

Environmental Monitoring Report

Semiannual Report
January – June 2016

Papua New Guinea: Pilot Border Trade and Investment Development Program

Prepared by Border Development Authority for the Government of PNG and the Asian
Development Bank.

This Semi-annual Environmental Monitoring Report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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PNG: Wutung Pilot Border Trade and Investment Development Project.

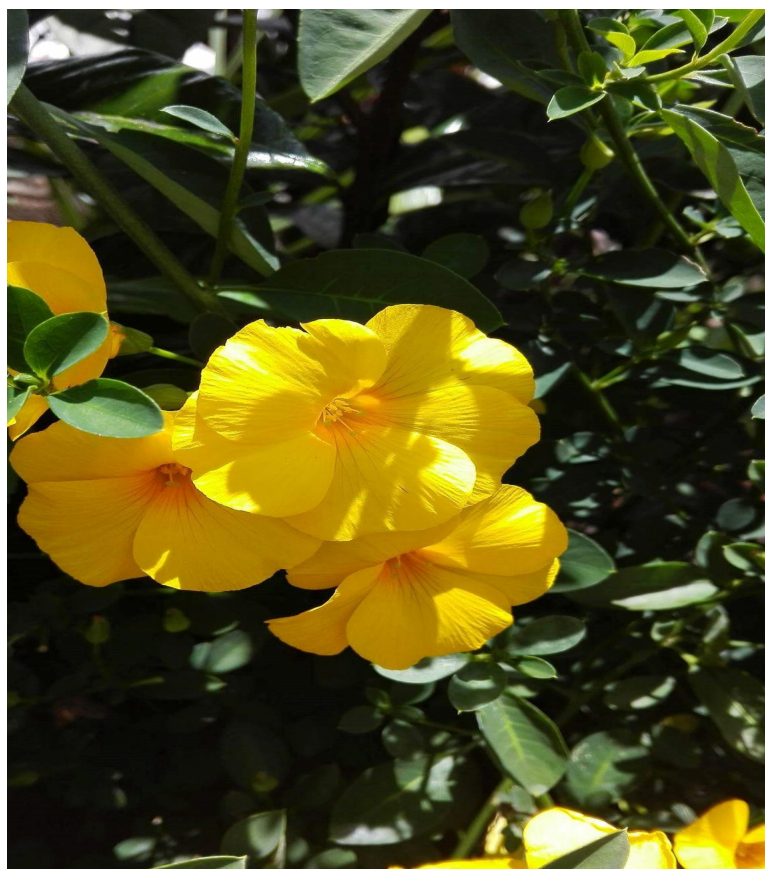
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Wutung Pilot Border Trade & Investment Development Project



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1.0 Introduction

1. The objectives of the Wutung Pilot Border Trade Investment Development Project (PBTIDP) are to remove the infrastructure bottleneck on the transport corridor and to improve the investment environment in West Sepik Province (WSP) so that trade opportunities can be opened up and potential businesses promoted in the region. The Project aims to develop WSP into a dynamic growth centre for Papua New Guinea (PNG) that can drive the development of the Momase Region including East Sepik, Madang and Morobe Provinces and to other parts of PNG.
2. This project is funded through the Asian Development Bank under Loan 2591 – PNG (SF) and the Executing Agency (EA) is the Border Development Authority (BDA).
3. The PBTIDP consists of the following three components:
 - i. construction of border facilities at Wutung;
 - ii. capacity development; and
 - iii. a social development program.
4. These components remain the same as originally conceived in the Project Design and is intended to produce the following outputs:
 - i. border facilities including customs, immigration, and quarantine facilities; residential housing, roads, car parks, and facilities for public convenience such as kiosk, and bus shelter;
 - ii. one stop service office under BDA for promoting trade investment, and tourism for WSP and the other provinces of PNG;
 - iii. broadened human capital base with 500 individuals trained in commerce and trade; and
 - iv. improved human development in the five border villages.
5. This report is the Semi-annual Environmental Management Report (EMR) covering the period of January 2016 to June 2016.
6. It is reported against the Environmental Management Plan (EMP) for the Project that was designed to monitor and manage the extent of variations and changes in the levels of pollutions in the environment surrounding the project site and the indicators considering the implementation or operation of the project. The EMP was based on the internationally accepted environmental management particularly Asian Development Bank Safeguard Policy Statement (ADB SPS 2009) and existing environmental laws and regulations of the Government of PNG (GoPNG).
7. The Environmental Management Plan (EMP) is designed to ensure that the mitigating measures recommended to addressing the adverse impacts of the project on environment, life and property are properly followed while positive impacts are enhanced to gain maximum benefit.

2.0 Monitoring Activities

8. Environmental monitoring was performed by personnel from the Border Development Authority, Project Management Office (PMO); i.e. Project Engineers & Environment/Safeguard Officer.

9. Monitoring was usually performed continuously with reports prepared by the Contractor and the supervising consultant on a monthly basis and submitted to the BDA.
10. Since the completion of the Civil Works (CSTB 2113 & CSTB 2114) and Consulting Supervision (CSTB¹ 2115) the task was assigned to the PMO. The PMO prepares a summary report each month or quarterly to highlight any areas of concern or any issues which may have arisen during the month/quarter to the BDA.

3.0 Work in Progress

11. The two main office complexes including the Quarantine building, the bonded warehouse, vehicle inspection, wash bay, five new H65 houses, guard houses, gen-set houses, bus-stop, a crafts market, all electricity and communications systems, and utilities have been substantially completed. The office furniture and electrical appliances including communications and the V-Sat for internet have been purchased and installed. All other equipment such as UPS² and CCTV³ were all contracted out and are now in their installation and commissioning phases.
12. The certificate of completion for both Civil Contracts has been issued and the defects liability periods have lapsed. The two (2) civil contracts (CSTB 2113 & CSTB 2114) are now officially completed.
13. BDA has contracted a local contractor to seal the access road and car-parks within the new office complex as this item was not part of the original building works contract. The works is at the moment about 97% complete and only needs to be painted or marked.
14. BDA agreed to start operating some of the new facilities before the actual opening of the Multi-Million Kina Project.
15. For progress photographs please refer to the quarterly progress report previously submitted.

4.0 Monitoring Results and Actions Required

16. The contract for Supervising Consultants (Alexander & Lloyds) expired in November 2014 and BDA has taken the role of both supervising the Project and monitoring the environmental impacts the project incurs on the surroundings.
17. BDA is following the EMP and there have not been any major environmental impacts occurring as a result of the operations on the minor contracts. Occupational health and safety on site is incorporated into the working ethics which BDA is implementing. All minor contractors' workers are always having appropriate personal protection equipment (PPE) when on site. This has improved over the last months and BDA as the Executing Agency of PBTIDP considers occupational health and safety as being an important issue for its workers.

¹ CSTB – Central Supply and Tenders Board.

² UPS – Uninterruptible Power Supply, An uninterruptible power supply, also uninterruptible power source, UPS or battery/flywheel backup, is an electrical apparatus that provides emergency power to a load when the input power source or mains power fails.

³ CCTV - Closed-circuit television (CCTV), also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors

18. Fortunately no major accidents has occurred on site to date although there have been a number of minor incidents resulting in minor cuts and abrasions. The BDA will continue to ensure that the minor contractors observe improved OHS⁴ conditions.
19. Disposal of domestic wastes from the camp site requires more frequent attention to avoid unpleasant odours and possible health risks to occupants of the camp and the nearby Wutung village. BDA has proposed to acquire a customary piece of land for waste disposal but to date no attempt was made by the Ward Development Committee (WDC) to identify a parcel of land.
20. The waste disposal site currently used is found to be less than satisfactory with wastes being dumped at random with no attempt made to sort wastes or to cover the waste material appropriately. These conditions are not sanitary and there is a risk of contamination of ground water resources and spread of disease through vermin, insects, and human contact.

5.0 Summary and Conclusions

21. The sealing works eventually ended the weathering and erosion at the office complex and these been a reduction in the land slips around the CSTB 2113 area which was a concern previously.
22. Towards the end of May 2016 no major environmental impacts or damages occurred that would affect the Social Projects both the Water Supply and the Sanitation.
23. BDA and the Ward Development Committee urgently needs to secure a location for the dumping of rubbish and wastes from the camp site and the residential dwellings. It is already posing a risk for bad odour and pollution within the locality.
24. Every other Environmental issue is under control and monitored well by BDA and these are elaborated in Table 1.

⁴ OHS – Occupational Health and Safety.

Table 1 Environmental Monitoring and Management Checklist (Jan-June) 2016

Item/Impact		Action/Mitigation Measure	Mitigation Implementation		Impacts Observed/Location	Action Required (incl. by date)	BDA/Contractor Response
Item Description	Environmental Impacts		Yes/No	Effectiveness (1 to 5)			
Operation of construction plant & equipment creating noise	1-Noise in community	1-Maintain construction vehicles exhaust systems	Yes	5	There are not many vehicles and equipments after the completion of the civil works. Both BDA and the minor contractors (Sealing Works) have all purchased brand new vehicles and have been maintained in very good condition. Vehicle exhaust systems are all in perfect condition and there is no evidence of noise or air pollution from exhaust emissions. The social development works (water supply, power, and Sanitation) and the Sealing works have agreed to work to agreed hours and the site and surrounding area is not disturbed by their activities outside these hours. BDA & the Sealing Contractor not in good terms with villagers to agree on works schedule. Safety equipments have been purchased for the employees. Employees without appropriate equipment will no longer be allowed on construction sites.	Nil	Personal safety equipment provided and being used by employees contracting workers on site
	2-Impact on construction workers	2-Minor Contractors developed a schedule of operations with village chiefs & BDA to identify days of no work & hours for certain activities	Yes	5			
		3-Agree works schedule with village leaders	No	2			
		4-Provide workers with noise abatement equipment	Yes	2			
		5-Complaints addressed by BDA	Yes	4			

Effectiveness rating; 1 = non-compliant - corrective actions required; 2 = partial compliance – corrective or alternative actions required; 3 = adequately implementing CEMP measures; 4 = more than adequately implementing CEMP measures; 5 = excellent compliance, incl. measures in addition to CEMP

Item/Impact		Action/Mitigation Measure	Mitigation Implementation		Impacts Observed/Location	Action Required (incl. by date)	BDA/Contractor Response
Item Description	Environmental Impacts		Yes/No	Effectiveness (1 to 5)			
Works in or adjacent to rivers & streams & in the vicinity of the coast	1-Construction materials are washed out into receiving waters	1-Use of silt control devices & sediment traps/fences during construction activities	Yes	4	Runoff from the site is minimal mainly due to the very porous nature of the limestone material underlying the entire site. Most rainfall is absorbed directly into the ground and there is very little surface runoff from the site. Even the Sealing of the entire office area as decreases the level of soil runoff during wet season. The access track to the area at the south of the administration complex has been completed. Drainage and erosion control measures has already been addressed. Proper drainage system needs to be scoped and redo on site (CSTB 2113). There is no evidence of pollution of adjacent streams, the ocean or the underground water reserves. All liquids and materials on site are stored appropriately in secure and safe areas. Gravel and boulders have been extracted from local streams for construction of 80KL and 90KL tanks for the water supply project. This has not caused any erosion or landslip.	Sealing Contractor to complete clean up, drainage and erosion control measures.	BDA to do re-scoping for proper asphalt laying and drainage system for the sealing contract.
	2-Reduction in river & coastal water quality	2-Minimize size & duration of cleared areas & undertake progressive re-vegetation of cleared/work areas	Yes	5			
		3-Avoid clearing activities & excavation activities during rainy season where possible	Yes	5			
		4-No discharges to rivers, surface waters, intertidal or coastal areas	Yes	5			
		5-Appropriate storage & disposal of spoils	Yes	5			
		6-Abstraction from, or pollution of water resources & coastal waters not permitted	No	4			
		7-All waste materials & chemicals stored properly away from the coast, surface waters or rivers	Yes	3			

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Item Description	Environmental Impacts		Yes/No	Effectiveness (1 to 5)			
Clearing, grubbing, cut & fill activities	1-Soil erosion & silt generation	1-Stockpiles on unused or non-agricultural land	Yes	3	Gravel extraction from streams has stopped for Contract 2113 due to its completion. This work is used to be performed under the supervision of the Contractor's environment officer and to date no evidence of erosion of stream banks or beds as a result of this work. Borrow area is well managed and that undue erosion or sedimentation is not occurring as a result of the borrow operations.		
	2-Sediment contamination of rivers	2-Erosion monitored & rapid stabilization done as required for unexpected events	Yes	5			
	3-Gravel extraction from rivers leads to erosion	3-Slope areas re-vegetated as quickly as possible	Yes	2			
		4-Uncontrolled tipping of soils or any other materials not permitted	Yes	3			
Accidental Spills of hazardous substances & need for emergency response	1-Hydrocarbon & chemical leakage/spills harm physical & biological resources	1-Detailed Emergency Response Plan to cover hazardous materials/oil storage, spills & accidents	No	2	Response plan has not been sighted as yet. There have not been any hydrocarbon or chemical spills observed on all Contracts. All liquids and chemicals have been stored in secure and safe storages with appropriate bunds and safety precautions. All vehicles and plant have been maintained in good working condition with no evidence of leaks or loss of liquids into the environment.	BDA to request Contractors to provide copy of response plan.	
		2-Appropriate storage of chemicals	Yes	4			
	2-Accidents placing people at risks	3-Ensure all construction vehicles & plant are well maintained	Yes	5			
		4-Accidents reported to Police & Provincial Administration within 24 hours	Yes	5			

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Item Description	Environmental Impacts		Yes/No	Effectiveness (1 to 5)			
Presence of vehicles & equipment in villages, traffic & safety issues	1-Traffic & access disrupted during construction 2-Traffic safety affected	1-Traffic management plan prepared	Yes	2	BDA have been requested to erect prominent site signage on site to direct traffic and alert workers to requirements for safety equipment. Safety barriers must also be erected around all construction sites to keep public out and to ensure safety of workers.	Workers without appropriate safety equipment are not allowed on Site. Safety barriers and fencing already erected.	Civil Works all completed and not too much construction except for Sealing.
		2-Signage used in vicinity of works	No	3			
		3-Safe access across work sites provided for the public	No	4			
		4-Community awareness ascertain village concerns regarding traffic management matters	Yes	3			
Presence of contract workers associations with local people	1-Social disruption	1-Village/Construction Camp protocols established	Yes	3	The workers are mainly locals, only few are from Jayapura which they come and go every day.	BDA to come up with strict protocols to be developed for management of all workers accommodated on site.	Locals are being employed in all social contracts and the Sealing Contract.
		2-Contractor manages workers actions outside camp site in accordance with the protocols	No	3			
		3-Signage & security at camp & worksites	No	2			

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Item Description	Environmental Impacts		Yes/No	Effectiveness (1 to 5)			
	2-Spread of STIs & HIV/AIDS	1-Implementation of awareness & prevention program - contractors 2-Implementation of awareness & prevention program – community (villages)	Yes No	3 3	BDA needs to liaise with the Health Authority to organise HIV awareness at the village.		
Waste generated at construction camps	1-Contamination local water supplies through wastes 2-Discharges of waste waters to rivers & small streams	1-All wastes from worksites & camps to be disposed of in approved landfill/areas 2-Adequate drainage & proper handling of sewage & other liquid wastes	Yes Yes	1 3	Solid wastes from the camp site and the staff housing area are being disposed of in open landfill areas. These are not sanitary and a new site needs to be identified for this purpose so that appropriate sanitary landfill operations can be commenced. Sewage is disposed of in septic facilities at the camp sites and staff housing.	Domestic wastes from camp site require more frequent collection and disposal. Sanitary landfill site inspected by the BDA. A new site to be identified and improved waste disposal systems implemented as soon as possible.	WDC not cooperating with BDA to identify a land area for waste disposal.
Exposure of asbestos during demolition of existing buildings	Workers & villagers exposed to asbestos materials	1-BDA to prepare a Hazardous Material Assessment & Work Plan in accordance with the code of practice for the safe removal of Asbestos 2 nd Edition (Australian National Occupational Health & Safety Council 2002 (2005)	Yes	3	There has not been any asbestos material handled on site as a result of any demolition during the quarter.	Nil	

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