



# Technical Assistance Consultant's Report

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Project Number: 44140  
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## TA 7566-REG: Strengthening and Use of Country Safeguard Systems

Subproject: Country Safeguard Review (Papua  
New Guinea)

### **ACTION PLAN**

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**Asian Development Bank**

# **STRENGTHENING AND USE OF COUNTRY SAFEGUARD SYSTEMS**

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**TA No: 7566 (REG) PNG: COUNTRY SAFEGUARD  
REVIEW**

## **ACTION PLAN**

Charles Adamson and John Duguman

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## EXECUTIVE SUMMARY

The regional technical assistance (TA) RETA 7566: Strengthening and Use of Country Safeguard Systems (CSS) included a review of Papua New Guinea (PNG) environmental legislation with regard to equivalence with the environment safeguards covered in Asian Development Bank's Safeguard Policy Statement 2009 (SPS). The overall CSS assessment procedures to be adopted in subprojects implemented under the RETA were presented in a workshop in November 2011. The second phase reviewed the implementation of CSS procedures within the PNG context and adopting the energy sector as the area for case study. The Department of Environment and Conservation (DEC) was identified as the responsible agency at the national level and PNG Power (PPL) was chosen as the implementing agency at the sector level. The third phase is the preparation of an Action Plan (AP) which addresses the gaps identified and which would improve the application of CSS within PNG. This report provides the final AP as elaborated with DEC and PPL following the workshop held in August 2012.

Following two consultative meetings with the various participating organisations, one to discuss the findings of the legislative review and the second to review the implementation findings and a draft action plan, three activity areas were identified as the basis for the Action Plan; i) strengthening of the policy and legal requirements for CSS; ii) technical strengthening of CSS procedures; and iii) capacity building and institutional strengthening of DEC and PPL for improved CSS implementation and compliance.

Policy and legal strengthening requirements to improve CSS includes the need to redraft policy to align with CSS procedures followed by improvements to regulations, standards, and guidelines.

Technical strengthening of CSS procedures involves; i) the review of CSS requirements in the DEC guidelines, ii) the development of sectoral guidelines, iii) the review and updating existing Code of Practices (CoP) and sectoral guidelines, iv) the strengthening of Environmental Permit (EP) Administration and v) PPL technical strengthening requirements. One of the main areas that needs to be addressed is the need for an EMP to be produced as part of the environmental assessment process.

Capacity building and strengthening within DEC and PPL is the third activity in the Action Plan and involves a technical capacity needs assessment for DEC staff that are directly responsible for CSS procedures. This activity will be undertaken at the same time as the reorganisation of DEC into sector based review functional units. It is also proposed to re-establish the Water Resources Division (WRD) as the leading source of hydrological and water quality data in PNG.

Capacity building in PPL includes the formation of a long overdue Environmental Unit (EU) which PPL is now considering in terms of additional staff and budgetary resources. Another area that will be addressed by capacity building is strengthening the role of CSS in the project development cycle which involves raising awareness within senior management and extension of job descriptions to include higher level responsibility for CSS actions. Awareness also needs to be raised in the need to comply with the EMP requirements both by PPL and the contractor during construction. A training program for contractors is also recommended that will raise contractor awareness of the EMP and EP conditions at the time of bidding and later during construction.

The complete Action Plan will cost \$1,113,525 and if carried out will address gaps within PNG's country safeguard systems. However, before it is implemented both the PNG Government, DEC and PPL must be prepared to support the initiatives that are contained within the Action Plan. If adopted the Action Plan will improve equivalence

with ADB and other development agencies CSS procedures. The technical strengthening of DEC and PPL will compliment their activities as they move forward to cope with rapid expansion in natural resource development.

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## **ACRONYMS**

ADB	Asian Development Bank
CoP	Code of Practice
CDM	Clean Development Mechanism
CSS	Country safeguard system
DEC	Department of Environment and Conservation
EMP	Environmental Management Plan
EO	Environmental Officer
EP	Environmental Permit
EPD	Environmental Protection Division
EU	Environment Unit
IES	International Environmental Specialist
PNG	Papua New Guinea
PPL	PNG Power Ltd
RETA	Regional TA
TA	Technical Assistance
ToR	Terms of Reference
WRD	Water Resources Division

## **1.0 INTRODUCTION**

1. The Pacific developing member countries (DMCs) have developed country safeguards systems (CSS) according to their needs. These safeguards systems have similar objectives, but their requirements, procedures, and guidelines differ. In support of greater country ownership and alignment with country systems, the Asian Development Bank (ADB) is assisting the Pacific DMCs to strengthen their CSS.

2. It is expected that strengthened CSS will not only lead to increased use of CSS in projects supported by ADB and other development partners, but it will also enhance the Pacific DMCs' ownership and will benefit all projects including those domestically-funded. As ADB's Pacific Department (PARD) covers 14 DMCs, the approach would be to gradually strengthen the application of CSS procedures in the Pacific. Considering ADB's ongoing portfolio and projects in the pipeline, PNG is proposed as the priority country for CSS review of environmental safeguards.

3. PNG is the largest country among the Pacific DMCs and receives the largest share of ADB assistance in the region. ADB's major infrastructure projects in PNG are in the transport and energy sectors. Several agencies in PNG have experience in applying PNG's CSS in domestically-funded projects and development partners' safeguard policies in projects funded by development partners.

4. Weaknesses are evident in implementing safeguards in both development partner-assisted and government-funded projects. There is a need to strengthen implementation of PNG's environmental CSS, particularly in the areas of preparing and implementing environmental assessment documents, linking environmental assessment documents with bidding/contract documents, and implementing environmental management plans (EMP).

5. The PNG Government has initiated several measures related to environmental safeguards, such as proposed creation of an environment authority. To support the Government's initiatives, an ADB mission in November 2010 discussed the scope of possible ADB technical assistance (TA) to review PNG's CSS procedures. Meetings were conducted with the Department of National Planning and Monitoring, the Department of Lands and Physical Planning, the Department of Environment and Conservation (DEC), the Department of Works, and PNG Power Limited (PPL). Since then the PNG Government has given its approval to participate in the TA (RETA 7566) which has resulted in the development of this action plan.

### **Objective**

6. The subproject aims to strengthen PNG's CSS in the near term; it focuses on analysis of PNG's safeguard systems and on preparation of an action plan to enhance capacity of the existing country systems, institutions and procedures on environmental safeguards in the energy (hydropower and transmission) sector. This subproject should be viewed as the first phase of TA support to achieving the Government's interest in strengthened CSS capacity. It is expected that the agreed upon action plan (this report) will form the basis for a next phase of TA. Resources to implement the action plan will be sought from Regional Technical Assistance (RETA) 7566 as well as other sources.

## **2.0 OUTCOME**

7. The outcome will be a common framework for (i) strengthening the legal and regulatory framework and (ii) the implementation capacity of country environmental safeguard systems within PNG.

### 3.0 OUTPUTS

8. The TA reviewed CSS activities within the Department of Environment and Conservation (DEC) and how they were implemented within PNG Power Ltd (PPL). The energy (hydropower and transmission) sector was selected for the review since it is one of the priorities of the Government and is relevant to ADB's Country Partnership Strategy for PNG.

9. The TA developed three outputs:

- i. A legal analysis of country systems,
- ii. An assessment of the implementation capacity of key agencies mandated to implement environmental safeguards (DEC and PPL); and
- iii. an action plan that prioritizes needs and recommends gap-filling measures to strengthen the legal and regulatory framework and implementation capacity.

The Action Plan is elaborated on the subsequent sections.

### 4.0 KEY ACTIVITIES IN THE TA

#### 4.1 Activity 1: Legal Analysis of Country Systems.

10. Activity 1 was completed in November 2011 where a workshop was held with participation from DEC, PPL and other line government agencies. The workshop presented the outcome of the review of the legal inventory and analysis of the PNG Legislation with regard to compatibility with ADB's Safeguard Policy Statement (SPS). The final report has been given to the Department of Environment and Conservation.

#### 4.2 Activity 2: Assessment of Implementation Capacity.

11. Activity 2 reviewed the following areas which was presented in a report and as a Draft Action Plan at a workshop held in Port Moresby in August 2012.

- i. Organisational capacity
- ii. Implementation practices and procedures
- iii. Performance of the organisation

12. A draft report of the review included and assessment of;

- i. **Capacity** of key agencies mandated to implement environmental safeguards at the national level (DEC), and at the sector level (PPL). The capacity assessment included assessment of their responsibilities and authorities as defined by PNG's legal framework on environmental safeguards, resources (human, financial, physical, knowledge/information) and tools (manuals, guidelines, checklists, forms records management, etc.);
- ii. Implementation **practices and procedures** used to deliver the environmental safeguards as defined in the law and/or implementing regulations and mandate of DEC and PPL (e.g., screening, classification, scoping, review, approval and clearance, monitoring). using ADB as an example development partner<sup>4</sup> and government-supported projects in the energy (hydropower and transmission) sector. The assessment reviewed two case studies (Yonki Toe of Dam and Erap Hidden Valley Transmission Line) that highlighted (i) what is being done in the actual situation for projects; and (ii) what should be done in order to be deemed acceptable implementation of the CSS. The assessment results were discussed with relevant project stakeholders during the project consultation meeting on the 16<sup>th</sup> August 2012.



- iii. **Performance of** the environmental safeguard systems with respect to delivering desired outputs (e.g., environmental assessment reports, EMPs, environmental monitoring reports) and achieving the desired outcome of the environmental safeguards systems. This was assessed by the two case studies.

### **4.3 Consultation Draft Action Plan**

13. A consultation workshop was held on the 16th August 2012 which discussed the Draft Action Plan with relevant stakeholders; including key government agencies, development partners (e.g. World Bank), and NGOs. The report and an executive summary of the CSS review was circulated in advance of the consultation.

14. The findings of the assessment of implementation capacity, and the recommended measures to address legal issues (identified in the legal analysis) were presented to the participants. Comments received from the participants showed that there was a general consensus on the findings and recommendations contained within the CSS review.

15. These recommendations are now carried into a Final Action Plan which is developed within this document for further consideration by the Government of PNG, and primarily the DEC and PPL. It is intended that the Action Plan will also be circulated to other development partners, including UN Organisations and the World Bank.

## **5.0 ACTION PLAN ACTIVITIES**

### **5.1 Introduction**

16. The initial Action Plan was presented as a brief outline and in a matrix table at the August meeting. The consultation meeting identified three areas which could be addressed as activities by the Action Plan. These are:

- i. Policy and legal strengthening requirements for CSS
- ii. Technical strengthening of CSS procedures
- iii. Capacity building and strengthening within DEC and PPL

17. After the meeting the draft was reviewed and edited to take into account comments received at the meeting. Following this the draft Action Plan was again circulated to DEC and PPL for further comment. The Action Plan and the matrix that is presented here incorporates further comments received from DEC and PPL. The matrix is attached as Annex 1.

18. Each of the three activities is discussed as follows (i) an introductory outline of the issue to be addressed (ii) methodology for addressing the issues and (iii) resources needed for addressing the activity.

## **5.2 ACTIVITY 1: Policy and legal strengthening requirements for CSS**

### **5.2.1 Background to Issues**

19. The first phase of the TA identified areas in the national environmental legislation that lacked equivalence with regard to the ADB safeguards. The review showed that PNG laws and regulations were fully equivalent with 14 of the 48 (29%) the key elements of ADB's environmental safeguards principles, partially equivalent with 19 (38%) and not equivalent with 16 (33%). Additionally other legislation that dealt with natural resource management was also reviewed which showed that there were often inconsistent ministerial responsibilities with implementing the legislation.

20. During the implementation review, DEC staff stated that inconsistencies existed between requirements necessary to process and manage Environment Permits (EPs) and the existing laws and regulations.

21. This activity is designed to strengthen legislation, policies regulations and standards.

### **5.2.2 DEC**

22. Four areas need to be addressed with regard to legislation regulations and standards that apply to DEC's mandate. These are listed in order of priority;

- i. Review and amendment of Environment (Prescribed Activities) Regulation 2002 and Environment (Permits) Regulation 2002
- ii. Review and amend environmental standards contained within the Technical Guideline on Water and Land Discharges.
- iii. A comprehensive review and amendment of the existing Environment Act, 2000 with regard to other national legislation and international agreements.
- iv. The existing Environment Act, 2000 and the associated regulations should be reviewed for strengthening CSS procedures in line with meeting ADB safeguards equivalence.

23. None of the four items should be treated as mutually exclusive with all four having overlapping requirements. However, as an urgent requirement items (i) and (ii) should be the minimum immediate requirements to be reviewed since these relate to current practices where DEC have already highlighted issues with irregularities in the regulation and standards when applied to the EP application process. A particular requirement that is absent from the permitting process is the need to prepare and lodge an EMP for Level 2 applications. Additionally water standards need to be revised to reflect actual PNG conditions so that these can be realistically applied to development projects.

### **5.2.3 PPL**

24. For PPL the *Electricity Industry Act, 2002* also needs to be included within the review to introduce equivalence with CSS requirements.

### **5.2.4 Methodology: Review of DEC Technical and Legal Requirement**

#### **5.2.4.1 Review of DEC Regulations**

25. The most urgent need is to review and amend the Environment (Prescribed Activities) Regulation 2002 and Environment (Permits) Regulation 2002 to ensure

DEC has clear and unambiguous responsibilities with regard to the management of natural resources within PNG. The review needs to address the following.

- i. ensuring DEC has a clear mandate and responsibilities for undertaking environmental and resource management within PNG.
- ii. Requirement to submit an EMP with all Level 2 EP Applications.
- iii. Review fees and charges.
- iv. Review ability to enforce permits.
- v. Establishing equivalence with ADB safeguard systems.

#### **5.2.4.2 Review of Standards**

26. Water quality standards contained within the *Technical Guideline on Water and Land Discharges* need to be reviewed to bring these into line with existing PNG environmental conditions. The review will need to assemble existing water quality data and review it with regard to existing national and international water quality standards. The water quality standards recommended by the review will need to be approved by DEC.

#### **5.2.4.3 Review of DEC Guidelines**

27. Technical guidelines that were developed in 2000 for the EP approval process will need to be updated to meet current requirements in a two stage process. The most immediate and urgent need is to reflect the changes made to the Regulations and Standards by activities 2.2.1 and 2.2.2. These will need to be reviewed again after any changes are made to the *Environment Act 2000* by activity 2.2.4. This review will improve and strengthen the existing environmental permitting application and monitoring processes.

#### **5.2.4.4 Review of Environment Act and Other Legislation**

28. A comprehensive review of the *Environment Act 2000* is required to be undertaken with regard to harmonising it with other national legislation and international environmental agreements. Amended legislation will ensure that DEC has clear and unambiguous responsibilities for the management of the environment and natural resources within PNG.

The review will need to be undertaken with regard to laws and regulations including the following:

- i. the Land Act 1996
- ii. Conservation Areas Act 1978
- iii. laws and regulations governing all non-renewable resources
- iv. laws and regulations governing agriculture, forestry, fisheries and other biological resources
- v. laws and regulations governing state acquisition of land and/or resources
- vi. laws and regulations that create incentives for development of land and renewable and non-renewable natural resources and prescribe fiscal measures that applies to these resources.

29. The review will bring the *Environment Act 2000* into full equivalence with the key elements of ADB CSS as detailed in *Appendix 3 of the PNG CSS Review, November 2011*.

### 5.2.5 Review of PPL Legislation

30. The *Electricity Industry Act, 2002* will be reviewed to introduce equivalence with CSS requirements.

### 5.3 Resources Required

31. The reviews will require the following international personnel.
- i. A Legal Specialist (LS) to be responsible for the reviews of items 2.2.1, 2, 3, 4 and 2.3 and framing new legislation for laws and regulations. Time required 4 months.
  - ii. An Environmental Specialist (ES) to work alongside the LS to advise the LS as required during the review and framing of new legislation and regulations. The ES will be responsible for rewriting the regulations, standards and technical guidelines. Time required 3 months.
  - iii. National consultants including a National Legal Specialist (6 months) and a National Environmental Specialist (6 months). These persons will assist the international consultants in their respective areas.
  - iv. Inputs from DEC and PPL personnel as required assisting the international and national consultants in their tasks.
32. Costs for the activity are shown in Table 1. The basis for computing the costs are shown in Annex 2.

**Table 1: Costs for Activity 1**

Activity	Staff		Months	Costs \$		
				Fees	Other	Total
<b><i>Policy and Legal Strengthening</i></b>						
	<i>International</i>	Legal Specialist	4	72,000	58,200	130,200
		Env Specialist	3	51,000	42,975	93,975
	<i>National</i>	Legal Specialist	6	72,000	6,225	78,225
		Env Specialist	6	60,000	5,625	65,625
	<i>Other</i>	Training and workshops			3,150	3,150
<b>TOTAL Activity 1</b>			<b>19</b>	<b>255,000</b>	<b>116,175</b>	<b>371,175</b>

## 5.4 ACTIVITY 2: TECHNICAL STRENGTHENING OF CSS REQUIREMENTS

### 5.4.1 Background to Issues

33. The second phase of the TA reviewed the technical instruments (Guidelines, Procedures and Code of Practices) that were used particularly by DEC in the EP Application process and to a lesser extent by PPL when implementing the EP. The review showed that the technical instruments were dated and all of them needed strengthening to be effective and to be aligned to ADB CSS. One of the main areas that needs addressing is the requirement for the EMP to be introduced to the permitting process (DEC) and its effective implementation (PPL and DEC).

34. During the review DEC staff reiterated that the guidelines, procedures and codes of practices were well overdue for review and there were no specific guidelines for many of the emerging development activities especially for hydropower and other sectoral projects.

35. This activity is designed to strengthen the technical instruments (Guidelines, Procedures and Code of Practices).

#### 5.4.1.1 DEC

36. Five areas need to be addressed with regard to the strengthening of the technical instruments as they apply to DEC's mandate.

- I. Review and update DEC Guidelines and Procedures including: those especially for preparing an EMP and associated monitoring requirements.
- II. Review and update permitting requirements within Level 2 and 3 applications especially with regard to improving reporting areas such as selection of alternatives, public consultation and information disclosure, and a grievance redress mechanism,
- III. Develop and update sectoral guidelines for reviewing emerging EP Application areas in:
  - i. Hydropower
  - ii. Mining
  - iii. Transmission lines
  - iv. Harbour installations
  - v. Roads and bridges and Infrastructure
- IV. Review and update Codes of Practices for;
  - i. Sanitary Land Fill
  - ii. Vehicle and Machinery Repair Areas
  - iii. Fuel Storage including bulk terminals, resale and usage sites
  - iv. Oil Palm Processing Industry
  - v. Roads and Bridges and Infrastructure
  - vi. Mining Industry Code of Practice
- V. Strengthening of office procedures in the areas of:
  - i. Preparation of EP Application processing checklists

- ii. Collation of basic EP Application processing data and development of electronic processing of EP Applications

#### **5.4.1.2 PPL**

37. For PPL, the development of monitoring and reporting requirements for the staff within the Environmental Unit (EU) is essential to ensure compliance with ADB CSS requirements.

### **5.4.2 Methodology: Review of Technical Strengthening in the Application of CSS Procedures**

#### **5.4.2.1 Update DEC Guidelines and Procedures**

38. An urgent need is for all of DEC's guidelines to be reviewed and new guidelines created where a need is shown. One that is urgently required is a guideline to establish the format for preparing an EMP and its associated monitoring requirements. Presently there is no requirement for an EMP to be prepared at the time of lodging an EP Application for Level 2 developments.

39. All guidelines should follow a basic format and be easy to understand both by developers and DEC staff who will need to review the EP Application. Existing guidelines should first be reviewed and then developed in association with DEC staff.

#### **5.4.2.2 Update Operations Manual - Permitting Requirements**

40. There is a need to review the permitting requirements within Level 2 and 3 applications especially with regard to improving reporting areas such as selection of alternatives, public consultation and information disclosure, and a grievance redress mechanism. These will be developed and incorporated into a revised Operations Manual.

#### **5.4.2.3 Develop and Update Sectoral Guidelines**

41. To keep abreast of changes and maintain efficiencies in approving development projects, one of the areas that DEC needs to undertake is to reorganise itself into sectoral review areas such as in hydropower, mining, transmission lines, harbour installations, roads and Bridges etc.

42. New guidelines will need to be written for these areas by persons who have sufficient experience within these sectors to be able to pass this information on within the guidelines. Additionally staff training in the use of the guidelines will also be required.

#### **5.4.2.4 Update Codes of Practice**

43. Codes of Practices (COP) and sectoral guidelines were issued for a number of industries to encourage Best Practice for proponents to follow. These COPs and sectoral guidelines were issued from 1995 to 2000. These are now out-dated as industries have developed new technology and modernised.

The existing CoPs cover:

- i. Code of Practice for PNG Oil Palm Processing Industry
- ii. Key Standards for Selective Logging
- iii. Code of Practice for Sanitary Landfill
- iv. Code of Practice for Vehicle & Machinery Works and Petroleum Storage, Resale and Usage Sites

- v. Environment Guidelines for Roads and Bridges
  - vi. PNG Mining Industry Environmental Code of Practice.
44. All of the existing Codes of Practices (CoP) will require to be reviewed and new CoPs developed as required. These will complement the proposal to re-organise DEC's reviewing capacity to a sector based activities whereby specific sectoral CoPs will be required for these sectors.
45. The review will require close liaison to be developed with the industrial sectors by a series of meetings so that both industry and DEC achieve a common goal in the development of revised and new CoPs. This will ensure that the CoPs are relevant to the industry or sector so that both environmental and industrial best practice is achieved.

#### **5.4.2.5 Strengthening of Office Procedures**

46. This will address the need to strengthen DEC office procedures in the following areas:
- i. Preparation of an EP Application processing checklist
  - ii. Collation of basic EP Application processing data
  - iii. Development of an electronic processing system for EP Applications.
  - iv. Development of electronic recording systems for processing checklists, EP monitoring requirements and to determine audit needs, collection of Application statistics, enforcement etc.
47. While EPs are received within DEC, there is no checklist to monitor the progress of the EP assessment. Having one in place will ensure proponents are informed as to the status of their application and allow better control of the application within the period of assessment as stated in the *Environmental Act 2000*.
48. There is a need for the collation of basic EP Application processing data. Presently this is held in a Registrar and there is no further analysis of this in regard to such basic data as the number of applications received and processed in a year or whether there are changes in the types of applications being received. Without this information it is difficult for DEC to plan ahead to justify budget increases or to reorganise its staff to cope with emerging sectors.
49. Apart from providing a checklist to be attached to every application it is recommended that an electronic processing system be developed which has been promoted by DEC. The system would share a data base that will allow all applications to be lodged within it and also allow data to be retrieved as required to review and track the progress of the EPs that have been issued and also those that may have expired. By this process, appropriate warnings and fees will be administered as stipulated in the *Environmental Act 2000*. A software developer will be required for this component which will need to be supported by a training program.
50. A revised Procedure Manual will be developed. Training sessions will be required to introduce the new systems to DEC staff.

#### **5.4.2.6 Update PPL Procedures**

51. PPL do not have any guidelines or procedures. Environmental awareness and development of monitoring and reporting requirements within PPL will be reviewed and updated to ensure equivalence with DEC's CSS requirements. The guidelines and procedures will improve PPL's abilities in terms of submitting applications and implementation of approved projects, including their monitoring. A Procedure Manual

will be developed. Training sessions will be required to introduce the new systems to PPL staff.

### 5.4.3 Resources Required

52. The reviews and development of guidelines and CoPs will require the following international personnel.

- i. An International Environmental Specialist (IES) to be responsible for the review and development of items 5.4.2.1 through to 5.4.2.6. The IES will be responsible for reviewing and developing new CoPs and sectoral guidelines. Time required 4 months.
- ii. A National Environmental Specialist (6 months) to assist the IES.
- iii. Funds will be required to contract out the development of the computer based electronic processing and recording system to a software organisation.
- iv. Inputs from DEC and PPL personnel as required to assist the international and national consultants in their tasks.
- v. An allowance is made in the budget for training sessions for (i) introduction of the electronic processing and management system which should be supplied with its own training sessions and (ii) introduction to the new guidelines and procedures.

53. Costs for the activity are shown in Table 2. The basis for computing the costs are shown in Annex 2.

**Table 2: Costs for Activity 2**

Activity	Staff		Months	Costs \$		
				Fees	Other	Total
<b>Technical Strengthening of CSS Requirements</b>						
	<i>International</i>	Env Specialist	4	68,000	58,000	126,000
	<i>National</i>	Env Specialist	6	60,000	5,625	65,625
	<i>Other</i>					
	Computer software and training				31,500	31,500
	Computers and environmental equipment				31,500	31,500
	Training and workshops				5,250	5,250
<b>TOTAL Activity 2</b>			<b>10</b>	<b>128,000</b>	<b>131,875</b>	<b>259,875</b>



## **5.5 ACTIVITY 3: CAPACITY BUILDING AND STRENGTHENING**

### **5.5.1 Background to Issues**

54. The second phase of the TA showed that abilities within DEC and PPL to implement environmental safeguards effectively is weak in human resource capacity in terms of qualifications and experience, technical training and provision of support such as office facilities and equipment, and logistical support.

55. While the overall issue that impacts on this area is an inadequate budget, this is additionally compromised by inadequate staff capacity and lack of resources. This ultimately feeds through to DEC's inability to be able to provide timely technical feedback to the Environmental Impact Statements (EIS) and other documents.

56. For PPL the main requirement is for a better definition of the role of the Environmental Officer (EO) within the management system and a better understanding of the place of CSS procedures in the project management cycle.

57. During the review, it was noted that there is a dearth of technical capacity within the Environmental Protection Division staff to be able to effectively review proposal documents which now cover a wider range of development activities.

58. This activity is designed to build capacity building within DEC and PPL.

#### **5.5.1.1 DEC**

59. Three areas need to be addressed to build technical capacity within DEC to adequately perform its mandate under the *Environmental Act 2000*. These are listed in order of priority;

- i. Training in the application of existing and planned DEC CSS procedures.
- ii. Reorganisation and developing capacity within staff to handle EP Applications on a sector basis, e.g. hydropower, mining, roads and bridges etc.
- iii. Possible revamping of Water Resources Division to address water resources and the development of the Nation's water resources with regard to future water related developments including hydropower and CDM certification.

60. These programs will also require support in terms of provision of equipment such as hydrographic equipment for discharge measurement, field water quality testing equipment, noise meters, hydrographic analytical tools, GPS devices, digital cameras, etc.

#### **5.5.2 PPL**

61. Capacity building within PPL is required in the following areas:

- i. Raising awareness within senior and project management staff to the role of environmental assessment and management requirements in the project cycle.
- ii. Appointment of additional staff to be able to undertake CSS requirements.
- iii. Creation of an Environmental Unit (EU) with its own facilities and budget.
- iv. EU staff training in DEC CSS procedures and development of PPL CSS procedures.
- v. The development of monitoring and reporting capacity in EU staff.

- vi. Reviewing and preparing the EMP for inclusion in B&C documents.
  - vii. Evaluation of bid documents with regard to contractor's ability to address the EMP requirements.
  - viii. Raising awareness within contractor regarding compliance with the requirements of the EP and EMP during construction.
62. Monitoring programs will also require support in terms of provision of equipment such as field water quality testing equipment, noise meters etc.

### **5.5.3 Methodology: Technical Capacity Needs Assessment DEC**

#### ***5.5.3.1 Training and Application of DEC CSS Procedures***

63. A technical capacity training needs assessment will be required to be undertaken to determine the levels of skills that each staff has and their training needs for staff within the Environmental Protection Division. This will assess their understanding of the CSS procedures that they are administering. Following this a training program will be developed to address the issues which will be linked to the next activity as staff will be reorganised on a sector management basis.

#### ***5.5.3.2 Reorganisation of Staff to Manage Applications on a Sector Basis***

64. The present system whereby there is no technical specialisation within DEC staff leads to inefficiencies and hampers processing of Applications. It is recommended that DEC be reorganised along a resource use sector basis. The first task will be to identify those sectors that will become increasingly important and using the training needs assessment identified above to train staff in assessing Applications on a specific sector basis. Field monitoring equipment will also be required to support staff in implementing their duties.

#### ***5.5.3.3 Review of Water Resources Division***

65. The Water Resources Division (WRD) has essentially faded away due to lack of budget and resources. This division needs to be resuscitated to meet the expanding demands for water use of water resources within PNG. As DEC has been unable to provide this service it has been left to other organisations to establish their own systems which has fragmented the collection and distribution of hydrographic data. Additionally the WRD also need to be in charge of water quality monitoring and inputs into establishing a set of realistic national water quality standards.

### **5.5.4 Building Technical Capacity within PPL**

#### ***5.5.4.1 Raising within Awareness of CSS within PPL***

66. Within PPL, there is an urgent need to raise awareness with regard to CSS procedures within project management especially senior staff and project managers. The review will develop a series of awareness training sessions that will be directed at senior staff and project managers. Additionally staff job descriptions will need to be addressed to ensure that responsibility for compliance with CSS procedures is placed firmly within senior and project management staff.

#### ***5.5.4.2 Establishment of an Environmental Unit , Staffing and Training***

67. There is a need for additional staff within PPL to comply with DEC CSS procedures and PPL procedures which will be developed as part of Activity 2. This

will ensure all PPL projects and assets are comprehensively supported by robust CSS activities.

68. PPL will need to establish an Environmental Unit (EU). Without the unit the objectives of the other recommended supporting activities will be unobtainable. PPL will need to commit to this requirement.

69. A training program will be established that builds staff capacity within the additional staff to be recruited to the EU to develop skills especially in developing and managing EMPs, developing monitoring and reporting functions and the capacity to evaluate contractors' bids regarding compliance with the EP and EMP.

#### **5.5.4.3 Raising Awareness in Contractors**

70. The implementation review showed that little regard was placed in applying the EP or EMP conditions during construction. It would appear that contractors are either unwilling or are mainly ignorant of the need to comply with EMP conditions, this can lead to non compliance and an unsustainable conclusion to the project.

71. An awareness training program needs to be developed for contractors that PPL will employ. The program could have two audiences one a short introductory session that would be given to contractors at the time of bidding to explain the requirements of the EMP conditions and a second more detailed presentation that would present EMP and EP compliance requirements to the selected contractor prior to mobilisation. It is recommended that this be held in the PPL Training Centre and be open to contractors outside PPL as well so that PPL do this as a public service to raise contractor awareness throughout PNG.

#### **5.5.5 Resources Required**

72. The technical training needs assessment and capacity building will require the following personnel.

- i. An International Environmental Specialist (IES) to be responsible for reviewing and planning the inputs required for all of the activities. Time required 3 months.
- ii. An International Hydrographic Specialist (IHS) to re-establish the WRD and put in place recording and data processing systems. This person would also design and implement a hydrographic training program. Time required 6 months.
- iii. A National Environmental Specialist to assist the IES. Time required 6 months.
- iv. A National Hydrologist to assist the IHS. Time required 6 months.
- v. Inputs from DEC and PPL personnel as required assisting the international and national consultants in their tasks.
- vi. An amount has been allowed in the budget to meet the costs of equipment and training workshops.

73. Costs for the activity are shown in Table 3. The basis for computing the costs are shown in Annex 2.

**Table 3: Costs for Activity 3**

Activity	Staff		Months	Costs \$		
				Fees	Other	Total
<b>Capacity Building and Strengthening</b>						
	<i>International</i>	Env Specialist	3	51,000	42,975	93,975
		Hydrographic Specialist	6	102,000	97,500	199,500
	<i>National</i>	Env Specialist	6	60,000	5,625	65,625
		Hydrologist	6	60,000	5,625	65,625
	<i>Other</i>	Hydrographic Equipment			52,500	52,500
		Training and workshops			5,250	5,250
<b>TOTAL Activity 2</b>			<b>21</b>	<b>273,000</b>	<b>209,475</b>	<b>482,475</b>

## 6.0 THE NEXT STAGE

74. Three activities are proposed that are designed to address gaps in legislation and implementation of CSS activities within DEC and PPL. The activities focus on addressing issues in:

- Policy and legal strengthening requirements for CSS
- Technical strengthening for CSS procedures
- Capacity building and strengthening within DEC and PPL

75. The total cost of the Action Plan is \$1,113,525 and is shown in Table 4.

**Table 4: Budget Summary for Cost of all Activities**

Staff		Months	Costs \$		
			Fees	Other	Total
<i>International</i>	Legal Specialist	4	72,000	58,200	130,200
	Env Specialist	10	170,000	143,950	313,950
	Hydrographic Specialist	6	102,000	97,500	199,500
<i>National</i>	Legal Specialist	6	72,000	6,225	78,225
	Env Specialist	18	180,000	16,875	196,875
	Hydrologist	6	60,000	5,625	65,625
<i>Other</i>	Computer S'ware			31,500	31,500
	DEC/PPL comp. monitor equip.			31,500	31,500
	Hydrographic Equipment			52,500	52,500
	Training and workshops			13,650	13,650
<b>TOTAL all Activities</b>		<b>46</b>	<b>656,000</b>	<b>457,525</b>	<b>1,113,525</b>

76. Before the Action Plan is implemented meetings will need to be held with both DEC or PPL to seek the following:

- i. The ADB will review the Action Plan and decide whether to proceed any further with and with possible changes,
- ii. The ADB will arrange to forward the approved Action Plan to DEC and PPL.
- iii. Following their review of the Action Plan and any adjustments to it both DEC and PPL will need to agree to implement with the Action Plan and express their willingness to implement it.
- iv. The ADB will re-evaluate the budget in line with its own resources and identify areas in the budget that will need to be met from PNG resources. Commitments will need to be provided by both organisations with regard to meeting these requirements.

- v. Once these commitments have been realised ADB will proceed to support the TA. At this time further support for the TA may also be raised with other funding organisations.
- vi. Consultants are then recruited and the technical inputs to the TA comment

## Annex 1

### MATRIX OF ACTIVITIES

Activity No.	Action	To be considered by Organisation	Priority Ranked 16 August
1.0	<b><i>Policy and Legal Strengthening Requirements</i></b>		
1.1	<p>Comprehensive review and amendment of the <i>Environment Act 2000</i> with regard to (i) other national legislation and (ii) international environmental agreements to ensure that DEC has clear and unambiguous responsibilities for the environmental management of natural resources within PNG</p> <p>Review 1.1 with regard to laws and regulations including:</p> <ul style="list-style-type: none"> <li>- <i>the Land Act 1996</i></li> <li>- <i>Conservation Areas Act 1978</i></li> <li>- laws and regulations governing all non-renewable resources</li> <li>- laws and regulations governing agriculture, forestry, fisheries and other biological resources</li> <li>- laws and regulations governing state acquisition of land and/or resources</li> <li>- laws and regulations that create incentives for development of land and renewable and non-renewable natural resources and prescribe fiscal measures that applies to these resources.</li> </ul> <p>Review to be carried out with to bring Act into full equivalence with the key elements of ADB CSS as detailed in <i>Appendix 3 of the PNG CSS Review, November 2011</i>. Attached as Annex B to this report.</p>	Attorney General, DEC and other ministries	6 DEC
1.2	<p>Review and amend the <i>Environment (Prescribed Activities) Regulation 2002</i> and <i>Environment (Permits) Regulation 2002</i> to ensure DEC has clear and unambiguous responsibilities for the management of natural resources within PNG. With regard to:</p> <p>(i) ensuring DEC has a clear mandate and responsibilities for undertaking environmental and resource management within PNG.</p>	Attorney General, DEC and other ministries as required.	1 DEC

Activity No.	Action	To be considered by Organisation	Priority Ranked 16 August
	(ii) Review fees and charges. (iii) Review ability to enforce permits. (iv) Establishing equivalence with ADB safeguard systems.		
1.3	Review water quality standards contained within the <i>Technical Guideline on Water and Land Discharges</i>	DEC	1 DEC
1.4	Develop DEC policy framework for CSS to align with Guidelines.	DEC	2 DEC
1.5	(i) Review and possible amendment of <i>Electricity Industry Act 2000</i> to incorporate CSS requirements. (ii) Incorporate environmental goals within PPL statement on Vision, Values and Goals.	Attorney General, PPL and other ministries as required.	2 PPL
<b>2.0</b>	<b><i>Technical Strengthening for CSS Procedures</i></b>		
2.1	Review and update DEC Guidelines and Procedures including: a. Guidelines especially for preparing an EMP and associated monitoring requirements. b. Review permitting requirements within Level 2 and 3 applications especially with regard to improving reporting areas such as selection of alternatives, public consultation and information disclosure, and a grievance redress mechanism.	DEC	1 DEC
2.2	Review and updating Permitting Requirements within Operations Manual	DEC (added after review)	
2.3	The development of Sectoral Guidelines for reviewing emerging EP Application areas in: a. Hydropower b. Mining	DEC	1 DEC

Activity No.	Action	To be considered by Organisation	Priority Ranked 16 August
	<ul style="list-style-type: none"> <li>c. Transmission lines</li> <li>d. Harbour installations</li> <li>e. Roads and bridges etc</li> </ul>		
2.4	Review and updating Codes of Practice for emerging sectors such as hydropower, mining, LNG, transmission lines, harbour installations etc	DEC	1 DEC
2.5	<p>Strengthening of office procedures in the areas of:</p> <ul style="list-style-type: none"> <li>a. Preparation of EP Application processing checklists</li> <li>b. Collation of basic EP Application processing data</li> <li>c. Development of electronic processing for lodging and tracking EP Applications.</li> <li>d. Development of electronic tools for processing checklists, EP monitoring requirements and to determine audit needs, collection of Application statistics, enforcement etc,</li> </ul>	DEC	1 DEC
<b>3.0</b>	<b><i>Capacity Building and Strengthening within DEC and PPL</i></b>		
<b>3.1</b>	<b><i>DEC</i></b>		
3.1.1	Technical training in the application of existing and planned DEC CSS review and implementation procedures.	DEC	3 DEC
3.1.2	Development of organisational structure and staff capacity to handle EP Applications on a sector basis, e.g. mining, roads and bridges, energy etc.	DEC	3 DEC
3.1.3	Improving water resources branch to be able to monitor hydrological data and undertake water quality assessment.	DEC	5 DEC
<b>3.2</b>	<b><i>PPL</i></b>		



<b>Activity No.</b>	<b>Action</b>	<b>To be considered by Organisation</b>	<b>Priority Ranked 16 August</b>
3.2.1	(i) Training and awareness raising in senior and project management staff in the role of environmental assessment and management requirements in the project cycle. (ii) Review of senior and project management job descriptions to include higher level responsibility for environmental management.	PPL	1 PPL
3.2.2	Appointment of additional staff to be able to undertake CSS requirements.	PPL	4 PPL
3.2.3	Creation of an Environmental Unit (EU) with its own facilities and budget.	PPL	3 PPL
3.2.4	EU staff training in DEC CSS procedures and development of PPL's own CSS procedures.	PPL	5 PPL
3.2.5	Developing monitoring and reporting capacity in EU staff.	PPL	6 PPL
3.2.6	Develop procedures to include the EMP as a section of the Bid and Contract document.	PPL (added after review)	
3.2.7	Develop procedures to evaluate bids (e.g. by awarding part of the bid evaluation points) for contractor's compliance with the EP and EMP conditions so that only competent contractors are employed on PPL works.	PPL (added after review)	
3.2.8	Only engage contractors that have either been certified via a national training program on environmental compliance with EP and EMP or are already ISO 14001 certified. At the time of bidding contractors must demonstrate ability to meet the EP and EMP requirements and show that they have competent staff to implement the environmental management requirements.	PPL (modified after review)	
<b>3.3</b>	<b><i>Contractors and Permit Holders</i></b>		
3.3.1	Promote training and certification programs for contractors and permit holders with appropriate training organisations to understand compliance requirements of the EP and EMP.	PPL and DEC (modified after review)	

Priority ranking refers to the ranking given to the activities by participants at the consultation meeting held on 16 August in Port Moresby.

## ANNEX 2: DETAILED BUDGET

Activity	Consultant	Fees (1)			Per diem (2)			Travel (3)			Other (4) Incidentals	Total (5) 1+2+3+4	Contingency (6) 5%	TOTAL 5+6
		Months	Base cost	Cost	(mths)	Base	Cost	trips	Cost/trip	Cost				
<b>Activity 1</b>	<b>International Personnel</b>													
	Legal Specialist	4	18,000	72,000	3	450	40,500	2	4,500	9,000	2,500	124,000	6,200	130,200
	Env Specialist	3	17,000	51,000	2	450	27,000	2	4,500	9,000	2,500	89,500	4,475	93,975
	<b>National Personnel</b>													
	Legal Specialist	6	12,000	72,000							2,500	74,500	3,725	78,225
	Env Specialist	6	10,000	60,000							2,500	62,500	3,125	65,625
	<b>Other</b>													
	Training and workshops										3,000	3,000	150	3,150
	<b>TOTAL Activity 1</b>			<b>255,000</b>	<b>5</b>		<b>67,500</b>	<b>4</b>		<b>18,000</b>	<b>13,000</b>	<b>353,500</b>	<b>17,675</b>	<b>371,175</b>

Activity	Consultant	Fees (1)			Per diem (2)			Travel (3)			Other (4) Incidentals	Total (5) 1+2+3+4	Contingency (6) 5%	TOTAL 5+6
		Months	Base cost	Cost	(mths)	Base	Cost	trips	Cost/trip	Cost				
<b>Activity 2</b>	<b>International Personnel</b>													
	Env Specialist	4	17,000	68,000	3	450	40,500	2	4,500	9,000	2,500	120,000	6,000	126,000
	<b>National Personnel</b>													
	Env Specialist	6	10,000	60,000							2,500	62,500	3,125	65,625
	<b>Other</b>													
	Computer Software										30,000	30,000	1,500	31,500
	Computers and environmental equipment										30,000	30,000	1,500	31,500
	Training and workshops										5,000	5,000	250	5,250
	<b>TOTAL Activity 2</b>			<b>128,000</b>	<b>3</b>		<b>40,500</b>	<b>2</b>	<b>4,500</b>	<b>9,000</b>	<b>70,000</b>	<b>247,500</b>	<b>12,375</b>	<b>259,875</b>

Activity	Consultant	Fees (1)			Per diem (2)			Travel (3)			Other (4) Incidentals	Total (5) 1+2+3+4	Contingency (6) 5%	TOTAL 5+6
		Months	Base cost	Cost	(mths)	Base	Cost	trips	Cost/trip	Cost				
<b>Activity 3</b>	<b>International Personnel</b>													
	Env Specialist	3	17,000	51,000	2	450	27,000	2	4,500	9,000	2,500	89,500	4,475	93,975
	Hydrographic Specialist	6	17,000	102,000	5	450	67,500	4	4,500	18,000	2,500	190,000	9,500	199,500
	<b>National Personnel</b>													
	Env Specialist	6	10,000	60,000							2,500	62,500	3,125	65,625
	Hydrologist	6	10,000	60,000							2,500	62,500	3,125	65,625
	<b>Other</b>													
	Hydrographic equipment										50,000	50,000	2,500	52,500
	Training and workshops										5,000	5,000	250	5,250
	<b>TOTAL Activity 3</b>			<b>273,000</b>	<b>7</b>		<b>94,500</b>	<b>6</b>		<b>27,000</b>	<b>65,000</b>	<b>459,500</b>	<b>22,975</b>	<b>482,475</b>