marga). The stated objective of EINRIP is "to support regional economic and social development in eastern Indonesia by improving the condition of the national road network." The total National Indonesian roads network is 38,600 km. The major focus of EINRIP is upgrading certain road corridors which have been reclassified as National Roads from Provincial or non-status roads, of which there are some 4,300 km in Eastern Indonesia. The primary and initial aim of the program was to improve approximately 400 km of these links to an acceptable standard of service and accessibility, to provide the infrastructure essential to support regional enterprise, productivity and growth.

2. Background

To date, 18 of the 20 EINRIP project packages are under implementation and 2 packages are still in process of land acquisition and procurement.

The EINRIP civil works road and bridge improvements include:

- Road alignment and grade improvements
- Pavement reconstruction, drainage and roadside furniture
- Road widening to a 6m minimum standard
- Bridge and culvert replacement/repair/installation
- Fabricated steel trusses for priority new bridges.

During the course of close collaboration with DGH during the planning, preparation, roads design, procurement and now the implementation phase, an effective working relationship has been forged with the implementing agency. The Indonesia Infrastructure Facility (IndII) has also provided supplementary technical assistance to DGH in key governance reform areas, such as introduction of Performance Based Budgeting and a Medium Term Expenditure Framework, and to support initiatives on road safety during construction.

The design of the project identified the need for a number of particular measures designed to improve project quality, sustainability and governance. These included:

- Improved project planning and preparation, including Final Engineering Designs (FED) for all projects rather than "simplified design"
- Improved procurement processes and increased transparency and accountability
- Strengthened and independent construction supervision and quality control processes that emphasise the responsibility of contractors
- An independent program of technical and financial audits (the TFAC consultants) of project worksites and contractors

- A long-term program of monitoring and evaluation based on periodic surveys extending 3 years beyond the end of construction to assess the effectiveness of the EINRIP approach by assessing road durability and other factors.

3. Scope of the Review

The Independent Progress Review (IPR) will assess the performance of the EINRIP loan program during the implementation phase to date. This review is timed for mid way through the implementation phase, and so for AusAID the Independent Progress Report (IPR) fulfils the purpose of a Mid-Term Review, even though an MTR is not a requirement in the Loan Agreement documents. The report will be provided to AusAID Jakarta and to the Director of Planning at Bina Marga, to assist both organisations in assessing progress of implementation to date, and identifying constraints and solutions for full achievement of the loan program objectives.

It will provide analysis and recommendations, if appropriate, for improvement of implementation during the remaining loan period. Note that the loan preparation and planning phase of the loan, grant funded by AusAID, was undertaken by Project Preparation Consultants (PPC) from 2006 to 2009. This phase has already been the subject of an evaluation - the Independent Completion Report of the Project Planning and Preparation Consultants (PPC). The PPC report is an essential contextual reference for this review. The IPR should also address any further lessons in relation to formulation of the loan program, and the planning, preparation, design and procurement phases, not covered by the PPC Report.

The IPR will assess the achievements and effectiveness of these features over the course of the loan to date.

4. EINRIP Implementation Modality

EINRIP is implemented by the Directorate of Highways (DGH or Bina Marga) of the Ministry of Public Works (MPW) over the period January 2008 to March 2013, the current Loan Closure Date (LCD). Overall EINRIP management is guided by a dedicated work unit within DGH – the Project Management Unit (PMU), and by the directions contained in the EINRIP Project Management Manual (PMM).

In managing EINRIP the DGH is supported by the Project Management Support Consultant (PMSC), the Regional Supervision Consultant (RSC) and previously a Procurement Advisory Service (PAS), procured and paid for by DGH from Loan funds.

The PMSC provides full support to the PMU in all of its functions involving project administration, coordination, monitoring and reporting. It also has a role in monitoring the work of the RSC.

The Regional Supervision Consultant (RSC) provides supervision of civil works and has the role of 'Engineer' under a FIDIC-type contract. The role of the RSC is to ensure that the contractors deliver work to meet contract specifications and correctly carry out quality control tests on the contractor's materials and workmanship as required by the Technical Specification.

Procurement Advisory Services (PAS) consultants previously provided support to the Project Managers (Contract Officers) and Procurement Committees during the procurement phase, to help ensure that procurement and award decisions were undertaken in accordance with agreed procurement guidelines (World Bank guidelines were adopted). The PAS services terminated late in November 2010.

AusAID oversight of the loan is primarily undertaken by the EINRIP Monitoring Unit (EMU) funded directly by AusAID. It is staffed by two international consultants and local professional and administrative staff. It is responsible for providing advice to AusAID on all aspects of the loan

program development and now implementation. It engages directly with DGH in this role, on policy, disbursement and technical issues, principally via the PMU.

There is a long-term Monitoring and Evaluation program underway, funded directly by AusAID. This was designed to evaluate achievement of EINRIP objectives by measuring appropriate indicators on project and control roads, before and after the completion of EINRIP packages. The M&E program includes periodic surveys on road roughness, types and number of vehicles using the road, and vehicle speed, traffic accident data and social surveys.

Independent Technical and Financial Audit Consultants (TFAC) have been engaged by AusAID to assess the quality of construction work in real time, to support and strengthen the supervision process. The TFAC provides audit oversight of the overall program by means of targeted project audits. It provides a mechanism for reviewing contractor performance, and also the performance of the employer and their loan funded Supervision Consultants. The TFAC assesses conformity and compliance of project management, supervision, and construction, and provides follow up recommendations related to its findings to improve project management and supervision practices.

5. Review Objectives

The goal of the IPR mission is to assess the performance of EINRIP implementation to date, in the context of country specific and institutional constraints, and this will include the following broad objectives:

i). To evaluate the progress of the civil works implementation and provide recommendations for improving the effectiveness of coordination mechanisms and accountabilities among the key EINRIP stakeholders to help address progress and quality of civil works implementation over the remainder of the loan period.

ii). To assess the operational effectiveness of the loan safeguards framework, including social and environmental, technical and financial audits, anti-corruption measures and HIV-AIDS Awareness components.

iii). To undertake analysis of the impact upon DGH of the governance and capacity building aspects of EINRIP to date, and comment on some broader program planning and management questions set out in Section 6 below.

The overall methodological approach will focus on the lessons learned to date from EINRIP implementation, and how they could most effectively be applied to this or to future loans in the sector. Specifically, it should review whether the EINRIP innovations described in section 2 above, have been fully realised and are proving effective.

6. Scope of IPR Mission

The IPR Team will address the following Key questions to assess EINRIP's performance in the following areas:

a) Assess whether the loan is likely to achieve the resource transfer targets established in the Loan Agreement and other key documents.

b) Assess the suitability of the Loan Agreement arrangements for dealing with issues of dispute resolution, poor contractor and project performance, and significant program slippage.

c) Assess the governance and capacity building components of the loan and the related TA activities that have evolved over the implementation period. Assess the extent to which the loan is likely to achieve these governance objectives.

d) Assess whether the loan program design appropriately addressed sustainability, so that the benefits of the loan funds will continue after funding has ceased, and the road assets will be preserved, with due account of partner government systems, resources, stakeholder ownership and the National roads maintenance strategy.

e) Review the Cost Effectiveness of the loan program, with reference to the overall cost of EINRIP management, monitoring and oversight units and consultancies (EMU, TFAC, M&E component) and AusAID staff resources, and the likely longer-term benefits and impacts.
f) Assess the likely short and longer-term impacts of any innovative design aspects of the loan agreement, particularly

- adoption of the Final Engineering Design (FED) approach for all EINRIP projects
- whether the specified standards of construction and outcomes under the FED approach were appropriate to the national/ regional context
- the responsiveness of bidders for Civil Works tenders to the information requirements to be provided for post-qualification evaluation
- the adequacy of procurement guidelines adopted during the procurement phase, and any impacts upon implementation
- the major causes of significant variations during construction stage and identify any deficiency in the design and bidding documents that may have resulted in a pattern of amendments and variations
- the use of the harmonised FIDIC construction contract, and the deployment of an independent Supervision Consultant as the Engineer (the RSC)
- the adequacy and effectiveness of the appointment of the RSC Team Leader as the "Engineer", and the delegation of this authority to the CSEs and SSEs
- the effectiveness of the TFAC program
- the adequacy and effectiveness of the EMU engagement.

g) Assess the effectiveness during implementation of the strengthened governance arrangements for the loan, through the adoption of a detailed Anti-Corruption Action Plan (ACAP) and the extended Technical and Financial Audit program.
h) Assess the extent to which any of the EINRIP loan features above have been or are likely to be adopted as improved business process by DGH, or may be expected to influence GOI planning, project preparation or National roads management policy.

7. Evaluation Process

The review mission is scheduled for 2-3 weeks and is planned to commence on Monday 21 November 2011. The exact date and timeline of the IPR is to be confirmed based on consultation with GOI counterpart agencies and the evaluation plan (including methodology) that will be developed by the team leader.

In undertaking the IPR, the evaluation team will:

a. Conduct a preliminary document review to assess relevant program documentation provided by AusAID and advise AusAID of any additional documents or information required prior to the in-country visit
b. Participate in an AusAID briefing session in Jakarta at the start of the in-country field visit.
c. Conduct meetings in Jakarta with relevant stakeholder organisations and individuals.
d. Conduct a field visit to one or more EINRIP project sites in-country – only if considered necessary.
e. Prepare an Aide Memoire for submission at the conclusion of the field review which outlines the major findings and preliminary recommendations of the IPR. Participate in an AusAID debriefing session in Jakarta at the completion of the mission and present initial findings of the IPR in the Aide memoire to AusAID Jakarta and principal counterparts.
f. Submit a draft IPR
g. Submit the final IPR after receiving comments from AusAID.

8. Evaluation Team

The IPR Team will comprise a Team Leader, Road Specialist, Social and Environment Safeguards Specialist and an AusAID Infrastructure Adviser.

The team leader will be responsible for writing up the IPR Final Report. He/she will have particular expertise in M&E methodology, experience and knowledge in institutional reforms, bilateral/multilateral partnership mechanism, and familiar with Indonesian government system. The TL will provide an overview and analysis of EINRIP implementation and related strategic issues, including but not limited to:

- analysis of the effectiveness of AusAID management, monitoring and (indirect) supervision of the loan program
- analysis of the effectiveness of partner government structures related to management of the loan and EINRIP implementation
- analysis of, current and potential value for money outcomes related to EINRIP implementation
- analysis of coordination arrangements for Loan implementation and recommendations for improved coordination
- oversight of other team members' inputs and coordination of their inputs,
- responsibility for the overall content and quality of the reports to be provided to AusAID and Bina Marga.

The AusAID Infrastructure Adviser will provide the insight and perspective of AusAID corporate and strategic policy, including consideration and analysis of:

- compliance with relevant AusAID cross cutting policy issues
- GOI/GOA partnership issues and arrangements
- Analysis of the Monitoring and Evaluation arrangements for EINRIP and the approach to Risk Management
- based on observed and reported EINRIP experience and the review mission, the Adviser will provide a 'lessons' section drawn from the above topics, to be applicable to any further AusAID management of loan programs or large-scale road betterment programs, and
- assist in identifying options and opportunities for future programming in the sector.

Under direction of the Team Leader, be responsible for consolidating the 'lessons learned' inputs from the other consultants into a stand alone section of the report.

The Infrastructure Evaluation Specialist will have knowledge and experience in the evaluation of major infrastructure programs, including of roads design and quality issues, and preferably have at least 5 years experience in the national roads sector in Indonesia. He/she will provide analysis of:

- whether application of FED to the EINRIP loan program is likely to translate into higher quality, safer and more enduring roads with a competitive whole-of-life cost (ie, better value for money than the alternative 'interim design' approach)
- whether road safety issues are sufficiently addressed during EINRIP planning, design and implementation, and whether adequate accident prevention measures are likely to be in place for the EINRIP roads
- the likely sustainability of EINRIP roads in the context of current DGH routine and periodic maintenance arrangements for the National roads network
- the level of engagement of stakeholders within DGH to EINRIP implementation

- the extent of knowledge transfer and capacity building within DGH
- the broader GOI political and public opinion context that may exert influence on EINRIP and associated governance reforms within DGH
- based on observed and reported EINRIP experience and the review mission, the specialist will contribute to an EINRIP technical 'lessons' section
- contribute to all other aspects of the Review, based on experience with EINRIP and other major road or loan projects, and
- under direction of the Team Leader assist with the overall report writing tasks.

The Social and Environment Specialist will be responsible for overview of the EINRIP social and environmental safeguards. He/she will carry out analysis of

- the implementation of social and environmental safeguards stipulated in the formal Loan documents including Land Acquisition and Resettlement issues and environmental impacts mitigation
- the effect of social engagement aspects of the program, including the HIV/AIDS awareness component, community consultation and participation, civil society engagement and gender equality issues
- opportunities for enhancing the public outreach and awareness of EINRIP, to build on increasing Indonesian public awareness of the importance of quality and value-for-money infrastructure investment, and
- based on observed and reported EINRIP experience and the review mission, the specialist will provide an EINRIP Social Safeguards 'lessons' section.

9. Reporting requirements

The IPR Team shall provide AusAID with the following reports:

a. **Evaluation program and schedule** to be developed in the first two days of the in-country visit;

b. **Presentation of an Aide Memoire and discussion -** on the initial findings of the IPR to be presented to AusAID and to key GOI stakeholders at the completion of the in-country mission;

c. **Draft IPR** Report – to be submitted to AusAID within two (2) weeks of completing the mission. AusAID may share the report with and seek feedback from partner government (DGH, MOF, BAPPENAS) and other key stakeholders, as appropriate;

d. **Final IPR Report** – to be submitted within two weeks of receipt of AusAID's comments on the draft IPR. The IPR Team shall determine whether any amendment to the draft is warranted. The report should be a brief and clear summary of the IPR outcomes and focus on a balanced analysis of issues faced by the activity.

e. **Draft Infrastructure Sector Review (ISR) Report** – to be submitted to AusAID at completion of the mission. AusAID may share the report with and seek feedback from other key stakeholders, as appropriate

f. **Final ISR Report** – to be submitted within two weeks of receipt of AusAID's comments on the draft ISR. The Team shall determine whether any amendment to the draft is warranted. The report should be a brief and clear summary of the ISR outcomes and focus on a balanced analysis of issues faced by the activity.

Both the draft and final reports should be no more than 20 pages of text plus appendices. The Executive Summary should be no more than 2-3 pages. The IPR mission will take approximately 2

to 3 weeks in-country and the draft reports are to be completed by end of December 2011 at the latest.

10. Review requirements

The draft report will be subject to technical quality review, and review by peers. Revisions to the report may be required following these reviews, and will be negotiated as appropriate.

11. List of Key Partner Agencies

Directorate-General of Highways, Ministry of Public Works
Ministry of Finance (Directorate of Debt Management)
BAPPENAS (Dir of Utilisation of Development Funding)
World Bank, Jakarta Office

12. List of Key Documents

EINRIP Loan Agreement
EINRIP Project Implementation Plan
EINRIP Project Management Manual
EINRIP Latest Project Progress Reports from EMU, PMU and PMSC
EINRIP Procurement Advisory Services (PAS) Completion Report
EINRIP Technical & Financial Audit Reports
EINRIP Monitoring and Evaluation Reports
The EINRIP project Preparation Consultancy (PPC) Independent Completion Report (ICR)
PPC-ICR Team Insights into Broader Infrastructure Program Management Questions
EINRIP Lessons Learned matrix (Infrastructure Manager report)
Considerations for Future Support by InDII Phase 2 to the Road Sector in Indonesia
World Bank Interim Report on Assessment of the Road Construction Industry in Indonesia.

Annex 2

People Met and Organizations Consulted

People Met and Organizations Consulted

	Name	Position
Ministry of Finance		
1	Ibu Ayu Sukorini	Director, Directorate of Debt Strategy and Portfolio
2	Hendi	AusAID Desk, Directorate of Debt Strategy and Portfolio
Bappenas		
1	Ir. Bambang Prihartono.	Director of Transportation
2	Bastian	Deputy Director, Air Transportation
CMEA		
1	Aldian	Division of Land and Railways Transport Infrastructure
Ministry of Public Works		
1	Danang Parikesit	Special Staff of the Minister
Directorate General of Highways		
1	Ir. Djoko Murjanto	Director General
2	Ir. Harris Batubara.	Director, Bina Program
3	Ibu Rien Marlia	OIC Project Management Unit
4	Ir. M. Iqbal Pane	Director of Implementation Region III
5	Ir. Winarno	Director of Implementation Region II
6	Ir. Gandhi Harahap	Former DG: consultant to IndII
7	Ir. Bambang Eko Hargianto.	Head of Sub-Directorate of Financing and Foreign Cooperation
8	Ir. Srie Handono Mashudi	Head of Sub-Directorate Region II D
9	Ir. Hari Laksmanto	Head of Sub-Directorate Region III B
10	Ir. Solo Riyadi Limbong	PPK (Contract Officer for RSC)
11	Ir. Miftachul Munir	Head of Section for Implementation, Balai VI
12	Ir. Ibnu Kurniawan	Head of Section of Implementation, Balai XI
13	Ir. Sugeng Gunadi	Head of Section Region III A
14	Ir. As Yanhar	Head of Planning, Balai VII
15	Ir. Abdul Syahid	PPK (Contract Officer for ESS-02 & ESS- 03)
16	Ir. Syahmansyah	Project Officer for RSC
17	Rp Marstiawan	Project Officer, SNVT Wilayah 1, South Sulawesi
18	Bayu Idiajir	Implementation Section, Balai VIII
19	Ir. Jany Agustin.	Consultant, Road Safety Engineering Unit
World Bank		
1	Mustapha Benmaamar	Sr Transport Specialist, Indonesian Resident Mission
2	Andrew Sembel	Environmental Specialist
3	Cisca Melia	Environmental Specialist
Asian Development Bank		
1	Aminul Huq	Project Implementation Adviser (Energy) Indonesia Resident Mission
2	Soewartono	Sr Project Implementation Officer, Indonesia Resident Mission
AusAID		
1	Jacqui de Lacy	Minister Counsellor
2	Ben Power	AusAID Counsellor, Infrastructure and Economic Governance
3	Patrick Dennis	Manager Infrastructure
4	David Hawes	Senior Infrastructure Adviser
5	Andrew Dollimore	Aid Program Manager, Infrastructure
6	Sigit Pratignyo	Program Manager
EINRIP Monitoring Unit		
1	Hugh Brown	Infrastructure Adviser
2	Leslie Robertson	Engineer Adviser
3	M. Fahmi	Project Engineer
4	Teguh Wiyono	Environmental Specialist

	Name	Position
Indonesia Infrastructure Initiative		
1	David Ray	Facility Director
2	David Shelley	Technical Director, Transport
3	David Foster	Lead Advisor
4	William Paterson	Consultant
Regional Supervision Consultant		
1	H. Tony Sieber	Team Leader
2	Abrar Mahyudi	Deputy Team Leader
3	Claude Allouche	Senior Quality Pavement / Materials Specialist
4	Roberto Zorzi	Senior Quality Pavement / Materials Specialist
5	V. Thiagarajah	Chief Supervision Engineer
6	Arya Suryawan	Site Supervision Engineer ESS-02
7	Andi Iskandar	Site Supervision Engineer ESS-03
8	Ridwan	RSC Environmental Specialist Makassar
9	Lili	RSC Environmental Specialist, Makassar
Project Management Support Consultants		
1	Abid Kazmi	Team Leader
2	Haryanto C. Pranowo	Assistant Team Leader
3	Jay Abeysinghe	Senior Contract / Quality Assurance Specialist
4	Efrizal Effendi	Contract / Quality Assurance Specialist
5	Jarot J. Subroto	Environmental Specialist
Technical and Financial Audit Consultants		
1	Ted James	Team Leader
Contractors		
1	Zulkifli	Deputy General Superintendent ESS-02
2	Adi Supriyono	Administration and Contract ESS-02
3	Sumardyana	Deputy General Superintendent ESS-03
4	Ahmad Najib	Quality Manager ESS-03
BLHD / Bapedalda		
1	Faisal	Head of Amdal Review, Makassar
2	Lukman Mannan	Head of Section, Bappeda, Sinjai
3	Taufik	Head of Section, Bappeda, Bulukumba
HIV/AIDS		
1	Titi	Campaigner, Yayasan Ksuma Bangsa, Jakarta
2	Tita	Coordinator, RSC, Makassar

Annex 3

Documents Received

Documents Received

1. AusAID, EINRIP Loan Agreement,
2. AusAID ENRIP Monitoring Unit (EMU), Progress Reports for August, September , and October 2011.
3. AusAID, EINRIP Lessons Learned-Summary Matrix, Patrick Dennis, August 2011.
4. URS Australia Pty Ltd, Independent Completion Report: EINRIP Project Preparation Consultant, 25 November 2009.
5. Procurement Advisory Services (PAS) for EINRIP, Final Report, 26 November 2010.
6. Ministry of Public Works, Directorate of Highways, EINRIP Project Implementation Plan (PIP), version 12, June 18, 2007.
7. Indonesia Ministry of Public Works, Directorate General of Highways, EINRIP Project Management Manual, March 2008.
8. Indonesia Ministry of Public Works, Directorate General of Highways, Anti Corruption Action Plan for EINRIP, June 27, 2007.
9. Project Management Unit (PMU) for EIRIP, Project Progress report, September 2011.
10. Cardno Emerging Markets (Australia) Pty Ltd, Technical and Financial Audit Consultant, Second Audit Report No. B013, Project ESS-02 Bantaeng- Bulukumba, South Sulawesi, EINRIP, September 2011.
11. Cardno Emerging Markets (Australia) Pty Ltd, Technical and Financial Audit Consultant, Report No. S002, Special Financial Audit Report, RSC Personnel Remuneration Audit, EINRIP, October 2011.
12. EGIS BCEOM International in joint venture with Renardet S.A., Pt Cipta Strada, Pt Indec Internusa, and Pt Seecons Regional Supervision Consultant (RSC), EINRIP Monthly Progress Report No. 33 for October 2011.
13. EGIS BCEOM International in joint venture with Renardet S.A., Pt Cipta Strada, Pt Indec Internusa, and Pt Seecons Regional Supervision Consultant (RSC), EINRIP Quality Assurance Plan (QAP), Draft Version 3.2, September 2010.
14. SMEC International Pty, Ltd. In sub-consultancy with: Pt. Denka Krisna, Pt.Lenggogeni, and Pt. Hi way Indotek Konsultan , Project Management Support Consultant (PMSC) for EINRIP, Monthly Progress Reports for August, September, and October 2011.
15. SMEC International Pty, Ltd. In sub-consultancy with: Pt. Denka Krisna, Pt.Lenggogeni, and Pt. Hi way Indotek Konsultan , Project Management Support Consultant (PMSC) for EINRIP,Quality Monitoring Visit Package ENB-03 Bts Cabdin Dompu- Banggo West Nusa Tenggara, 16-21 October 2011.
16. Australia Indonesia Partnership, Indonesia Infrastructure Initiative, RSACRP Project Road Safety Audit Recommendation Compendum for EINRIP Projects: EKB-01, EKS-01, EKS-02, ENB-01AB, ENB-01C, ENB-02, ENB-03, ESH-01, ESR-01, ESR-02, ESS-02, ESS-03, ESS-05, ESS-06.
17. URS Scott Wilson, Assessment of the Road Construction Industry in Indonesia, Final Report, version v 1.2, 27 June 2011.
18. URS Scott Wilson, Assessment of the Road Construction Industry in Indonesia, Interim Report.

AMDAL and UKL-UPL Documents

19. AMDAL for ESS-04, ESS-05, and ESS-06
20. UKL-UPL for ESS-03, EBL-01,ENB-01C, EKS-03, ENB-01AB, ESR-01, and ESU-01.
21. Environmental Tracking Reports AWP 1, 2, and 3

LARAP and Simple LARAP Documents

22. LARAP for ESS-01, ESS-03, ESS-04, ESS-05, ESS-06,Bulukumba, EKS-01, EKS-02, EKS-03, EKS-04 EKB-01, ENB-01 AB, ENB-03.
23. Simple LARAP for ESR-01 and ESU-01.
24. Pleno for Bulukumba and Sinjai