

Document of  
The World Bank

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Report No: 55997-PG

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CATALYTIC FUND GRANT

IN THE AMOUNT OF US\$19.2 MILLION

TO

PAPUA NEW GUINEA

FOR A

READING EDUCATION (READ PNG) PROJECT

February 24, 2011

Human Development Sector Department  
East Asia and Pacific Region

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**CURRENCY EQUIVALENTS**  
(Exchange Rate Effective December 31, 2010)

Currency Unit = PNG Kina  
1 Kina = US\$ 0.37  
1US\$ = Kina 2.7

**FISCAL YEAR**  
January 1 – December 31

**ABBREVIATIONS AND ACRONYMS**

AGO	Auditor's General Office	JICA	Japan International Cooperation Agency
AusAID	Australian Agency for International Development	M & E	Monitoring and Evaluation
BEDP	Basic Education Development Project	MDG	Millennium Development Goal
CAS	Country Assistance Strategy	NEP	National Education Plan
CDAD	Curriculum Development & Assessment Division	NEP 2	National Plan for Education for 2005-2014 <i>'Achieving a Better Future'</i>
CLMU	Classroom Library Management Unit	NLS	National Library Service
CLRG	Classroom Library Reference Group	NPDT	National Professional Development Team
CRIP	Curriculum Reform Implementation Project	NZAID	New Zealand Agency for International Development
DoE	Department of Education	OSLW	Organization of School Library Workshops
EFA	Education for All	PAD	Project Appraisal Document
EGRA	Early Grade Reading Assessment	PEO	Provincial Education Office
EPDF	Education Program Development Fund	PNG	Papua New Guinea
EQP	Education Quality Program	PNGEI	Papua New Guinea Education Institute
ETHRDTP	Education Training and Human Resource Development Training Program	PPDT	Provincial Professional Development Team
EU	European Commission	READ PNG	Reading Education Project for Papua New Guinea
FMS	Financial Management Specialist	SLIP	School Learning Improvement Plans
FTI	Fast Track Initiative	UBE	Universal Basic Education Plan (2009- 2018)
GoPNG	Government of Papua New Guinea	UNICEF	United Nations Children's Fund
		US	United States
		WB	World Bank

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**PAPUA NEW GUINEA  
READING EDUCATION (READ PNG) PROJECT**

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PAPUA NEW GUINEA

READ PNG

PROJECT APPRAISAL DOCUMENT

EAST ASIA AND PACIFIC

EASHE

Date: February 24, 2011	Team Leader: James A. Stevens
Country Director: Ferid Belhaj	Sectors: Primary education (100%)
Sector Manager/Director: Eduardo Velez Bustillo	Themes: Education for all (100%)
Project ID: P105897	Environmental category: Not Required
Lending Instrument: FTI Catalytic Fund Grant	Joint IFC:
	Joint Level:

**Project Financing Data**

Loan  Credit  Grant  Guarantee  Other:

For Grants:

Total Operation Cost (US\$m.): 19.20

**Financing Plan (US\$m)**

Source	Local	Foreign	Total
Borrower	0.00	0.00	0.00
Pacific Sub-region Free-standing Trust Fund Program	19.20	0.00	19.20
Total:	19.20	0.00	19.20

**Amount of financing to be provided by**

Source	Amount (US\$m)
Trust Fund Program	19.20
SPF	0.00
Borrower/Recipient	0.00
External Funds, not Bank Managed	0.00
Financing Gap	0.00
Total Project Cost	19.20

**Borrower:**

**Responsible Agency:**

National Department of Education  
 PO Box 446  
 Port Moresby, Papua New Guinea  
 Tel: (675) 341-4889 Fax: (675) 323-1031

<b>Estimated disbursements (Bank FY/US\$m)</b>									
FY	12	13	14	15					
Annual	2.00	4.00	7.00	6.20					
Cumulative	2.00	6.00	13.00	19.20					
Project implementation period: Start March 31, 2011 End: June 30, 2014 Expected effectiveness date: June 30, 2011 Expected closing date: June 30, 2014									
Does the project depart from the CAS in content or other significant respects? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Ref. PAD I.C.</b>									
Does the project require any exceptions from Bank policies? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Ref. PAD IV.G.</b>									
Have these been approved by Bank management? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									
Is approval for any policy exception sought from the Board? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Does the project include any critical risks rated “substantial” or “high”? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>Ref. PAD III.D.</b>									
Does the project meet the Regional criteria for readiness for implementation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>Ref. PAD IV.G.</b>									
Project development objective <b>Ref. PAD II.C., Technical Annex 3</b>  The principal development objective of the proposed READ PNG project is to improve the reading skills of elementary and primary education students. Progress toward achievement of this objective will be monitored against baselines for reading results which would be established in selected provinces during 2011 and during the three year program period (2011-2013).  A secondary objective of the proposed funding will be to build the policy, monitoring and evaluation capacity of the Curriculum Development & Assessment Division (CDAD) to select, procure and distribute books and reading support materials and to undertake assessment of early grade reading together with provincial officials.									
Project description [ <i>one-sentence summary of each activity</i> ] <b>Ref. PAD II.D., Technical Annex 4</b>  The project will support: (1) increasing the availability of books and learning materials by establishing classroom libraries in elementary and primary schools, (2) promoting reading through professional development, professional teacher networks and public reading campaigns, (3) strengthening early grade reading assessment, and (4) project management and monitoring.									
Which safeguard policies are triggered, if any? <b>Ref. PAD IV.F., Technical Annex 10</b>  The indigenous peoples safeguard will be triggered, but a separate IPP is not required. The incorporation of the IPP into the PAD is most appropriate for this project's design due to the fact that all project beneficiaries are considered indigenous peoples. The principal issue with regard to indigenous people is how decisions will be made regarding the language of education materials. All elementary and primary schools in the country will be covered by the project, and it is assumed that parents who send their children to school intend for them to learn to read. Increasing access to school is not a direct objective of the project. Many language groups will not be able to take advantage of project inputs because they cannot be made available as a practical matter in all of PNG's 800 or so indigenous languages. A focus will be given to									

provision non-book reading support materials in elementary schools where the language of instruction is the local vernacular.

Significant, non-standard conditions, **if any**, for:

***Ref. PAD III.F.***

Board presentation:

N/A

Loan/credit/grant effectiveness:

Prior to grant effectiveness, the recipient will select the Financial Management Specialist and the Project Accountant.

Covenants applicable to project implementation:

The following covenants will be provided in the financing agreement:

- (a) The Recipient shall maintain until completion of the project within its Department of Education (DOE), a Classroom Library Reference Group chaired by the Secretary of Education, and including representatives from the National Library Service, and other key stakeholders, to meet quarterly to provide overall policy guidance and implementation oversight for the Project.
- (b) The Recipient, through DOE, shall establish within its Curriculum Development and Assessment Division and maintain until the completion of the Project a Classroom Library Management Unit (CLMU), consisting of qualified staff in sufficient numbers and under terms of reference satisfactory to the World Bank, and provided at all times with adequate funds and other resources, which shall be responsible for the overall coordination, procurement, implementation, financial management, and monitoring and evaluation of the Project activities.
- (c) The CLMU shall be headed by a national project coordinator under terms of reference satisfactory to the World Bank, who will report to the Assistant Secretary of the Curriculum Development and Assessment Division (CDAD).
- (d) The Recipient, through DOE, shall engage and maintain until completion of the Project an accountant (Accountant) and a procurement advisor the (Procurement Advisor), each with sufficient experience and qualifications and under terms of reference satisfactory to the World Bank, who will report to the Assistant Secretary of DoE's Division of Corporate Services, as well as to the CLMU.
- (e) The Recipient shall engage within six months of effectiveness of this Agreement a short term internal audit advisor to assist DOE's Internal Unit with developing an internal audit plan and conducting an internal audit.
- (f) The Recipient shall install, use and maintain for the Project an accounting software package acceptable to the World Bank (Software Package).
- (g) The Recipient shall use the services of its suppliers and the central and decentralized structures of DOE for the implementation of the activities to be carried out under the Project.

## I. STRATEGIC CONTEXT AND RATIONALE

### A. Sector issues and strategic context

1. **Introduction:** This Project Appraisal Document (PAD) provides a rationale and a project description for an investment of \$19.2 million (Kina 51.9 million) in Papua New Guinea's (PNG's) education sector, which is proposed for funding by the FTI Catalytic Fund. The investment represents a small share of a larger development program that aims to achieve universal basic education in PNG. All project activities described below have been identified as priorities in PNG's Universal Basic Education (UBE) Plan (2010-2019). The UBE Plan was endorsed by PNG's education donor partners for purposes of the Education for All - Fast Track Initiative (EFA-FTI) partnership in May 2010.

2. The principal objective of the Reading Education (READ PNG) project is to improve reading skills among students in PNG's elementary and primary schools.<sup>1</sup> The largest share of funding will be provided for classroom libraries and other educational materials (about \$14.3 million or K38.6 million), as well as for related teacher training (about \$1.7 million or K4.6 million). Classroom libraries are made up of books supplementary to the textbooks that are targeted at the specific grade of the learner and available to look at and borrow from shelves in the classroom giving constant exposure of the child to literacy materials that form the best possible reading habits. Classroom libraries are administered by the classroom teacher who makes their use part of the everyday activities of the children. Improvements in reading skills will also be rigorously assessed as part of the project. Baseline assessments of reading skills in elementary schools and the early grades of primary will be undertaken in the National Capital District in early 2011. READ PNG will support establishment of baselines in other provinces, as well as bi-annual reassessments in those provinces where baselines have been established.

3. The Catalytic Fund grant would be expected to disburse over three years, beginning in 2011. The roughly \$6.4 million (K17.3 million) per year investment would form a part of PNG's overall annual development (investment) budget for education which, in 2010, included about \$75 million (K200 million) from donors and \$18.6 million (K50 million) from the government's own resources. The 2010 recurrent budget for education in PNG from federal resources was about \$334 million (K894 million), approximately 70 percent of which is delegated to provinces for teacher salaries and education function grants.

4. **Strategic Context:** Following more than a year of report writing, internal review, and discussions with stakeholders and donor partners, the National Department of Education (DoE) finalized its UBE Plan in December 2009. Although the 10-year UBE is not a comprehensive sector plan, it represents a significant step in terms of strategic orientation in comparison with the GoPNG's National Education Plan (NEP), which was produced in 2005. Progress has been made in three main areas: (1) the plan identifies performance indicators against which progress will be measured (although some baselines remain to be established); (2) it provides a general analysis of spending in the education sector and projections for future

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<sup>1</sup> Elementary schools in PNG offer a three-year program consisting of a preparatory year and grades 1 and 2. The local vernacular is the language of instruction in elementary schools. Primary schools in PNG offer a six-year program consisting of grades 3-8. The language of instruction in primary schools is English.



funding needs; and (3) it outlines implementation constraints and broadly describes approaches to executing the government's programs and building institutions in the education sector.

5. The UBE Plan provides details on the current status of access and retention, and to a lesser extent, on quality. PNG will not achieve the MDG of universal primary completion by 2015. DoE calculates a national net enrollment rate for grades 1-6 of only about 45 percent and a gross enrollment rate of about 78 percent, although there is significant regional variation. The plan analyzes the reasons for low enrollments and low retention, which includes a list of constraints familiar to many FTI partner countries: user fees, poor academic performance, distance of school facilities from populations, lack of classroom space, other schooling costs, and a failure on the part of parents to value education. The failure to value education is associated with both low quality and perceived lack of employment opportunities.

6. In order to improve access, DoE is rightly focused on programs that promote on-time enrollment of children at the prescribed age of school entry – age six. Currently, only around 12 percent of children age six or younger enroll in elementary education. The government is aiming at a significant increase on this performance indicator over the next three years. Retaining children who start school is also a priority performance indicator. Of the already small share of children who began in first grade in school year 2002/2003 only 62 percent completed six years of education.

7. DoE is also keenly aware that getting children into school and keeping them in school will achieve little unless an equal priority is given to improving teaching and learning. But basic information on learning outcomes is currently perhaps the weakest part of the UBE plan. Existing grade 8 exams show disappointing results for literacy, numeracy, general skills and written expression, and these reflect the performance of only that relatively small share of youth who began school and have continued to grade 8. Some important steps, however, have recently been taken to promote quality. A modern outcomes-based curriculum was introduced in 2005 and related teacher training is being slowly rolled out. A complementary series of curriculum standards assessments for grades 2, 5 and 7 have also been developed and are set to be introduced at the beginning of the UBE plan period.

8. The UBE plan also contains a series of centrally-funded programs, to be supported by government and donors, aimed at improving teacher skills and expanding access to textbooks, libraries and other learning materials. In addition, a school subsidies program is expected to increase resources and support activities that are included in the School Learning Improvement Plans which are controlled directly by schools. This program is aimed at promoting school-level planning, getting communities more involved in schools, and allocating increased resources to schools so they can pursue their own priorities and promote community involvement.

9. While the UBE Plan represents progress, more work will be required in the coming years to refine its analysis and integrate it with a new comprehensive sector plan. An appraisal, which was conducted jointly by PNG's donor partners for purposes of PNG's FTI endorsement, identifies a number of challenges. In particular, more work will be required to develop: (1) a more detailed cost and financing framework for sector reform; (2) a detailed implementation plan which takes into account institutional capacity constraints; and (3) replicable baseline data

against which all sector performance indicators can be monitored. In the FTI endorsement, the local donor's group expressed its commitment to supporting DoE to improve in these areas. Despite these weaknesses, the appraisal concludes that the UBE plan provides a foundation for continuous improvement in the education sector and for expanded investment on the part of government and PNG's donor partners.

10. UBE implementation is already off to a good start. The year 2010 began with the Government of Papua New Guinea (GoPNG) implementing the centerpiece of the UBE program: abolishing fees for elementary schools. An equally important signal of the wider government support for UBE was the fact that funding for subsidies to replace parental fees in elementary education was increased significantly to about K143 million and made available, for the first time, for distribution to schools at the beginning of the school year in February. Funding for education in the 2010 budget increased by 6 percent overall from 2009, and basic education was the beneficiary of nearly all of this increase. DoE and its development partners are committed to making sure that this good start to UBE implementation continues in the coming years (see discussion of donor program below).

11. The government's UBE plan calls for a ramping up of both recurrent and investment spending for education in PNG from \$358 million (K894 million) to about \$880 million (K2.2 billion) per year by 2018. Whether or not the DoE can effectively implement such an increase remains to be proven. But it is clear that PNG will not achieve its access, retention and quality enhancement goals if dramatically increased funding is not made available. If PNG achieves its desired enrollment increases and succeeds in ramping up funding in line with its plan, it will be spending about \$485 (K1,300) per student per year in 2018. To put this amount in context, public education spending in western countries commonly exceeds \$10,000 per student per year now. If PNG has any chance to close its education gap globally, it cannot afford not to attempt to ramp up its education spending in line with its plan.

## **B. Rationale for Fast Track Initiative Catalytic Fund involvement**

12. The development partners group in PNG (AusAID, EC, JICA, NZAID, UNICEF and WB) supported development of the UBE Plan and is committed to supporting the plan's implementation. The development partners formally endorsed the UBE Plan on May 12, 2010. The World Bank has been selected by consensus of the development partners as the Supervising Entity (SE) for preparing and supervising implementation of an investment by the FTI Catalytic Fund. This selection was confirmed in a letter from the FTI Coordinating Agency, UNICEF, to the World Bank on March 5, 2010.

13. In discussions with DoE leadership and the development partners, a gap in donor funding was identified in support for the quality of education, specifically in the area of improved reading skills in the early grades. It was agreed that a proposal would be made for Catalytic Fund financing to support this UBE priority (see UBE Plan section 4.3, sub-sections 4.3.3 and 4.3.4). The proposed investment is described in the following section.

14. The development partners are in the process of refining ongoing support to complement the UBE strategy or defining new investments to support UBE implementation

during the three year period beginning in 2011. The following table provides indicative funding levels for each of the six major donors to education in PNG.

15. The donors currently forecast an increase in support for education of over 20 percent from 2011 to 2012 and about 12 percent from 2012 to 2013, with support from AusAID accounting for most of the increase. Funding from the FTI Catalytic Fund is expected to be approximately 8 percent of total donor support in 2011, and decline to about 5 percent by 2013 as funding from other donors increases. FTI Catalytic fund financing would, however, represent about a third of donor support for teacher professional development in 2011 and nearly half of funding for educational materials. No donor provides significant direct support to the higher education system in PNG, with the exception of bi-lateral overseas fellowship programs.

## **II. PROJECT DESCRIPTION**

### **A. Lending instrument**

16. An investment grant in the amount of \$19.2 million was approved by the Catalytic Fund Committee of the Fast Track Initiative on November 10, 2010.

### **B. Project development objective and key indicators**

17. The principal development objective of the proposed READ PNG project is to improve the reading skills of elementary and primary education students. Progress toward achievement of this objective will be monitored against baselines for reading results which would be established in selected provinces during 2011 and during the three year program period (2011-2013).

18. A secondary objective of the proposed funding will be to build the policy, monitoring and evaluation capacity of the Curriculum Development & Assessment Division (CDAD) to select, procure and distribute books and reading support materials and to undertake assessment of early grade reading together with provincial officials.

19. Intermediate output objectives have also been established, including measures of the availability of books and the completion of reading assessment baselines.

## Indicative Education Donor Funding 2011 – 2013

Kina '000s

Education Component	2011							2012							2013							
	Aus	WB / FTI	Japan	NZ	EU	UNICEF	Total	Australia	WB / FTI	Japan	NZ	EU	UNICEF	Total	Australia	WB / FTI	Japan	NZ	EU	UNICEF	Total	
Teacher Education	7,700	2,520	1,373		3,538	168	15,299	9,548	2,520	1,584		5,076	168	18,896	11,396	2,520	1,584		3,347			18,846
Educational Materials	25,300	10,920	845			1,579	38,644	31,372	10,920	1,056		0	1,579	44,927	37,444	10,920	1,056		0			49,420
Infrastructure	31,625	0	1,126		4,522		37,274	39,215		1,232		9,045		49,492	46,805		1,232		4,522			52,559
Standards	11,000	1,680	3,660			974	17,315	13,640	1,680	3,872		0	974	20,166	16,280	1,680	3,872		0			21,832
Education Grants	27,500	0					27,500	34,100				0		34,100	40,700				0			40,700
Management / Admin.	13,750	840	1,267		3,853	638	20,349	17,050	840	1,584		7,652	638	27,764	20,350	840	1,584		4,541			27,314
Personal Emoluments (TA)	20,625	840					21,465	25,575	840			0		26,415	30,525	840			0			31,365
<b>Total</b>	<b>137,500</b>	<b>16,800</b>	<b>8,271</b>	<b>3,281</b>	<b>11,914</b>	<b>3,360</b>	<b>181,126</b>	<b>170,500</b>	<b>16,800</b>	<b>9,327</b>	<b>6,562</b>	<b>21,773</b>	<b>3,360</b>	<b>228,322</b>	<b>203,500</b>	<b>16,800</b>	<b>9,327</b>	<b>9,843</b>	<b>12,410</b>	<b>0</b>	<b>0</b>	<b>251,880</b>
<b>Education Levels</b>																						
Elementary	41,250	4,667	53			336	46,306	51,150	4,667	53			336	56,206	61,050	4,667	53					65,770
Primary	55,000	9,332	5,297		3,853	2,520	76,003	68,200	9,332	6,353		7,044	2,520	93,450	81,400	9,332	6,353		4,016			101,101
Secondary/High Sch/FODE	20,625	2,800	2,816				26,241	25,575	2,800	2,816				31,191	30,525	2,800	2,816					36,141
Vocational / CC															0							
Technical (post Gr 12)			106				106			106				106	0		106					106
Teacher Colleges	6,875				4,569		11,444	8,525				8,347		16,872	10,175				4,758			14,933
Other	13,750				3,491	504	17,745	17,050				6,382	504	23,936	20,350				3,636			23,986
<b>Total</b>	<b>137,500</b>	<b>16,800</b>	<b>8,271</b>	<b>3,281</b>	<b>11,914</b>	<b>3,360</b>	<b>181,126</b>	<b>170,500</b>	<b>16,800</b>	<b>9,327</b>	<b>6,562</b>	<b>21,773</b>	<b>3,360</b>	<b>228,322</b>	<b>203,500</b>	<b>16,799</b>	<b>9,327</b>	<b>9,843</b>	<b>12,410</b>	<b>0</b>	<b>0</b>	<b>251,880</b>

Note: Funding from NZAID had not yet been allocated to specific components and levels.  
 WB/FTI includes about K14 million per year for READ PNG and about K2.8m per year from IDA for an investment in Flexible and Open Distance Education at the secondary level.

### C. Project description

20. **Support for Improved Reading in Elementary and Primary Schools.** Improving reading acquisition and reading skills among elementary and primary students will be supported in two ways: (1) increasing the availability of books, other reading materials and simple furniture in elementary and primary school classrooms throughout the country; and (2) providing professional development to teachers for reading instruction and developing a school-based public reading campaign. A summary of the approach and the activities that will be financed is provided in the following two sections. The procurement of books and materials under the project accounts for about 75 percent of project funding (\$14.3 million or about K38.6 million). A detailed description of the classroom libraries activities is included in Annex 4.

#### *Part 1: Increasing the Availability of Books and Learning Materials by Establishing Classroom Libraries in Elementary and Primary Schools*

21. The proposed project will support the central selection and procurement of illustrated children's early grade reading materials, including supplementary reading books and simple bookshelves that together will form classroom libraries. The goal is to quickly increase the supply of literacy materials in schools and to provide child-friendly circumstances in which children can develop their reading skills as part of the daily curriculum. The selection of materials will be done with consideration to both cost and quality; and priority will be given to books that address themes of the environment, health and social inclusion. The selection process will focus on three different sources of early grade reading materials: (1) locally produced and published books (both in print and out of print); (2) internationally published books and literacy materials to be re-published in selected vernacular translations by local publishers; and (3) new early grade reading-support (non-book) materials proposed by local teachers and publishers. Some teacher guides will also be selected for distribution to classroom teachers along with training materials designed to help teachers to encourage reading habits. Simple bookshelves and classroom furniture will also be procured provincially from province or district level suppliers.

22. An evaluation panel will be established to evaluate and select materials.<sup>2</sup> The panel will be supported by a local firm or NGO, to be contracted by the project, and an international publishing expert. Approximately 60 titles together with literacy games, cards, and interactive materials will be selected for the elementary grades Prep, 1 and 2. These will form a literacy package of both vernacular and non-specific language materials for use in classrooms of all three elementary grades. Approximately 40 titles will be selected for each of the primary grades 3-6.

23. In order to promote sustainability, the National Library Service (NLS) will produce and distribute a catalogue of books and materials which have been made available to schools under the classroom libraries initiative. Schools will be encouraged to devote school subsidy funds to replenishing stocks through orders to the NLS. The NLS will also expand and target its

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<sup>2</sup> Panel members will be appointed by CDAD based on their technical experience and knowledge regarding early grade reading, teaching, and learning.

ongoing, but small kina for kina program which provides matching funds to schools for the purchase of books.<sup>3</sup>

*Part 2: Promoting Reading Through Professional Development, Professional Teacher Networks and Public Reading Campaigns*

24. Professional development will be provided to teachers on how to use classroom libraries to encourage children to read and to improve their reading habits and ability and how to create localized reading materials. The concept of classroom libraries is a keystone of the project. Resources will be provided to strengthen and expand existing school clusters to promote effective teaching practices in literacy development. Networks of teachers of the nine elementary and primary education grades (P +1 to 6) will be supported to promote teaching strategies in the use of learning materials and improved reading instruction; improved reading fluency and comprehension, improved student writing and critical thinking. The strengthening of professional communities will center on child-friendly practices of reading books and student writing and projects that can be inspired by the learning materials.

25. A small reading unit based in CDAD will work through the Papua New Guinea Education Institute (PNGEI) as the professional development provider to implement the professional development program. The training will concentrate primarily on developing reading skills in the classroom with a secondary purpose of teaching simple librarianship to enable teachers to track their pupils reading habits. Technical assistance will provide support for teaching literacy. In addition, the CDAD will provide funding for an information campaign that will publicize the investment being made so elementary and primary schools as well as parents are fully aware of what they should be receiving under the project. The campaign will also promote family participation in schools related to reading activities.

*Part 3: Strengthening Early Grade Reading Assessment*

26. The objectives of the EGRA initiative in PNG will be to: (1) produce a baseline of early grade reading performance by province during the project period (2011-2013); (2) to build local capacity to replicate early grade reading assessment at the central and provincial levels and to monitor and report on progress against the established baseline; (3) to analyze the implications of EGRA findings for instructional and curriculum improvements, policy directions and future investment opportunities; and (4) to use EGRA findings as an input into a reading information campaign aimed at mobilizing parental support for reading.

27. READ PNG will finance survey logistics costs (transport, per diems and accommodation) for the teams conducting school visits to map out vernacular usage, as well as the administration of EGRA instruments in provinces during the three year duration of the project. The total average cost of EGRA field work per province is estimated at about \$50,000 (K135,000). The project will also cover logistical costs at the central level (training, printing and travel) and consulting fees for national consultants who will be responsible for training, data

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<sup>3</sup> The kina for kina scheme was introduced under the last World Bank project and involves central government matching – kina for kina – payments for books made by participating schools. (Education Development Project CPL-35370 1991-2001).

processing, report writing, dissemination and a reading information campaign. The total cost of administration and provincial field work for EGRA is expected to be about \$2.6 million (K7.0 million).

#### *Part 4: Project Management and Monitoring*

28. Management and coordination of the day-to-day implementation of the project, including financial management, accounting, procurement, monitoring supervision activities and reporting will be funded by the project and supported by technical assistance.

#### **D. Lessons learned and reflected in the project design**

29. The World Bank has had previous positive experience with supporting library development in PNG under its Education Development Project (CPL-35370 1991-2001). About \$3.4 million was provided during the project period to support libraries in community schools, provincial high schools, vocational schools and College of Distance Education centers. The objective of the funding was to increase literacy development and encourage reading through the procurement and supply of library books to schools. The project also built capacity by providing basic training to teachers in the organization and management of school libraries and in library information, research skills instruction through workshops, in-services and school visits; and by recruiting two library advisors and one support librarian.

30. An Implementation Completion Report completed in June 2002 found that the library development component of the project was highly successful. It succeeded in providing considerable improvement in access to books to support curriculum at all levels. But project performance was assessed only by the project's goal of delivering education inputs to schools, and not by any measure of improved teaching or learning. The proposed project will build on the success in delivering inputs of the earlier project, as well as introduce two new elements: (1) the introduction of the concept of classroom libraries, as opposed to single-room designated school libraries, which is aimed at promoting daily contact with books and reading materials; and (2) the introduction of reading assessments which will provide a baseline for monitoring improvement in reading performance among students in the early grades.

31. In 2010-11, AusAID (by BEDP, a soon-to-completed AusAID-funded project) and the EU Education, Training and Human Resources Development Project (ETHRDP) are in the process of supplying textbooks only in the English language to 3,530 primary schools in PNG. These are books tied to the curriculum and subject orientated as opposed to the supplementary reading materials which will be provided under READ PNG. While their selection processes have therefore been different and they have not had the challenges of producing materials in the vernacular or supplying 6,094 elementary schools, there are lessons to be learnt from the ordering, consolidation and distribution of books to schools<sup>4</sup>.

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<sup>4</sup> See Lessons Learnt Document – 39644/35 and 13963/67 Procurement and Distribution of Primary School Text Books Prepared for: AusAID by HK Logistics Pty Ltd, July 2010 and the PowerPoint Presentation TEXTBOOK DISTRIBUTION which was presented to SEOC by the EU in late July 2010. This gives a useful comparison between the AusAID and EU textbook distribution processes.

32. At the time of writing, NZAID have a monitoring and evaluation report on the School Journals Programme in preparation, and the EU has a draft of a report on its book supply project. In addition, AusAID is organizing an independent completion review of all main areas of AusAID support to education, including a focus on the textbook support. These documents when completed will be studied by the READ PNG project in order to incorporate valuable lessons learned.

33. In addition to direct experience in PNG, project design has been guided by the Bank's recent experience in other countries, including the Mongolia Rural Education and Development (READ) Project, the Moldova Basic Education Project, the Brazil Basic Education Quality Improvement Project, Brazil Northeast Basic Education Project, and the Bolivia Education Reform Project. Lessons from the Bank's experience in other countries include the following:

- Classroom teachers must be trained in how to use books to teach reading and writing; how to integrate classroom libraries into their daily classroom routines, and how to encourage student's use of classroom libraries.
- Classroom reading materials should be supplied when the classroom teachers are trained to increase impact and strengthen ownership.
- The use of classroom libraries as catalysts for generating localized literacy materials that enhance early reading abilities.
- Familiarizing ministries, teachers, school managers and parents with children's literature and its benefits to classroom learning is a critical condition in ensuring local support and the usefulness of the resources to the classrooms.

34. Finally, project design was informed by lessons gained by giving priority to classroom libraries for the early grades as opposed to investing in traditional reference libraries for all schools. These lessons include:

- The diversity of PNG languages calls for a particular classroom based response. Currently, there are virtually no learning materials in elementary classes. Reading for children of this age is a classroom activity, and the books should therefore be on shelves in the classroom.
- Evidence shows that there is a didactic advantage to having books readily available to students and teachers in their classroom; and that a strong positive correlation exists between the proximity of books and their frequency of use by students.
- Experience in Mongolia has shown that integrating teacher training simultaneous with the supply of reading materials in class rather than in separate libraries has far greater impact on increasing literacy.
- A classroom library approach increases the teachers' ownership of reading programs and the accompanying materials. By training the teachers not only in the use of reading materials but also in the creation of their own materials, the project will address one of the most important shortfalls in a diverse language environment and ensure that elementary schools have reading materials.



- Constructing library facilities will be costly, time consuming – increasing the time that schools will be without books. Classroom libraries address the immediate problem of getting materials into elementary and primary schools.

### III. IMPLEMENTATION

#### A. Institutional and implementation arrangements

35. All donor-funded activities, including this investment, will be included as part of DoE's budget requests for 2011-2013. Education donors in PNG are expected to begin preparation of a Joint Financing Arrangement in 2011, which would guide implementation of all donor funding that is managed by DoE. Several donors, including the World Bank through administration of the FTI grant, are expected to allow implementation of some portion of their funding through the Joint Financing Arrangement. But the majority of donor funding is likely to continue to be implemented through traditional processes through 2013.

36. Procurement and financial management for the proposed project will be managed by CDAD and overseen by DoE's Corporate Services division. Corporate Services will manage a bank account which will receive bi-annual disbursements of funding, the size of which will depend on annual spending projections. Activities in the provinces, including teacher training and EGRA surveys, are expected to be funded using an imprest account mechanism that has been used effectively to date to implement AusAID funding.

37. The National Policy for the Procurement, Distribution and Storage of Curriculum Materials states that the National Department of Education, through its Curriculum Development and Assessment Division (CDAD), is responsible for the procurement of curriculum materials for schools. CDAD will therefore take primary responsibility for operational management of project activities in particular coordinating funding. Procurement and financial management under the project will be, however, overseen and guided by DoE's Corporate Services section.

38. A Project Steering Committee (PSC) has been established by the DoE to oversee implementation of the IDA-funded Flexible and Open Distance Education Project. This PSC will now be expanded to include oversight of READ PNG. The PSC is described in Annex 6.

39. A Classroom Library Reference Group (CLRG) has been established to oversee preparation and implementation of READ PNG under terms of reference agreed with DoE. Under the guidance of the CLRG, CDAD will form a Classroom Library Management Unit (CLMU), which will be headed by a Project Coordinator appointed by the Chair of the CLRG. The CLMU will be responsible for preparing annual work programs for project activities, as part of its overall annual budgeting process. The CLMU will also be responsible for progress reporting and for reporting on monitoring and evaluation activities. Teacher training activities to be undertaken by provinces under the project will be facilitated by the PNGEI. The project will support a consultant with experience in publishing and book procurement and a training consultant to support the PNGEI. The CLMU will have a small budget to finance short term technical consultants, as needed.

## **B. Monitoring and evaluation of outcomes/results**

40. The early grade reading assessments described above will provide the principal evaluation tool for determining the impact of the project. Performance on reading assessments will be reported by grade and gender. A gradual geographic roll out of the books and materials distribution and the teacher training may offer an opportunity to produce EGRA findings in areas which have and have not yet benefitted from the project. But delivery of books and training will not be specifically withheld from any area in order to maintain a control group. A Results Framework is attached in Annex 3.

41. In addition to EGRA, the CLMU will systematically monitor the completion of output objectives for the project's various activities. Output indicators are expected to include the following:

- Number of students and classrooms by province who received classroom libraries;
- Number of teachers, librarians and principals by province who participated in professional development; and
- Number of provincial EGRA assessment reports completed and number of schools/students participating in the EGRA surveys.

42. The project will include a delivery confirmation mechanism so that beneficiary classrooms directly confirm to the provincial education administration that they have received the books and other material supported by the project.

## **C. Sustainability**

43. The project is expected to increase the supply of books on the market in PNG; and to thereby stimulate a market for books going forward. The expansion of the school subsidy mechanism in PNG – under which all schools receive grant funding on a capitation basis -- makes it likely that schools will have funding to replenish their stock of reading materials following project completion. The 'kina for kina' system initiated under the previous World Bank-funded book program may be revitalized under a second phase of READ PNG and should lead to greater sustainability. Continued donor funding for reading materials is also likely to be available during the UBE period. The teacher training module delivered under the project will address the topics of stock and inventory systems annually so that replacement can be planned.

## D. Critical risks and possible controversial aspects

Risk Factor	Risk Level	Analysis and Mitigation Measures
Institutional	H	Institutional arrangements for implementation, both within DoE and between DoE and provincial and school authorities, represent the greatest risk to successful performance under the project. To mitigate this risk, the project is being prepared in a participatory manner, using a steering group made up of various central level stakeholders. Project activities are expected to roll out to provinces on the basis of demonstrated demand by provincial education officers and provincial authorities. It is possible that various implementation approaches will be allowed for distribution of books and materials and the roll out of training, depending on provincial preference. The project will be designed with a view toward flexible implementation arrangements, as long as provinces are committed to reporting on resources use and reading results.
Fiduciary	S	DoE has no direct experience with WB procurement or financial management. But PNG's education donors have given priority over the past year to assessing DoE's capacity in these areas and designing strategies and interventions aimed at improving this capacity. The improvement of DoE capacity for book and materials procurement and for management of imprest account funding is a secondary objective of this project.
Technical	M	The technical aspects of selecting and distributing books, training teachers and assessing reading skills do not represent a high risk. There are experts in PNG who can undertake these tasks effectively. The primary risk of failure would not be lack of technical capacity, but institutional constraints. Both national and international consultants will be used to promote technical rigor as part of the project design.
Sustainability	S	It is possible that schools won't be able to renew their stock of reading materials. The use of school subsidies – or direct grants to schools – in PNG make it more likely; however, the schools will have funding for direct purchase of reading materials. It is an objective of the project to stimulate a market for reading materials in PNG. Continued donor funding for reading materials is also likely to be available during the UBE period.
Safeguards	M	It is possible that some indigenous people will not be able to take advantage of project inputs because they will not be available in all of PNG's 800 or so indigenous languages. It is not practical for the project to provide reading materials in all languages. But material support to elementary schools – where the language of instruction is the indigenous language – will be primarily in the form of non-text based education materials that are appropriate to any language. Teachers will also be given instruction in how to adapt materials for use in instruction of the indigenous language.
Overall	S	Because of institutional difficulties in PNG, the overall risk rating is high. FTI funding for supervision will allow Bank staff to follow up closely during the first year of implementation to make sure that the project gets off to a good start.

H = High, S = Substantial, M = Moderate, L = Low

## E. Loan/credit conditions and covenants

44. Prior to grant effectiveness, the Recipient will select the Financial Management Specialist and the Project Accountant.

45. The following covenants will be provided in the financing agreement:
- (a) The Recipient shall maintain until completion of the project within its Department of Education (DOE), a Classroom Library Reference Group chaired by the Secretary of Education, and including representatives from the National Library Service, and other key stakeholders, to meet quarterly to provide overall policy guidance and implementation oversight for the Project.
  - (b) The Recipient, through DOE, shall establish within its Curriculum Development and Assessment Division and maintain until the completion of the Project a Classroom Library Management Unit (CLMU), consisting of qualified staff in sufficient numbers and under terms of reference satisfactory to the World Bank, and provided at all times with adequate funds and other resources, which shall be responsible for the overall coordination, procurement, implementation, financial management, and monitoring and evaluation of the Project activities.
  - (c) The CLMU shall be headed by a national project coordinator under terms of reference satisfactory to the World Bank, who will report to the Assistant Secretary of the Curriculum Development and Assessment Division (CDAD).
  - (d) The Recipient, through DOE, shall engage and maintain until completion of the Project an accountant (Accountant) and a procurement advisor the (Procurement Advisor), each with sufficient experience and qualifications and under terms of reference satisfactory to the World Bank, who will report to the Assistant Secretary of DoE's Division of Corporate Services, as well as to the CLMU.
  - (e) The Recipient shall engage within six months of effectiveness of this Agreement a short term internal audit advisor to assist DOE's Internal Unit with developing an internal audit plan and conducting an internal audit.
  - (f) The Recipient shall install, use and maintain for the Project an accounting software package acceptable to the World Bank (Software Package).
  - (g) The Recipient shall use the services of its suppliers and the central and decentralized structures of DOE for the implementation of the activities to be carried out under the Project.

#### **IV. APPRAISAL SUMMARY**

##### **A. Economic and financial analyses**

46. An analysis of the potential economic and financial impact of this project is provided in Annex 9. Evidence from similar interventions in other countries suggests that this investment will have a positive effect on reading skills and is the most cost effective among feasible alternatives. This investment is also expected to improve attainment rates and the marginal product of schooling. While an internal rate of return for the project cannot be accurately estimated due to a lack of data, the relationship between the internal rate of return and this

project's impact on progression rates is shown to be concave so that even a small (less than 1 percent) impact on progression rates will produce a moderate internal rate of return under typical earnings scenarios. This is also true for the impact of this project on the marginal product of schooling.

47. The economic analysis in Annex 9 also identifies two sources of potential inequities resulting from this project. First, since the project only targets children enrolled in school, differences in enrollment rates by sub-populations including urban and rural groups and socio-economic status imply that this project will benefit urban groups more than rural groups and likely the wealthier more than the poorer. Second, ethno-linguistic inequity is possible if early grade reading material is unable to be adapted into any particular group's language since any such group would be unable to benefit from the project. If early grade reading material is independent of language or can be adapted into any language (as is currently planned and as was done in Timor-Leste) then this potential source of inequity can be avoided. However, in both cases of potential inequity, no specific sub-population is expected to be affected adversely, but rather benefit some more than others.

48. Finally, while this project will not directly create substantial recurrent costs to the government, if the project decreases early grade repetition rates, then the increase in enrolment will be a source of future recurrent costs. However, these extra costs are likely to be sustainable since the government is already planning a large increase in education spending as cited in its UBE plan.

## **B. Technical**

49. **Justification for Classroom Libraries.** The development of the READ PNG project provoked a discussion in PNG about the merits of 'classroom libraries' or 'reading corners' over those of designated library rooms in schools. The answer in the long term is that there is room for both, because they serve different functions and are appropriate for different age groups. But there is a strong case to be made that classroom libraries should be a higher priority in the context of PNG.

50. The goal of any library initiative is to attract children to reading, stimulate their curiosity and make it easy for them to find written materials. Evidence suggests, however, that designated libraries are a poor means of nurturing voluntary reading habits in younger children. Classroom libraries have been shown globally to have a positive impact on helping children acquire reading skills. For example, children in classrooms containing literature collections have been shown to read 50 percent more books than children in classrooms without such collections.<sup>5</sup> In classrooms that contain well-designed library centers, children interact more with books, demonstrate more positive attitudes toward reading, choose reading as a leisure time activity, spend more time reading, and exhibit higher levels of reading achievement.<sup>6</sup> Ethnographic research on the family literacy experiences of children from various social and cultural

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<sup>5</sup> National Assessment of Educational Progress. Princeton, NJ: Educational Testing Service. Bissett, D. (1969).

<sup>6</sup> Reading Research Quarterly, 23, 285-303. Applebee, A.N., Langer, J.A., & Mullis, V.S. (1988).

backgrounds<sup>7</sup> shows that children who have become readers almost always have books immediately accessible.

51. The establishment of classroom libraries is a strategy for improving reading acquisition in the early grades. Very few children in PNG have the chance to develop reading habits and a love of books at home, so schools need to make the development of the child-book relationship central in reading curriculum and instruction. Because most people's reading habits have largely developed by Grade 6<sup>8</sup>, special emphasis is placed on promoting voluntary reading in Grades P + 3-6. Voluntary reading is more easily facilitated in classroom libraries. The existence of classroom libraries also means that teachers will be encouraged to change how they support reading acquisition in the classroom. Changes in daily classroom practice would be expected to include: (1) creating opportunities for children to practice reading skills through self-selected reading; (2) integrating reading instruction and voluntary reading programs; (3) establishing attractive, accessible classroom library centers; (4) facilitating literacy-related games and activities; (5) assuring children of access to books by housing them closer to children and displaying them attractively; (6) presenting literature to children on a daily basis; and (7) discussing books with children.<sup>9</sup>

52. READ PNG will reflect the success of similar programs in informing teachers of the value of classroom library centers, supporting teachers in their efforts to create quality library centers, and developing voluntary reading habits in elementary and primary school reading programs. The Latin America region has numerous examples of programs that successfully promoted reading through putting books directly into classrooms. The most prominent example in the East Asia Region is READ Mongolia, which has successfully promoting reading in all Mongolia's rural schools. A group from PNG visited the READ Mongolia program in 2009.

53. Similar programs to READ PNG have been shown to produce measurably improved reading outcomes in a short time frame. An EGRA-type assessment that was repeated in Kenya in 2009 showed significantly improved reading scores – as much as 80 percent – after only one year of reading support interventions (books, materials and teacher training).<sup>10</sup> A 1996 study in Sri Lanka showed an 11 percent increase in reading scores after only 9 months of a book flood and teacher training intervention, compared to 4 percent for a control group. Similarly, a 1980 study from Fiji showed significant improvement in reading scores only 8 months after a book flood and teacher training intervention.<sup>11</sup>

54. In addition to the fact that classroom libraries have been shown to be effective in terms of promoting reading acquisition, classroom libraries are a much cheaper option than

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<sup>7</sup> Taylor, D., & Dorsey-Gaines, C. (1988). *Growing up literate*, Portsmouth NH.

<sup>8</sup> The amount and effect of recreational reading in selected fifth grade classes. Unpublished doctoral dissertation, Syracuse University, Syracuse, NY. Bloom, B. (1964).

<sup>9</sup> Voluntary reading: Forgotten goal. *The Educational Forum*, 50, 159-168. Morrow, L.M. (1991).

<sup>10</sup> Crouch, Luis; Korda, Medina; and Mumo, David, *Improvements in Reading Skills in Kenya: An Experiment in the Melindi District*, EGAT-ED/USAID (2009).

<sup>11</sup> Elly, W., B. Cutting, F. Mangubhai, and C. Hugo (1996). *Lifting Literacy Levels with Story Books: Evidence from the South Pacific, Singapore, Sri Lanka, and South Africa*. Paper presented at the World Conference on Literacy (Philadelphia, PA, March 12-15, 1996).

supplying designated libraries in countries, such as PNG, in which only a small share of schools already have library infrastructure. The only specialized infrastructure required for classroom libraries is adequate bookcases. The cost of supplying bookcases for classroom libraries in the Mongolia program was a mere 10 percent of the costs of books. Alternatively, the UBE Plan currently calls for a larger investment in library infrastructure (K132,737,000 over five years) than the amount to be invested over the same time period in actual library books (K100,595,000). The initial delivery of books for traditional libraries would also not be completed until after all facilitates are completed in 2015, while READ PNG is expected to be completed by the end of 2013. The READ PNG classroom libraries, therefore, would put more books in front of children faster and at less cost. To the extent that investments are justified in designated libraries in the upper primary grades, schools could make these a spending priority for their subsidy allocations.

55. ***Textbooks vs. non-textbook learning materials:*** The project is focusing its support on non-textbook learning materials instead of textbooks because other donors, including AusAID and EU, are providing or have provided support for textbooks. The focus on non-textbook materials is also justified in view of the project's focus on student achievement in reading. Non-textbook learning materials will help encourage more child-friendly teaching practices and provide children with a wider range of learning materials to engage them in reading. The project will continue to monitor implementation of the new textbook provision by the AusAID and EU.

### **C. Fiduciary**

56. A Financial Management Assessment, consistent with the Financial Management Arrangements in Bank Projects (Guidelines to Staff) was undertaken at pre-appraisal. The overall financial management risk is expected to be substantial, but would be reduced to moderate through a number of measures detailed in Annex 7. These include the recruitment of an experienced financial management staff in the DoE, support by a Financial Management Advisor (TA), additional training under the project and the strengthening of internal audit functions of implementing agencies. Designated accounts would be established with the DoE.

57. A procurement capacity assessment of DoE has been undertaken. The overall procurement risk is expected to be "high" consistent with the Country Procurement Assessment Report. The main risks concerning procurement under the project are expected to include: (1) lack of procurement expertise; and (2) recent changes in the national procurement regulations. An action plan has been developed and adopted to mitigate those risks and it is presented in Annex 8. Actions include the recruitment of a qualified procurement officer and the provision of Technical Assistance. A procurement plan has been prepared and will be approved prior to signature of the grant agreement.

### **D. Social**

58. The main objective of this project is to improve the reading ability of students at the elementary and primary levels. This objective will be achieved by providing reading materials and teacher training. While significant government and donor funding is devoted in PNG to encourage parents to enroll their children in schools, increasing education access is not a direct objective of this project. The project is focused on improving reading ability for those students already enrolled in elementary and primary schools by providing reading materials. An

assumption is made that parents who enroll their children in elementary and primary schools intend for their children to gain reading skills. While not a direct aim of the project, it is expected that improving the quality of education by increasing reading skills will provide an incentive to increased enrollments. Improving reading skills is also expected to have an impact on reducing dropout rates. However, increasing reading skills is considered a primary goal of this project, independent of any impact on enrollment or retention.

59. Teacher training programs will be carried out by provinces. Teacher training curriculum programs being designed under the project will require that provincial authorities undertake assessments of teacher attitudes and working conditions in order to be responsive to conditions on the ground in elementary and primary schools.

60. The EGRA surveys to be undertaken as part of the project will contain socioeconomic surveys of student backgrounds, which will provide a better understanding of the beneficiary group and help to target resources in future UBE phases.

## **E. Environment**

61. The project does not finance civil works or any activities that could have an adverse environmental impact.

## **F. Safeguard policies**

62. The project triggers the OP 4.10 Safeguards Policy (Indigenous Peoples) as the project spans the whole of PNG and the country is made up of a myriad of indigenous groups. GoPNG will not prepare a separate Indigenous Peoples (IP) Plan, but the following aspects of an IP Plan have been integrated in the design and preparation of the project (See Annex 10 for details):

- a. *Social Assessment*: Given the limited scope of the project (e.g., providing reading materials and delivering teacher training to improve children's reading ability), the fact that the project is only targeting existing schools and existing students, and the broad consultations and analysis undertaken in preparation for the UBE Plan (which is directly relevant to this project), a dedicated Social Assessment was not prepared. Elements are, however, included in Annex 10 of this document. The principal issue with regard to indigenous people is that books at the elementary level will not be available in all of the vernaculars. Nonetheless, appropriate books with blank text that can be easily adapted to any language will be provided for teachers to fill in, and training will be provided for teachers in this process. Non-book, language neutral reading support materials will also be provided. The project is designed to finance the publishing of books and not the translation of books (although publishers will be encouraged to re-publish books in vernacular languages). All elementary and primary schools in the country, as well as teachers, will be covered by the project.
- b. *Free, prior and informed consultation leading to broad community support (during preparation)*: Specific consultations relating to this project were not held



because a broader engagement and consultative process is already in place and ongoing by GoPNG. As has been described, this project supports one of the priorities outlined in PNG's UBE Plan. During preparation of the UBE Plan in 2009, DoE undertook substantial consultation of stakeholders in all of PNG's 20 provinces. The project has been designed to address some of the needs identified in the UBE Plan. The project is building on the continuous consultation between the national government and provincial stakeholders, as well as with NGOs and church organizations, to inform this project.

- c. *Free, prior and informed consultation leading to broad community support (during implementation):* During project implementation, CDAD will be the focal agency in touch with schools throughout the country to disseminate information about the project and inform stakeholders when reading materials will be distributed and teacher training delivered. This process will be undertaken in all of PNG's provinces. Moreover, the project will provide funding for an information campaign that will publicize the investment being made. The project also has in place a dissemination plan to ensure that all publishers in PNG are aware of the project and can submit their books for consideration. Training will be provided to publishers on the World Bank's procurement guidelines. The ongoing teacher training and the existence of peer mentors will be an important way to continue to engage the community in achieving the aims of this project. Finally, the implementation of the EGRA surveys will be a mechanism to consult with stakeholders, and monitor the reading ability of children.

63. *Measures to ensure social and economic benefits:* GoPNG and its donor partners are aware of the difficulty of providing books in all the vernacular languages in a quick and efficient manner. Some languages do not have orthography, and the PNG tradition of teaching orally, rather than through reading, is strong and means that not all languages have books available, particularly at the elementary education reading level. The project is not financing the translation of books, only the printing of books (although publishers will be encouraged to republish books in vernacular languages). However to ensure that no school or child is disadvantaged, all schools will be provided with reading books that can be easily adapted to the vernacular language, as well as non-language specific reading materials. The project will also ensure benefits to elementary and primary school teachers by providing training.

<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>
Environmental Assessment ( <u>OP/BP</u> 4.01)	[ ]	[ X]
Natural Habitats ( <u>OP/BP</u> 4.04)	[ ]	[ X]
Pest Management ( <u>OP</u> 4.09)	[ ]	[ X]
Indigenous Peoples ( <u>OP/BP</u> 4.10)	[X]	[ ]
Physical Cultural Resources ( <u>OP/BP</u> 4.11)	[ ]	[ X]
Involuntary Resettlement ( <u>OP/BP</u> 4.12)	[ ]	[ X]
Forests ( <u>OP/BP</u> 4.36)	[ ]	[ X]
Safety of Dams ( <u>OP/BP</u> 4.37)	[ ]	[ X]
Projects on International Waterways ( <u>OP/BP</u> 7.50)	[ ]	[ X]
Projects in Disputed Areas ( <u>OP/BP</u> 7.60)	[ ]	[ X]

### **G. Policy Exceptions and Readiness**

64. There are no special policy exceptions foreseen under this project. The project is ready for implementation.

**Annex 1: Country and Sector or Program Background**  
**PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

1. Modern education in PNG effectively began when independence was achieved in 1975. The expansion of the education system was supported by relatively generous budgetary allocations. But PNG's educational achievements have remained considerably below those of Asian countries, in general, and the question of quality of education has been a recurring theme in the donor programs. In 2004, the PNG Department of Education published the National Plan for Education for 2005-2014 entitled '*Achieving a Better Future*' (NEP 2).

2. Three years later the CAS stated that despite some advances, progress toward the MDGs had been disappointing and the internationally defined MDG targets would remain out of PNG's reach well beyond 2015. Looking at education in the same year, 2007, the *Strategic Directions for Human Development in Papua New Guinea* said, 'Without a special effort, PNG will not be in a position to move decisively toward [Universal Basic Education] UBE until 2020 or 2025 at the earliest. This will leave PNG and its people well behind the rest of the world. NEP 2 has set completion targets for basic education by 2014 that are significantly below current achievements in almost all regions of the world.

3. PNG experienced fundamental changes in the education sector 1995-2008 with a dramatic expansion of its education system. The most profound change was to nine years of basic education (three years of elementary schooling and six years of primary) followed by four years of secondary schooling. Elementary schools were introduced for the first time together with a new curriculum aimed at improving the quality of teaching and learning, and developing life skills. Crucially, initial literacy began to be instructed in the vernacular mother tongue.

4. Basic Education in PNG is divided into elementary education (grades Prep, 1 and 2 for children aged 6-8) and primary education subdivided into Lower (consisting of grades 3 to 6) and Upper Primary (consisting of grades 7 and 8). The transition to English begins in the third year – grade 2.

5. As part of the Curriculum Reform Implementation Project (CRIP) all elementary schools are supposed to have received a copy of the new curriculum but materials such as syllabuses, teacher guides activity and resource books have not had wide distribution. New teachers have received some training, but continuing teacher support has been weak.

6. GoPNG policy is that the language of instruction in elementary education schools is the language of the community – whether it be the local vernacular or a lingua franca. This allows, in principle, for acquisition of literacy in the language that the children speak. However, the debate continues and the Education Department's own State of Education Report for 2008 asks the question 'How are we going to resolve the language in schools issue?'. The report calls for a dispassionate review of available research to determine whether the use of vernaculars does indeed bring about improved long term learning outcomes.

7. Under the Organic Law on Provincial and Local Level Government of 1996, provincial and newly created local level governments were given significant expenditure responsibilities for education. This had far reaching implications in terms of capacity to deliver education services. It also led to a lack of clarity in the assignment of functions at different levels of government, problems with communication, flows of funds, information and accountabilities that are still being addressed. A number of provinces today want to use Tok Pisin as the language of instruction and others English from the earliest grades. Some languages currently used in elementary schools have no established orthography and this remains a problem. The development of appropriate reading materials for the elementary schools in the form of books, charts and pamphlets is as important as orthography development.

8. The effectiveness of the reformed curriculum remains a matter of debate. A number of impact studies have been commissioned by the CRIP and undertaken by independent sub-contractors. From 2001 to 2006 a longitudinal study looking into the impact of the structural and curriculum reforms on teaching, learning, and the perceptions of the community was undertaken in twelve selected school sites representing the four regions of the country. It concluded that the reforms had led to an increased attendance in primary schools and that a combination of languages such as Tok Pisin and vernacular provides students with a clear learning advantage over children who learn in one single language. But it pointed out that schools had received incomplete information about the education reforms and implementation requirements. A further study found that children in PNG learn to speak, read and write more efficiently in the language with which they are most familiar and that as a result of the education reform, elementary school children are gaining a better understanding of their culture and their place in it. Crucially, however, it concluded that teachers' effective use of learning materials was related to the number of years teaching experience they had and also the number of in-service courses that they had been exposed to.

9. At primary level the outcomes based curriculum, syllabus and teacher guides have been distributed to all schools under the CRIP. A major component of the EU's Education Training and Human Resource Development Training Program (ETHRDTP) is the distribution of textbooks. This has proved problematic but is currently underway supplying and delivering 2.6 million textbooks for basic education grades 3-8. All books are in the English language which is the medium for these grades.

10. The ETHRDTP textbook initiative does not include the three elementary grades and is solely concerned with textbooks in the English language. Even after completion there will remain a severe shortage of appropriate supplementary reading materials to enhance reading skills at all levels of basic education. This is acute in elementary schools although attempts have been made under CRIP to assist individual elementary and primary schools, or clusters of these schools to develop local resources in localized contexts. In primary schools, NZAID has since 1994, funded the Schools Journals Project which has developed learning materials relevant and appropriate for PNG primary school students.

11. Monitoring literacy in basic education has been uneven. In 2005, pilot tests were carried out, but it was not repeated as planned in 2007 due to lack of funding. UNICEF quotes the literacy rate for male youth 2003-2007 as 63 percent and for female youth 65 percent.

12. Based on the current arrangements, professional development training for teachers is coordinated with the Department of Education's Teacher Education and Staff Development Division to ensure sustainability and avoid establishing stand alone and parallel programs. The training delivered at provincial level will allow District Education Coordinators and Elementary Coordinators to attend.

### **Library Sector**

13. The National Library Service is responsible for both the public library system and the school library system. Public libraries have been cut back and services centered on the Office of Libraries & Archives, National Library situated in Waigini, Capital District. Currently, GoPNG supports the library sector through the DoE annual recurrent budget of which the National Library Service (NLS) receives a small percentage of the total. In 2010, this amounted to \$295,952.

14. Since 1980, this budget has amongst other things supported National Book Week, which is held annually in August to promote and heighten awareness of the enjoyment of books, reading, information and libraries. It has also funded National Literacy Week and PNG's contribution to International Literacy Day (September 8th).

15. The Office of Libraries & Archives, National Library is responsible for training primary and elementary school teachers on basic skills of librarianship through the Organization of School Library Workshops (OSLW). The scheme relies on counterpart funding between NLS and Provincial Administrations, which has not proven to be successful in practice.

16. In 1998, the PNG Library Association was revived with funding support from UNESCO.

### **Localized learning materials**

17. The new curriculum in PNG gives a lot of support to teachers in terms of planning and delivering an outcomes-based curriculum. But the suggested resources outlined in these curriculum materials are not provided by the National Department of Education. On a small scale, NGOs and church organizations promote local initiatives. Attempts continue to be made to encourage teachers to seek local solutions which alleviate the problems of teaching in so many languages. Resource material procurement should be part of School Learning Improvement Plans (SLIPs) and books that attract the NLS subsidies should be bought with school fees each year. However, one of the untapped resources is teachers themselves and the environment around them. Low-tech resources can be developed and used, and even shared. Nevertheless, there are real challenges in relation to materials and libraries in the PNG context. Many teachers expect everything to be given to them, but do not always look at the existing resources they have in their subject cupboards or indeed in their local environment. Most schools do not have libraries, so materials may arrive at school level but then remain locked away or go missing.

## **Publishing**

18. PNG has traditionally relied heavily on the Australian education publishing industry, itself dominated by three large players<sup>12</sup> of English origin. While these companies produce satisfactory textbooks, they do not tailor their output to the PNG market; and the plethora of languages spoken by so few mean that any commercial foreign publisher is unlikely to be interested in publishing the materials needed at elementary and lower primary education levels.

19. This hole in the market has not, however, been filled by local publishers of whom less than half a dozen produce books on a regular basis. Some printers masquerade as publishers but do not have editorial skills, although they can draw on a large pool of local illustrators.

20. The large number of translations of the New Testament<sup>13</sup> completed or being undertaken together with the Alphabet Design Workshops and the existence of primers and transfer primers in many languages are evidence that, although there are few publishers as such in PNG, the skills required to write, edit, design and illustrate, as well as to print, bind and distribute, exist. At the same time advances in technology have meant that smaller print runs are becoming more commercially viable every year. The problem remains that the market for books in the vernacular is not only small but it is financially poor.

21. Some work has been done by Australian Publishers and by local NGOs in the production of 'shell' books and they remain a useful way of producing a lot of reading materials relatively easily and inexpensively.

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<sup>12</sup> Oxford University Press, Macmillan and Pearson.

<sup>13</sup> New Tribes Mission, Pioneer Bible Translators and SIL International are three groups working on producing materials in vernacular.

**Annex 2: Major Related Projects Financed by the Bank and/or other Agencies**  
**PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

1. The World Bank Library Development Grant 1994 – 2001 provided \$3,435,366 for the purpose of developing libraries in community schools, Provincial High Schools (PHSs), vocational schools and College of Distance Education (CODE) centers improving literacy development and encouraging reading through the procurement and supply of quality library books to schools. It also built capacity by providing basic training to teachers in the organization and management of school libraries and in library information, research skills instruction through workshops, in-services and school visits and by recruiting two library advisors and one support librarian.
2. The conclusion of the final report was that, Library Development has provided considerable improvement to access to books to support curriculum in schools for quality education to all in all levels of education. The provision of library books to students enhances the school curriculum and develops literacy skills for life-long learning. It remains the number one recipe for high quality low cost education.
3. Since 2005, GoPNG through DoE under the Education Quality Program (EQP) has maintained the School Subsidy for elementary and primary school library books in the amount of \$736 per school. The subsidy is applied when schools purchase library books from the National Library Warehouse under the Kina for Kina scheme which matches the school's contribution with a state subsidy. It was initiated by the World Bank Education Development Project (CPL-35370 1991-2001).
4. AusAID, through the DoE and the NLS, has supplied donor assistance specifically to the library sector. In 2005, the government of Australia donated \$1,104,299 for the refurbishment of the National Library Building on the occasion of on PNG's 30th Independence Anniversary. Since 2000, NZAID, in collaboration with the NLS, has made funds available through HOPE Worldwide (PNG) to distribute second hand library books and computers to primary and high schools and provincial and district library workshops. This partnership remains active.
5. There are various private organizations also providing funding to small scale library development projects but without the involvement of the NLS. Among these are the Buk Bilong Pikini Project, which is an NGO founded by the previous Governor's wife, and the Digicel Community Learning Centers, which is a PPS initiative of the Digicel Foundation funded by the eponymous telecoms company. Both run drop-in library facilities for out-of-school children on a small but expanding scale.

**Annex 3: Results Framework and Monitoring**  
**PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

**Results Framework**

<b>PDO</b>	<b>Project Outcome Indicators</b>	<b>Use of Project Outcome Information</b>
To improve the reading skills of elementary and primary education students.	Students in elementary and primary schools will demonstrate improvements in their literacy skills as defined by early grade reading assessments (to be reported by gender).	Reading results will be relevant to ongoing curriculum development and teacher training programs; it will also be used to monitor system performance in terms of improving education quality as defined in the UBE.
<b>Outputs</b>	<b>Output indicators</b>	<b>Use of output monitoring</b>
Provide elementary and primary schools with learning materials and professional development of teachers.	<p>Number of students in elementary and primary schools that have access to learning materials and improved teaching practices.</p> <p>Number of teachers in elementary and primary schools who have participated in project professional development activities.</p> <p>Classroom teaching practices reflect enhanced knowledge in reading instruction and use of learning materials.</p>	<p>Monitoring of project progress.</p> <p>Timely identification of project areas that may need special attention, revisions and/or support.</p>
Build the capacity of the National Department of Education in support of the implementation of the UBE Plan.	Number of provincial EGRA assessment reports completed.	<p>Monitoring of project progress.</p> <p>Timely identification of project areas that may need special attention, revisions and/or support.</p>



<b>Intermediate outputs</b>	<b>Intermediate output indicators</b>	<b>Use of intermediate output monitoring</b>
Increasing the availability of learning materials by establishing classroom libraries.	<p>300<sup>14</sup> new children’s books will be available on the local market, either written by local authors or translated into vernacular languages from international publishers.</p> <p>Classroom libraries established in 32,402 grade P +1 to 6 classrooms in 9,624 schools.<sup>15</sup></p>	<p>Inform project progress reports.</p> <p>Inform mission supervision reports.</p> <p>Timely identification of areas where project faces risks and difficulties and requires additional support.</p>
Promoting reading through professional development, professional teacher networks and public reading campaigns.	<p>860 teachers from 86 districts trained and supported as peer mentors.</p> <p>Two visits per school from 860 peer mentors to 9,624 schools.</p>	<p>Inform project progress reports.</p> <p>Inform mission supervision reports.</p> <p>Timely identification of areas where project faces risks and difficulties and requires additional support.</p>
Strengthening capacity for early grade reading assessment.	<p>At least 15 provinces complete early grade reading assessment baselines.</p> <p>EGRA assessments repeated in at least 2 provinces.</p>	<p>Inform project progress reports.</p> <p>Inform mission supervision reports.</p> <p>Timely identification of areas where project faces risks and difficulties and requires additional support.</p>

<sup>14</sup> 60 titles would be provided for elementary schools and 40 titles for each of grades 3-8.

<sup>15</sup> These calculations are made on the basis of figures given as: 5,939 Elementary Schools 17,817 classrooms; 3,281 Primary school (□19,686 grade 3-8 classrooms). □□

## **Arrangements for Results Monitoring**

### **Institutional Issues and Data Collection**

1. There will be two types of activities under monitoring and evaluation:

#### **I. Monitoring of Project Outputs**

2. The CLMU will work with the CDAD to gather information to track project outputs periodically. The most important channels to produce monitoring indicators are:

- Project management records and reports. They will allow tracking progress relative to the following aspects of the project:
  - i. Printing and production of new titles of children's books.
  - ii. Books delivered to elementary and primary schools (by grade and province).
  - iii. Number of bookshelves delivered to schools (by grade and province).
  - iv. Number of students, classrooms, teachers, and schools participating in reading-related activities organized.
  - v. Number of educators trained by grade, province, type of educator, and school.
- Delivery confirmation: schools will directly participate in monitoring that project funded materials reaches them. The READ PNG package will include material for each classroom (teacher and students) to report the receipt of the classroom library.

#### **II. Evaluation of Project Outcome**

3. A baseline Early Grade Reading Assessment survey will be undertaken at the beginning of project implementation in East New Britain Province. A similar survey will be undertaken two years later. The EGRA survey will be rolled out to other provinces (at least 15) during the life of the project, and is expected to be repeated every two years in each province for which a baseline has been established.

4. In addition to EGRA survey, a classroom questionnaire will help assess any changes in teaching practices during project implementation. This will allow looking at project outcomes such as number of hours per week teachers spend on literacy activities (reading books, writing activities) and number of hours per week students spend reading on their own.

## Capacity

5. For project outcomes evaluation, local capacity will be supplemented through the following resources:

- A EPDF-funded consultant will develop an EGRA survey prior to project start up for students in grades elementary prep through primary grade 2 (four years) that is comparable to similar international assessments but adapted to the Papua New Guinean multi-language context and culture. This consultant will also provide training to the local agency in charge of the evaluation in the East New Britain Province. Project funding will continue this EGRA roll out in other provinces.
- A project-funded consultant will provide technical support during project implementation to administer the EGRA assessment to provinces as a baseline, as well as to undertake the classroom questionnaire survey and to repeat the EGRA assessment every two years.

**Annex 3 continued: Arrangements for results monitoring**

Project Indicators	Baseline	Data Collection and Reporting			Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
		2011	2012	2013			
Students' literacy skills by grade and gender	Baseline data to be collected	Follow up survey	-	-	Every two years, by province	EGRA	CLMU – consultant
Teaching practices and in-class time spent in reading activities (e.g., number of hours per week teachers spent on literacy activities like reading books, or writing activities; number of hours per week students spent reading on their own).	Baseline data to be collected	Follow up survey			Annual, years 1 and 2	Class Questionnaire	CLMU – consultant
Number of children book titles published in vernacular languages and available in the local market (excludes pirated translations)	Baseline data to be collected	50	100		Annual	Survey on availability of local reading material.	CLMU – consultant
Number of books delivered to classrooms by READ PNG	0	0	600,000	400,000	Monthly	(1) CLMU records. (2) Delivery confirmation.	(1) CLMU (2) CLMU
Number of educators that receive professional development in reading and writing.	Baseline data to be collected				Quarterly	(1) CLMU records (2) Provincial reporting	(1) CLMU – (2) Provincial Education Officers
Book shelves in schools.					Quarterly	CLMU records	CLMU
Number of students tested using EGRA					Annual	CLMU records	CLMU

## **Annex 4: Detailed Project Description**

### **PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

#### **Introduction**

1. The project's design is based on several simple assumptions about what investments could improve access to and use of books and learning materials. These assumptions are: (1) students need easily accessible learning materials to learn to read; (2) teachers need professional development and the support of peers when making changes in practice; (3) there is a close connection between reading and all other educational achievement; and (4) other government policies, actions and capacities need to support changes desired in classroom practice.

2. All children in elementary and primary schools and their teachers will be direct project beneficiaries. Indirect project beneficiaries will be children in PNG who have access to the increased number of book titles available in the local market. In the long term, increasing levels of reading achievement will be presumed to have a positive impact access and retention, overall achievement levels in all subjects and better school and teacher practices. These improvements in education should translate into broader economic and social benefits for the population as a whole.

3. The project will provide support for three major initiatives: (1) increasing the amount of learning materials available to students and teachers in elementary and primary schools; (2) providing training to teachers and their school networks in the use of books and materials; and (3) strengthening the government's capacity to monitor student learning through the use of Early Grade Reading Assessment (EGRA). The project will also provide some financial and technical support for procurement, financial management, and monitoring of performance.

#### **Institutional and Implementation Arrangements**

4. Within the Ministry of Education, the National Department of Education (DoE) will be the principal executing agency for the project. A Classroom Library Reference Group of stakeholders from the DoE will be constituted for the purpose of overseeing the organization and implementation of READ PNG. The Group will be supported in implementation by the appointment of a national Project Coordinator, who will be responsible to the Reference Group and report to the Chair of the Reference Group.

5. The project will support the establishment of a small Classroom Libraries Management Unit (CLMU) within the Curriculum Development and Assessment Division (CDAD), to be headed by the Project Coordinator. The CLMU will support up to three additional national consultants who would be expected to coordinate book evaluation, selection, procurement and distribution, teacher training and EGRA. These consultants would act as liaisons between CDAD, other DoE sections and provincial authorities. There will be a small budget to finance short term international technical consultants as needed in these areas, as well as technical assistance for procurement and financial management.

## **Timing of the project activities**

6. A key element of READ PNG is that trained teachers and new materials arrive simultaneously in schools. Responsibility for distribution of the materials to provincial capitals will be with the CDAD. The subsequent distribution to district and school level will be the responsibility of the Provincial Education Officers (PEOs). PEOs will coordinate delivery with their training programs so that teachers take back to their schools the school's allocations of books.

7. The project will begin in 2011 and is expected to run over three years. Although the timetable for materials being received in the schools will be dictated by the timetable for rolling out the teachers' professional training, the processes of start-up, materials selection, and procurement will begin immediately.

8. Because the training of teachers and the distribution of the books to the schools is the responsibility of the PEOs, a large number of provinces can begin implementation simultaneously; their only time constraints being when they receive training support and when they receive classroom library materials. The timing of book distribution will be forecast prior to project start up using the experiences and lessons learnt from the supply of textbooks that is currently taking place under AusAID and EU programs in PNG.

## **Description of Project Activities**

### Part 1 -- Increasing the Availability of Books and Learning Materials by Establishing Classroom Libraries (USD 14.3 million, or about K38.6 million)

9. READ PNG will be a national project implemented in all 20 provinces of Papua New Guinea. It will supply a single package of literacy and learning materials to each of over 6,000 elementary schools. It will also provide a library of books to each of the more than 14,000 classrooms of grades 1–6 of lower primary and more than 7,000 classrooms of grades 7 & 8 of upper primary. Each classroom library will consist of approximately 40 titles with 2 copies per title.

10. The policy of the Government of Papua New Guinea (GoPNG) is that at six years of age all children begin their basic education in an elementary school in a language that they speak. At nine years of age, children continue their basic education in a primary school. After six years of primary education that begins with a bilingual program, children should have the skills to live happily and productively, contribute to their traditional communities and use English to understand basic social, scientific, technological, and personal concepts.

11. The project will support the central evaluation, selection and procurement of illustrated children's early grade reading materials including supplementary reading books in order to quickly increase the supply of literacy materials in schools. The assessment will be made according to quality; the selection of materials will be done with consideration to both cost and quality; and priority will be given to books that address themes of the environment, health and social inclusion. The selection process will focus on three different sources of early grade reading materials: (1) locally produced and published books (both in print and out of print); (2)

internationally published books and literacy materials to be re-published in selected vernacular translations by local publishers; and (3) new early grade reading materials proposed by local teachers and publishers.

12. An evaluation panel will be established to assess materials.<sup>16</sup> The panel will be supported by a local organization and an international publishing expert in the evaluation and selection of the books. Titles will be selected for each of the elementary grades P, 1 and 2, on the basis of suitability and availability in the vernacular and approximately 40 titles will be selected for each of the primary grades 3-8. Schools will also be provided with a Children's Book Catalog. In the final year of the project, elementary and primary schools will be encouraged to place orders through the catalog using their school subsidy funding. The NLS's kina for kina program is also expected to be expanded and targeted to increase sustainability.

13. Professional development will be provided to teachers on how to use classroom libraries to encourage children to read and to improve their reading ability and how to create localized reading materials. This professional development is described below.

## **Priming the Market for Children's Books**

### ***Selection of Published International and Local Books***

14. CLMU will publish requests for submission of children's books and early grade reading materials in local newspapers and international websites, including the UN's Development Business (UNDB). It will undertake a dissemination plan using multimedia announcements in English, Tok Pisin and Tok Motu to ensure that all sources of vernacular materials are reached. NGOs, local or international publishers may submit books. International publishers will be encouraged to work with local publishers or foreign publishers' agents to re-publish their books in selected vernacular languages where appropriate. Publishers and NGOs will also be asked to submit early grade teaching resources to the selection panel.

15. Although the specific criteria for book selection remains to be defined by CLMU with the support of an international publishing expert, a broad framework has been agreed.

16. Preference will be given to high quality books with attractive and appropriate illustrations in order to ensure both low cost and their interest to children. Individual publishers will not be allowed to submit more than 200 book titles. Textbooks and readers supplied under the ETHRDTP project will be excluded to avoid duplication of titles in the schools.

17. Books submitted for assessment by the evaluation panel can be in any vernacular languages, Tok Pisin or English. In their submissions to the panel, local publishers or foreign publishers' agents will need to show evidence, through a letter of agreement, that they have been given the license by the appropriate party, either author or international publisher, to publish and print the book. The initial goal is to select a majority of local titles, although this goal may be reconsidered depending on the response. Any publisher may submit books for evaluation and all

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<sup>16</sup> Panel members will be appointed by CDAD based on their technical experience and knowledge regarding early grade reading, teaching and learning.

books with a valid copyright will be considered by the evaluation panel. Publishers will be asked to submit at least two copies per title along with a form that lists the material specifications for each title.

18. The Department of Education Standing Selection Advisory Committee (SSAC), supported by the CLMU, will be responsible for organizing book and early learning materials evaluation, selection and procurement. The SSAC will be supported by an international publishing expert, as well as a local organization that will help facilitate the selection logistics. The Secretary of Education will select panel members with advice from the CLRG and the assistance of the international book consultant. The panel or panels will be composed of teaching professionals, librarians, curriculum experts and representatives from local NGOs.

19. The international publishing expert will work with CLMU to provide detailed descriptions of the, criteria and train the evaluation panel members. All materials received for consideration by CLMU will be evaluated by the panels on the basis of an agreed scoring grid. Once criteria are finalized, they will be shared publicly.

20. CDAD, through the CLMU and in cooperation with the DoE's Corporate Services Procurement Unit, will contract for approximately 7,000 copies of each selected title in the English language<sup>17</sup>. The number of copies of books in vernacular will be determined by the number of classrooms that use that particular vernacular. The international publishing expert will assist in contract negotiations and the procurement of books. For some cases where the materials are of a proprietary nature, direct contracting will be necessary in order to include the materials in the classroom library.

### ***Selection of Early Grade Reading Materials***

21. The evaluation panel will also review early grade reading materials for selection in elementary school classroom libraries. Materials will be accepted from local publishers, stationers and school suppliers. Local suppliers or foreign suppliers' agents will need to show evidence, through a letter of agreement, that they have been granted permission from the owner of the intellectual property rights to produce the materials. Additionally, they will be required to provide the technical specifications for the materials as they are to be supplied. The panel will be expected to use the same guidelines and evaluation criteria provided for books.

### ***Assembly, Storage and Distribution***

22. A consolidating contractor will be selected by CLMU to receive materials from suppliers into a single warehouse located in the National Capital District. Learning materials will be delivered by the individual suppliers to the warehouse once they are printed or fabricated. It will be the contractor's responsibility to check and receive the goods from the suppliers and then to assemble materials into supply boxes for classroom libraries. The contractor will create storage boxes to a specified design for the elementary school classroom libraries and assemble each box with the appropriate number and type of materials based on the grade level. The contractor will

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<sup>17</sup> 2 copies of each title for each of 3,530 primary schools.



also suitably package for transportation the materials for primary schools. Assembly will take place at the storage facility. These boxes and packages will be appropriately coded by school, clearly marked by grade and addressed. No box when full will weigh more than 25 kilograms to ensure that it can be moved without lifting gear. Each box will then be consolidated into container loads for each province and dispatched by container to PEOs or warehouses.

23. The PEOs will undertake logistical and administrative arrangements for receiving containers from the consolidator and preparing the inventory for distribution to schools. The PEO will ensure that there is a staff person at the provincial storage facility that can accept and log in deliveries. Books will be stored in this facility by district and by school.

24. The distribution of books will be carried out in coordination with the provincial professional development plan. Teachers will receive their classroom libraries upon completion of professional development at the place of instruction.

25. Once the teacher has received training he or she will return to her school with the school's allocation of classroom materials. The project will pay a transportation allowance to the teacher to attend the training and this will include the costs (on a standard calculation depending on distance and means of transport) of accompanying the delivery of the materials to schools. A simple monitoring system will be developed to verify classrooms received their library.

### ***Purchase of Bookshelves and Child-Friendly Furniture***

26. Limited funding will be made available through the imprest accounting mechanism to allow the PEO to organize procurement activities for purchasing needed furniture from the local market. No provincial or district level contract for bookshelves is expected to exceed \$50,000 and the contracting will be undertaken on the basis of shopping procedures. Furniture contracts are expected to include the costs of distribution. Bookshelves must contain slats and be of an appropriate height for children to have easy access to books.

### **Promoting Sustainability**

27. A main goal of the project is to increase teachers and school officials' knowledge of local books on the market. In order to achieve this, the project will finance the development of a Children's Book Catalog that will contain information about the books that are available to purchase. All books supported under the project will be included in the catalog. An effort will be made to encourage local authors and publishers to develop new books that could also be featured in this catalogue. The Children's Book Catalog will be delivered to schools together with their book packages. Catalogs will also be provided through the PEOs. Schools will be allowed to order books available in the local markets that are not in the catalog.

28. In year 3 of the project, CLMU, together with the NLS, will facilitate requests from schools for replenishing stocks of books and materials provided under the project. Schools will be expected to specify titles and quantities on order forms that will be part of the Children's Book Catalog, and return them to the NLS. Completed order forms should be signed by the school director. Schools would be expected to partially fund re-orders using school subsidy

funding. The NLS is expected to complement school funding by expanding and targeting its kina for kina program. Depending on the success of this program, it is expected that an increasing share of schools will make a contribution to books replenishment. Targeted funding for a books voucher scheme, and additional central procurement of books for classroom libraries may be considered in a subsequent phase of the classroom libraries program.

#### Part 2 -- Promoting Reading through Professional Development, Professional Teacher Networks and Public Reading Campaigns (USD 1.7 million, or about K4.6 million)

29. This initiative will provide professional development to teachers in the use of classroom libraries and activities that build upon children's literacy skills. Resources for strengthening and expanding existing school clusters to promote effective teaching practices in literacy development will be a main goal of the professional development.<sup>18</sup> Networks of teachers from the 11 elementary and primary education grades (EP, E1, E2 + P1 to P8) will be supported to promote teaching strategies in the use of learning materials and improved reading instruction, improved reading fluency and comprehension, improved student writing and critical thinking. The strengthening of professional communities will center on child-friendly practices of reading books and student writing and projects that can be inspired by the learning materials.

30. CLMU will work through the Papua New Guinea Education Institute (PNGEI) as the professional development provider to implement the professional development program. Technical assistance will be provided to build capacity for teaching literacy.

#### **Structure of Professional Development and Networks**

31. The first priority of PNGEI will be to nominate or recruit a materials development team. The team will write a training program with a teachers' handbook on literacy activities that focus on using early learning materials and books to engage students in reading, writing and vocabulary development. (The program will draw on a range of existing sources and materials including those currently used by the OSLW, School Journals, Elementary and Primary Sections of CDAD). The program will contain mini-modules on such topics as: (1) modeling how to care for and use classroom libraries; (2) teaching reading comprehension strategies; (3) promoting interactive reading of books by teachers to students; (4) ensuring a connection between reading and writing; (5) reading in small groups with children; (6) supporting differentiation to help students of all levels; (7) using assessment tools, particularly EGRA, to monitor student progress in reading and writing; (8) encouraging peer sharing and peer review of writing; and (9) encouraging home reading and parent involvement. Handbooks will also be disseminated to school heads, school librarians and the teachers that receive training under the program.

32. The PNGEI will assemble a National Professional Development Team (NPDT) that can share the professional development plan and familiarize provincial trainers with the teacher's handbook so they are prepared to teach the mini-modules. The PNGEI will assign at least two members of the NPDT to each province to train a cadre of people identified by the PEOs for training teachers thus creating a Provincial Professional Development Team (PPDT) in each

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<sup>18</sup> Many districts in PNG organize school clusters for purposed of training and delivery of material support.

province. Each trainer will be given a copy of the teacher's handbook. During this time, the professional development team will suggest to the PEOs how follow-up visits could be conducted and how schools could be evaluated. If possible, the PEOs will give the PPDT trainers an opportunity to test their methods in primary and elementary education classrooms in a few schools. Adaptations or changes pertinent to the province may be made to the professional development plan based on these visits.

33. The PEO will be responsible for the training of their teachers through their PPDT. They will be required by circular from the Secretary of Education to produce a training plan and budget. The CLMU will provide PEOs with standard unit costs for training in each province. All decisions of how to implement will be made at provincial level. The PEOs will then submit their training plans and budgets via the CLMU to the CLRG for approval. Funds will be disbursed through an imprest account based on unit cost assumptions. Training and the supply of learning materials are inextricably linked so that each province will come to a state of readiness that will trigger the beginning of the training of trainers and the supply of books.

34. The NPDT will conduct four days of professional development for the number of trainers nominated by the PEOs to disseminate the training to at least one teacher in every elementary and primary school in the province. PEO staff may also be included in the training.

35. The main focus of this professional development will be to establish classroom libraries in the schools and to disseminate good practice examples of ways to use the books to teach the modules in the teacher's handbook. Teachers should also have the opportunity to practice these activities and receive feedback from the trainers and their peers. Teachers should receive their own classroom libraries on Day 3 of the professional development so that they have an opportunity to use the books during the professional development and familiarize themselves with the material while being supported by a trainer. During the first two days of professional development, the trainers will use their copies of the classroom library books to teach the modules.

36. The PEOs will invite selected school directors and librarians to join in the workshops to learn about the project. Ideas will also be discussed about how librarians can be involved at the community level in encouraging reading and organizing competitions within and across districts, as well as in the second phase of the project when schools will be purchasing additional books from their school subsidy funding.

37. The PEOs will select a team of peer mentors from each district to provide professional development and support to other schools in the district on literacy activities that center on the use of books. Peer mentors will be selected based on the following criteria: (1) appropriate display and use of classroom library; (2) evidence of creative, student-centered literacy activities that utilize the books; (3) dedication to promoting literacy activities and reading among students; and (4) enthusiasm and willingness to participate as a peer mentor.

38. The PEOs will also evaluate whether or not each PEO is ready to begin professional development work with schools in their districts and identify any schools that may require more support. If approximately 50 percent of teachers in the school have not begun to use classroom libraries effectively, the trainer will provide additional support through a workshop and by

modeling appropriate behaviors and lessons in individual classrooms. The trainer may also solicit the help of peer mentors in supporting other teachers.

39. PEOs will act as the point of delivery for classroom libraries. The project will also support a simple verification of delivery and use of classroom libraries. The PEOs will be encouraged to include approximately two days of further professional development. The peer mentors will visit schools in their provinces to evaluate the progress of the teachers in utilizing the classroom libraries. There will be approximately two one-day visits and these visits will mostly focus on individual classroom observations. Peer mentors will provide suggestions to teachers and may even decide to model a lesson around books.

40. Based on these initial evaluations, the peer mentor will encourage schools within a district to interact and support one another. Peer mentors play a critical role in ensuring that teachers within a district connect with one another. Specific professional development funds will be allocated from the imprest account to cover the cost of transportation for one round trip visit for each school within their district. The peer mentor may also suggest a gathering of all teachers in the province at a central location to share and interact with one another. Schools will be encouraged to use their school subsidy allowances for these gatherings and additional visits.

41. Six months after the training of the teachers, the trainers will collect feedback from the peer mentors in the schools in each province. Feedback from peer mentors will inform the provincial professional development team about aspects of the project that are working well and aspects that may need to be changed. It will provide the training provider with lessons learned on classroom libraries and will allow the trainers to make adjustments to the training program before implementation in other districts. The feedback will eventually be reported to the CLMU for monitoring and evaluation.

### **Public Reading Campaign**

42. As a complement to educator development, support will be provided to the government funded National Literacy Week and PNG's contribution to International Literacy Day which currently promote reading to the greater community. In addition, the CLMU will provide funding for an information campaign that will publicize the investment being made so elementary and primary schools are fully aware of what they should be receiving under the project. The campaign will also promote family participation in schools related to reading activities. Famous national figures will be asked to participate in creative public service announcements through print, radio and television to promote family involvement in reading.

### **Part 3 -- Strengthening Early Grade Reading Assessment (USD 2.6 million, or about K7.0 million)**

43. An initial EGRA baseline survey will be undertaken in the National Capital District in the first half of the 2011 school year. This exercise will provide a demonstration effect for other provinces, as well as a pilot of the assessment instrument and the approach to the assessing reading performance in local languages. The DoE's Curriculum Development and Assessment Division will be the responsible central agency. CDAD will be responsible for coordinating

EGRA within DoE, as well as with other agencies including the PNG Education Institute, the National Library, the University of PNG, the National Research Institute and the Summer Institute of Linguistics. The Provincial Education Administration of East New Britain will be responsible for provincial-level training activities and all assessment field work.

44. Selection of languages will be one of the main challenges identified in the design of an EGRA instrument that reflects PNG's complex, multilingual context. A consensus among reading and language experts in PNG is to begin by administering the EGRA survey in Tok Pisin and one local vernacular in East New Britain Province. A section will be introduced to the EGRA instrument to assess knowledge of levels of vocabulary in English, Tok Pisin and a local vernacular to students in P3. The goal will be to compare vocabulary levels in mother-tongue and L2 among beginning readers. The final selection of vocabulary components of the instrument will be discussed with the EGRA literacy task team members (and non-team experts who may advise on this task) using the data collected from the school visits to map vernacular languages of instruction.

45. READ PNG will finance survey logistics costs (transport, per diems and accommodation) for the teams conducting school visits to map out vernacular usage, as well as the administration of EGRA instruments for each of PNG's 20 provinces during the three year duration of the project. The total average cost of EGRA field work per province is estimated at about \$50,000 (K135,000). The project will also cover logistical costs at the central level (training, printing and travel) and consulting fees for national consultants who will be responsible for training, data processing, report writing, dissemination and a reading information campaign. The total cost of administration and provincial field work for EGRA is expected to be about \$2.6 million (K7.0 million).

#### Part 4 -- Project Management and Monitoring (USD 0.6 million, or about K1.6 million)

46. Approximately \$0.6 million in funding will be required to finance the costs of a small Classroom Library Management Unit (CLMU), which will be overseen by a Classroom Library Reference Committee, the CLRC. The CLMU will include a Project Coordinator, as well as national coordinators for books selection and distribution, EGRA and teacher training. Procurement and financial assistance will fund both the DoE's Corporate Services section as well as CDAD. The CLMU will not house long term technical experts or consultants. Technical experts will be expected to work directly with CDAD's managers and technical experts, as well as local firms/NGOs to facilitate project implementation. The CLMU will have a small budget to finance short term consultants and to provide administrative and logistical support to allow NLS staff to participate in project implementation. The CLMU will also be responsible for monitoring project implementation against agreed performance indicators and for reporting on project performance and administration. See Annex 6 for detailed information on implementation arrangements, as well as Annex 3 on arrangements for results monitoring.

### **Annex 5: Project Costs**

## **PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

Project Cost By Part and/or Activity	Local US \$million	Foreign US \$million	Total US \$million
Increasing the Availability of Learning Materials by Establishing Classroom Libraries	2.5	11.8	14.3
Promoting Reading through Professional Development, Professional Teacher Networks and Public Reading Campaigns	1.5	0.2	1.7
Strengthening Early Grade Reading Assessment	2.3	0.3	2.6
Project Management and Monitoring	0.6	0.0	0.6
<b>Total Project Costs<sup>1</sup></b>	6.9	12.3	19.2
<b>Total Financing Required</b>	6.9	12.3	19.2

<sup>1</sup>Given GoPNG and other donor contributions to the UBE program, the project is expected to finance project expenditures at 100%.

## **Annex 6: Implementation Arrangements**

### **PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

#### **Project Management and Oversight**

1. A Project Steering Committee (PSC) has been established by the DoE to oversee implementation of the IDA-funded Flexible and Open Distance Education Project. This PSC will now be expanded to include oversight of READ PNG. The PSC comprises the Secretary for Education and representatives of the following organizations: Department of National Planning and Monitoring, Department of Treasury, World Bank as observer, FODE, Office of Higher Education, and University of Papua New Guinea Open Campus. The other divisions of DoE who can be invited as and when required by the PSC include: Assistant Secretaries of: Finance and Administration, Policy, Planning and Research, Curriculum Development and Assessment Division, Information Technology and Projects and PNGEI. The PSC will provide overall policy guidance and oversee project planning, organization, administration, implementation, and monitoring of the various activities of the World Bank/FTI-funded projects, as well as coordinate the use and application of the funds and resources. It will meet semi-annually to review project progress. Minutes of the meetings will be kept by FODE management and the READ PNG Project Coordinator, as required.

2. READ PNG is being prepared and will be implemented under the guidance and general oversight of the Classroom Library Group (CLRG). The CLRG was formed by the Secretary of Education (DoE) to oversee preparation and implementation of the project. The CLRG is chaired by the Assistant Secretary Curriculum Development & Assessment Division (CDAD) and includes representatives from DoE, and the National Library Service. It may from time to time assign reading experts and NGOs as temporary members. The CLRG will meet quarterly to review project issues and links to DoE programs. On a day-to-day basis, the Assistant Secretary CDAD will be responsible for overseeing the Project Coordinator for project implementation on behalf of DoE. The chart below presents the agreed upon management structure for the project.

#### **Project Implementation**

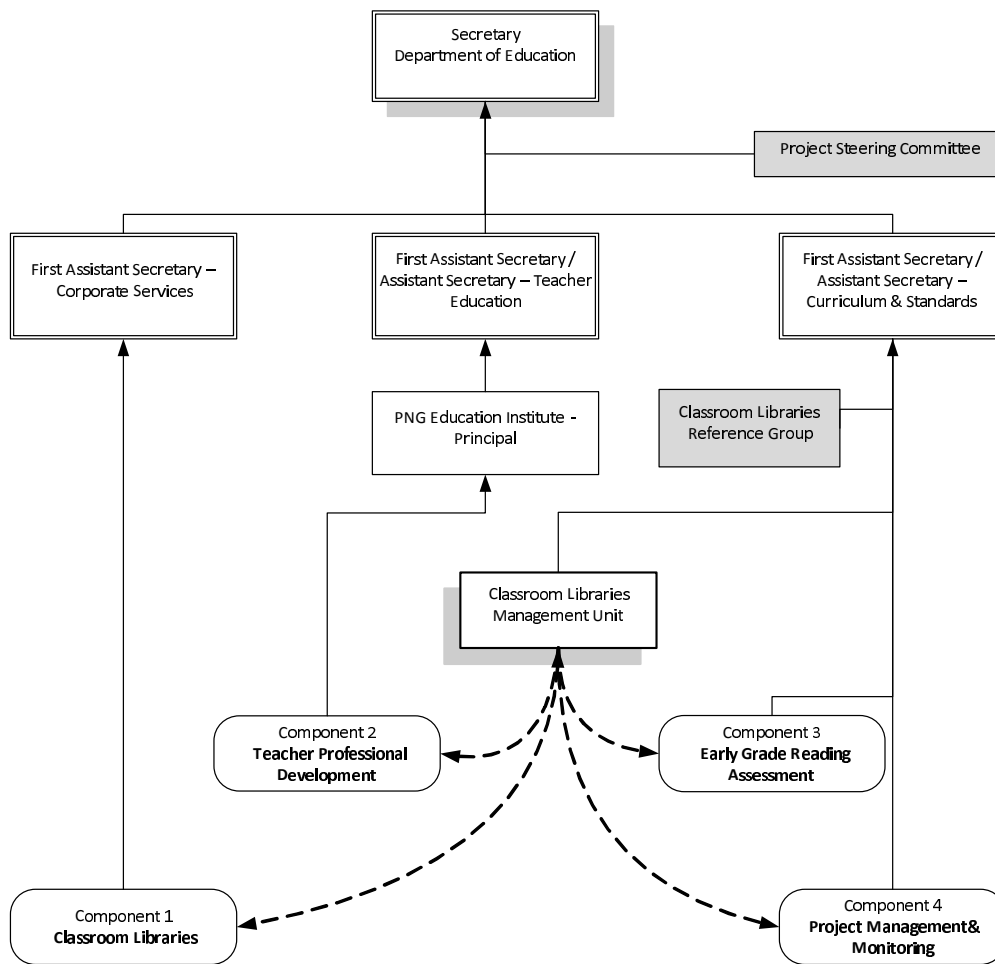
3. DoE through the CDAD will be the principal executing agency for the project. Under the CDAD, implementation will be supported by a small Classroom Library Management Unit (CLMU). The CLMU will be headed by a national Project Coordinator who will report to the Assistant Secretary of CDAD. CLMU will also engage national consultant experts responsible for EGRA and teacher training. These technical experts will support project implementation activities in the PEOs and the National Library Service, which holds responsibility for libraries, and in DoE's Papua New Guinea Education Institute (PNGEI), which holds responsibility for professional development. The Project Coordinator will be responsible for the selection and procurement of books and learning materials and for their distribution. An organizational chart for project management is provided on the following page.

4. The project will also provide support for a national Finance Officer and a national procurement adviser. These fiduciary staff will be expected to report jointly to the Corporate

Services sections of DoE which are responsible for financial management and procurement, as well as to the CLMU. Their job descriptions will, however, emphasize the importance of cooperation with DoE sections responsible for procurement and financial management.

5. The CLMU will not house long term international technical experts or consultants. International technical experts will be expected to work directly with DoE’s managers and technical experts, as well as firms/NGOs to facilitate project implementation. The CLMU will have a small budget to finance short term consultants to provide administrative and logistical support during peak implementation periods.

### Project Organizational Chart





6. Specific implementation arrangements for the two educational development activities are as follows:

### **Improving Teaching and Learning in Schools**

7. *Increasing the Availability of Learning Materials:* The Director Corporate\Production and Distribution Branch of CDAD will be responsible for procuring and distributing all books and learning materials, under the general supervision of DoE's Corporate Services Department. The CLMU will engage a local NGO or firm to assist with the selection of books. The Project Coordinator is expected to fit the profile of a "book expert" who will be responsible for implementation and supervision of the classroom library activities. He or she will be assisted by a national consultant responsible for distribution. School furniture will be procured by the PEOs using an imprest account mechanism. Provincial Education Officers will work closely with district officials to deliver books, materials and school furniture. Staff of the Provincial and District Education Offices will participate in supervision and monitoring of delivery of goods. The project will cover the travel expenses of DoE staff engaged in project supervision. The travel and expenses of provincial and district staff will be included in their imprest account allocations.

8. *Professional Development for Reading Instruction:* The CLMU will work closely with PNGEI to develop the teacher training handbook and training modules. The Secretary for Education will mandate the participation and cooperation of the PEOs in the classroom libraries and professional development initiative. Readiness to deliver training at the provincial or district level will be determined by the PNGEI. Funding for training will be allocated on the basis of standard cost coefficients to provinces on the basis of their readiness to undertake training. Training funds will be allocated to the provinces using an imprest account mechanism. The CLMU will fund the NLS for the development of an information campaign aimed at increasing awareness of reading using print and radio advertorial.

### **Improving National Monitoring of Reading Performance**

9. *Strengthening National Assessment:* CDAD, through the CLMU, will also be responsible for facilitation of the EGRA surveys in the provinces. The CLMU will engage a national consultant who will work closely with provincial officials and other local national level consultants and trainers to undertake the adaptation of the EGRA instrument into local languages and the training of provincial level enumerators. CLMU will also contract consultant support for data processing and for the analysis and reporting on EGRA findings. As with training to be undertaken by provinces, funding for the actual EGRA field work will be transferred to provinces using an imprest account mechanism.

**Annex 7: Financial Management and Disbursement Arrangements**  
**PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

**I. Introduction**

1. The financial management assessment was carried out in accordance with the Financial Management Practice Manual, issued by the Financial Management Sector Board on November 3, 2005 and elaborated further in the Principles Based Financial Management Practices Manual issued by the same Board on March 1, 2010. This annex presents results of the assessment and the proposed financial management arrangements for the project. The objective of the assessment was to determine whether the implementing entities have acceptable financial management arrangements, in order to ensure that: (1) the project funds will be used only for the intended purposes in an efficient and economical way; (2) the project financial reports will be prepared in an accurate, reliable and timely manner; and (3) any project assets will be safeguarded.

**II. Overall conclusion**

2. Overall, the financial management system will meet the financial management requirement as stipulated in OP/BP 10.2 subject to the implementation of agreed actions and mitigating measures.

3. The assessed financial management risk of the project before the mitigating measures is considered **substantial** but could be reduced to **moderate** after the proposed and existing mitigating measures described in this Annex are implemented.

4. The mitigating measures would include the following: (1) annual audit of the project accounts (2) hiring of a dedicated qualified accountant to maintain project accounts; (3) engagement of an Financial Management advisor at the beginning of the project to provide training and help set up an imprest financial system and prepare a procedures manual; (4) obtain an appropriate accounting software package on which to maintain project accounts; and (5) engagement of a short term internal audit advisor.

**III. Country Background**

5. PNG has struggled in the past ten years to improve its public finance management. A Public Expenditure and Financial Accountability (PEFA) Assessment was carried out in 2005, which considered that in some respects the public finance management system had deteriorated, noting in particular the failure to adhere to the public finance management legal framework and regular towards breaches of financial rules and processes.

6. A further PEFA, led by the PNG Department of Finance with the assistance of the World Bank, ADB, EU and AusAID was completed in March 2009. The analysis was carried out for the years 2005 to 2007 and for the 2008 budget. The assessment confirmed significant progress in several important public finance management areas identified under the Public Expenditure Review and Rationalization Report (PERR) program, although gains have not been uniform. There has been progress in improving internal audit functions. The assessment noted that budget

preparation is now more orderly, transparent and consultative and that progress has been assisted by the implementation of the 2006 Fiscal Responsibility Act. There is better linkage between the budget and the Medium Term Development Plan (MTDP). The assessment also notes progress on clearing the backlog of public accounts and active engagement by the Public Accounts Committee of Parliament and the Auditor-General's Office, although implementation of its findings is uncertain. Despite this improvement PNG still rated poorly in the 2009 Transparency International Corruption Perceptions Index where it was ranked equal 154<sup>th</sup> out of 180 nations.

7. While the legal basis for public finance management is sound and includes a Fiscal Responsibility Act, according to the 2009 PEFA, there has not always been compliance to the Act and there is a general lack of integrity in the budget process due in part to capacity issues. The assessment noted important remaining weaknesses in the government's ability to implement the budget. Significant extra-budgetary resources are still not adequately disclosed. While the budget is publicly available once passed, its presentation makes it difficult to follow. Delays in preparing the public accounts and thus the related audit reports remain. Failure to adequately address corruption by the political elite is also perceived as a significant issue. However there is increasing demand for good governance, promoted by a free press, NGOs and others.

8. The planned new IFMIS with a revised chart of accounts aligning classification with international standards, if implemented as planned, will address some of the major weaknesses by providing reliable information for monitoring budget execution by the Department of Finance and line ministries, and by reducing data entry inaccuracies and speeding up data reconciliation.

9. The 2009 PEFA assessment notes that less than 50 percent of aid is managed through country systems. The Bank uses the AGO (Auditor's General Office) for the audit of Bank projects.

#### **IV. Risk Analysis**

10. The summary risk analysis is based on the assessment of financial management arrangements proposed for this project. Table 1 identifies the key risks related to DoE's financial management capacity and suggests how these risks may be mitigated.

<b><i>Risk</i></b>	<b><i>Risk Rating (H,S,M,L)</i></b>	<b><i>Risk Mitigation Measures Incorporated into Project Design</i></b>	<b><i>Residual Risk</i></b>	<b><i>Condition of Negotiation, Board, Effectiveness (Y/N)</i></b>
<b><i>1. Country Level</i></b>				
<p><b>1.1 Country Public Financial Management Systems</b></p> <p>PNG has struggled in the last ten years to improve its PFM. Its functioning remains poor, although the 2009 PEFA assessment notes a number of improvements. While the legal basis of PFM is sound and includes a Fiscal Responsibility Act, there is a general failure to observe rules and a general lack of integrity in the budget process. Failure to adequately address corruption by the political elite is also perceived as a significant issue. However, there is increasing demand for good governance, promoted by a free press, NGOs and others.</p>	<b><i>High</i></b>	<p>The planned IFMIS contains a revised chart of accounts, aligning classification with international standards. If implemented as planned, it will address some of the major weaknesses by providing reliable information for monitoring budget execution by the Department of Finance and line ministries, through reducing data entry inaccuracies and speeding up data reconciliation.</p>	<b><i>High</i></b>	

<b><i>Risk</i></b>	<b><i>Risk Rating (H,S,M,L)</i></b>	<b><i>Risk Mitigation Measures Incorporated into Project Design</i></b>	<b><i>Residual Risk</i></b>	<b><i>Condition of Negotiation, Board, Effectiveness (Y/N)</i></b>
<p>2.1 Entity Level</p> <p>DoE has no recent experience in implementing World Bank-funded projects. However, recent experience in executing AusAID funding using an imprest account has been generally positive.</p>	<b><i>Substantial</i></b>	<p>(1) A qualified accountant will be hired and be based in DoE. S/He will be in charge of overall project financial management and disbursement.</p> <p>(2) A short term Financial Management Advisor will be employed to set up the project management systems and develop the project manual.</p> <p>(3) The DoE accounting staff will be trained continuously during the life of the project.</p> <p>(4) Accounting software or spreadsheets will be used to record project transactions.</p> <p>(5) Frequent FM supervision will be carried out during the first year of implementation.</p>	<b><i>Moderate</i></b>	<p><b><i>Before Effectiveness</i></b></p> <p><b><i>Before Effectiveness</i></b></p>
<b><i>3. Project Level</i></b>				
<p>3.1 Project Size</p> <p>\$19.2 million over a 3 year period.</p>	<b><i>Moderate</i></b>		<b><i>Moderate</i></b>	
<p>3.2 Program Complexity</p> <p>The program design is not complex from an FM perspective. It has one implementing agency, 4 parts and one expenditure category.</p>	<b><i>Moderate</i></b>		<b><i>Moderate</i></b>	
<b><i>OVERALL INHERENT RISK</i></b>	<b><i>Substantial</i></b>		<b><i>Moderate</i></b>	
<b><i>CONTROL RISK</i></b>				

<b>Risk</b>	<b>Risk Rating (H,S,M,L)</b>	<b>Risk Mitigation Measures Incorporated into Project Design</b>	<b>Residual Risk</b>	<b>Condition of Negotiation, Board, Effectiveness (Y/N)</b>
<p><b>1 Budget</b></p> <p>Budget preparation is generally relatively weak in the GoPNG budget process and hence there is a risk that budgets could be inaccurate or poorly monitored.</p> <p>Project funds may not be included in the government's appropriation.</p>	<b>Substantial</b>	<p>Project funds will be segregated from DoE operational funds and hence separately monitored. The procurement plan will provide the basis for the budget. Bank FM staff will work closely with DoE and the project accountant to establish a detailed work plan and associated budget. Reporting will require budget and actual comparisons.</p> <p>The Department of Planning will be included in discussions during the preparation stage of the project.</p>	<b>Moderate</b>	
<b>2 Accounting</b>				
<p>2.1 Capacity of FM staff</p> <p>While DoE staff have some experience with donor funding and the accounting department generally have appropriately qualified staff however there is a risk due to lack of resources available to be dedicated to the project and experience with World Bank procedures.</p>	<b>Substantial</b>	<p>(1) A qualified accountant will be hired and be based in DoE. S/He will be in charge of overall Project financial management and disbursement.</p> <p>(2) A short term Financial Management Advisor will be employed to set up the financial management systems.</p> <p>(3) Frequent FM supervision during the first year of the project.</p>	<b>Moderate</b>	
<p>2.2 Accounting Systems</p> <p>While DoE uses PGAS, the PNG government accounting system, currently this will only provide a one line project report and hence will be inadequate for Bank reporting requirements.</p>	<b>Substantial</b>	<p>(1) A computer software package or spreadsheet will be used to record project funds.</p> <p>(2) A short term Financial Management Advisor will be employed to set up the project management systems.</p>	<b>Moderate</b>	

<b>Risk</b>	<b>Risk Rating (H,S,M,L)</b>	<b>Risk Mitigation Measures Incorporated into Project Design</b>	<b>Residual Risk</b>	<b>Condition of Negotiation, Board, Effectiveness (Y/N)</b>
<p><b>3 Internal Controls</b></p> <p>DoE has an acceptable procedure for internal controls underpinned by the Public Finance (Management) Act of 1995, as well as published Financial Regulations and Instructions. However, reviews by the Auditor General and Deloitte have previously identified significant issues of non-compliance.</p>	<b>Substantial</b>	A manual will be developed by the short term Financial Management Advisor to document the current internal control processes and the unique requirements for this project.	<b>Moderate</b>	
<p><b>4 Funds Flow</b></p> <p>A Designated Account will be required for project funds. This will require obtaining a Trust Instrument from Treasury. Funds will then flow directly from the WB to the DA. There is a risk, based on other WB projects, that there could be delays in obtaining the Trust Instrument, which could cause delays in the initial flow of funds to the project.</p> <p>Imprest accounts will be established within the Provincial Education Offices for the purchase of related furniture. There is a risk funds from these accounts will not be adequately accounted for.</p> <p>Staff have no experience using the WB disbursement system which could result in errors or delays in the completion of Withdrawal Applications. .</p>	<b>High (due to the use of the imprest system)</b>	<p>DoE staff will be advised on the requirements for the completion of the Trust Instrument.</p> <p>A project accountant will be employed to oversee and monitor the imprest account.</p> <p>A manual will be developed to outline the imprest procedures.</p> <p>Training the relevant staff on the preparation of Withdrawal Applications.</p> <p>Regular FM supervisions to monitor the flow of funds.</p>	<b>Moderate</b>	

<b><i>Risk</i></b>	<b><i>Risk Rating (H,S,M,L)</i></b>	<b><i>Risk Mitigation Measures Incorporated into Project Design</i></b>	<b><i>Residual Risk</i></b>	<b><i>Condition of Negotiation, Board, Effectiveness (Y/N)</i></b>
<p><b>5 Financial Reporting</b></p> <p>The DoE uses PGAS, which will not produce adequate project reports.</p>	<b><i>Moderate</i></b>	<p>Quarterly Interim Financial Reports (IFRs) will be required to monitor financial reporting effectiveness. The format of these will be developed by World Bank FM staff in consultation with DoE staff.</p> <p>Reports will be prepared by the project accountant using either an accounting software pack or spreadsheets.</p>	<b><i>Low</i></b>	
<p><b>6 Auditing</b></p> <p>The Office of Auditor General will conduct the audit of the project funds and there is a risk there may be delays in the completion of the audit reports.</p>	<b><i>Substantial</i></b>	<p>(1) Annual audits must be provided to the Bank within 6 months of the end of the audited financial year.</p> <p>(2) There are ongoing efforts to strengthen AGO and build its capacity under the PFM reform component of the ECP (Enhanced Corporation Program) funded by Australia.</p>	<b><i>Moderate</i></b>	
<b><i>OVERALL CONTROL RISK</i></b>	<b><i>Substantial</i></b>		<b><i>Moderate</i></b>	
<b><i>OVERALL RISK RATING</i></b>	<b><i>Substantial</i></b>		<b><i>Moderate</i></b>	



## **V. Implementing Agency**

11. The project will be implemented by DoE through the CLMU. In recent years there have been a number of initiatives to strengthen DoE's financial management control environment. These have included staffing the accounting department with appropriately qualified people, bringing up to date all the key reconciliations, centralizing of the budget and procurement functions, and strengthening the internal audit function.

12. Approval for all project expenditure will be done by DoE in close collaboration with the CLMU. The day-to-day records will be maintained by the project accountant and the financial reporting will be separate from DoE. The imprest accounts in the provinces will be maintained by DoE staff, which will be overseen by the project accountant.

## **VI. Budgeting**

13. The annual procurement plan will form the basis for the preparation of the program budget. Budget monitoring will be on a component basis. Given the relatively straightforward project design and the technical assistance that will be provided by short term financial management advisor and the project accountant, there are adequate resources for the management of the budget. The National Department of Planning need to be advised to ensure the project is incorporated into the government's appropriation system.

## **VII. Staffing arrangements Accounting System**

14. A project accountant will be hired and will be in charge of overall project financial management and disbursement. He/she will maintain the day to day accounts for the project and oversee the use of the imprest accounts in the provinces. In addition the accountant will prepare the financial reports and prepare the Withdrawal Applications and accompanying documentation.

15. A short term Financial Management Advisor will be employed to set up the financial management systems and develop a manual outlining the procedures for the project, in particular the operation of the imprest accounts. It is envisaged that the imprest accounts will be managed through DoE national staff at a

provincial level and this will be overseen by the project accountant.

16. As the PNG government accounting system (PGAS) will not provide sufficient information to meet the Banks FM disclosure requirements, an accounting software package or spreadsheets will be used to capture the project's financial information.

## VIII Internal Control and Internal Auditing

17. **Internal Control.** DoE's internal control systems have sufficient levels of segregation of duties and controls. The Government's regular financial rules and procedures that apply to ministry operations, stated in Public Finance (Management) Act 1995 will be used in the project. However, previously there have indications based on reviews by the Auditor-General and Deloitte of non-compliance with the internal control systems and hence additional controls are required.

18. In addition to the controls already in place, a manual will be developed which will outline any procedures that vary from GoPNG procedures, as well as the World Bank FM requirements including disbursement and the specific controls for the use of the imprest accounts.

19. It is noted that there is a risk that not all books and education materials will actually be received by schools. This risk is substantially mitigated by the use of a consolidating contractor. Where practicable, it is recommended final payment is not made until the consolidating contractor is in receipt of the materials and has confirmed all items are received and in good condition.

20. **Internal auditing.** The Internal Audit Unit of DoE has no experience in donor funding projects and limited capacity. To enable internal audit reviews of the project internal

controls and provide the opportunity to build capacity within the DoE Internal Audit Unit, a short term internal audit advisor will be engaged about 6 months after disbursement commences to work with the Internal Unit in developing an internal audit plan and conducting an initial internal audit focusing on the imprest system.

## **VIII. Disbursement and Fund Flow Arrangements**

21. The disbursement arrangements will allow the program to use the following methods: (1) advances into and replenishment of the designated account (DA); (2) direct payment from the credit account; and (3) reimbursement. No contracts under the project are expected to be large enough to require direct payments. However, if direct payment is used, this would be subject to the Bank's no objection prior to signature on the contract; it would only be used for large payments or when payments are in currencies that the borrower may have difficulty obtaining. The most commonly used disbursement method will be the advance method using the DAs. The DA will be in kina and the initial authorized allocation is recommended to be [2] million kina.

22. In requesting disbursements into the DA for expenditures, extensive use will be made of a Statement of Expenditure (SOE). The SOE could be used for: (a) goods contracts costing less than \$100,000 equivalent each; (b) service contracts for individual consultants costing less than \$50,000 equivalent each and for firms costing less than \$100,000; (c) training, workshops; and (d) operating costs. Disbursements for services and goods exceeding the foregoing limits would be made in accordance with respective procurement guidelines and provisions in the Financing Agreement against submission of full documentation and signed contracts.

23. Incremental Operating Costs: These are the reasonable and necessary incremental expenses incurred on account of Project implementation, support and management, which would not have been incurred absent the Project. These costs could include communications, utilities, stationary, transportation costs, and accommodation and travel allowances of Project staff, but excluding salaries of the Recipient's civil servants.

24. Although there are no country financing parameters established in PNG the Loans and Assistance (International Agencies) Act, Chapter No. 132 of the Revised Laws of Papua New Guinea (the "Act"), through its Agreement with the Association, would mean that any persons, income, matter or thing that is directly engaged in and directly forms part of this Agreement with the Association, would be exempt from any tax, duty, or imposition under the revenue laws administered by the Commissioner General of the Internal Revenue Commission of PNG.

25. Before the Designated can be opened, the signing of a Trust Instrument is required to enable the DoE open the account. The Designated Account will be opened in a commercial bank acceptable to the Bank. All Withdrawal Applications will be prepared by the project accountant and then submitted to the Department of Treasury for final approval before submission to the Bank's Loans Department.

26. It is envisaged the funds flow arrangements for this project will partially mirror the Education Capacity Building Program (ECBP) funded through AusAID, which has gone some way to integrating its funds flow into the DoE system. The imprest accounts used in the Provincial Education Offices will also be based on the ECBP model. Thus while there will be a designated account, it will be integrated into PGAS which will be maintained by DoE staff.

As PGAS will only provide one account code for the project, information will then be downloaded into either an accounting software package or spreadsheets. The documentation used in the generation of payments will be through the Integrated Local Purchase Order and approvals will be done by DoE staff. The project accountant will oversee this process providing quality assurance and maintain the relevant records on the project's accounting software.

27. The imprest system will operate through the provinces having subsidiary accounts that are linked to the main account held at the national level. Hence only one trust deed is needed to take care of the national imprest account and the provincial subsidiary accounts. Initially an advance will be made based on submission from the Provincial Education Office (PEO) outlining the intended purpose for the expenditure. Future advances will only occur after the PEO provides the documentation. Approvals for expenditure in the PEOs will be through the Provincial Education Officers employed by the DoE.

28. The table below indicates the amounts allocated and the percentage to be financed for funding by IDA. A single disbursement category is proposed. Given GoPNG and other donor contributions to the UBE program, the project is expected to finance project expenditures at 100%.

**Table 2: Disbursement Categories**

<b>Category</b>	<b>Amount of the FTI Grant in USD</b>	<b>Percentage of Expenditures to be Financed (exclusive of Taxes)</b>
Goods, Training, Consultant Services, Incremental Operating Costs	19,200,000	100%
Total Amount	19,200,000	

**IX. Reporting and Monitoring**

29. DoE will be required to provide interim un-audited quarterly financial reports (IFRs) as part of its quarterly financial reporting. These reports should be received by the Bank within 45 days of the end of each quarterly reporting period. As these reports are to be used as a management tool, they should report program progress on a component basis with adequate description, explanation and analysis of variances between actual and budget. In addition, the IFRs will include an imprest summary by province on the total amount advanced, total amount for which documentation has been received and the current outstanding advance. A consolidation of such reports at the end of the fiscal year may form the basis of annual financial statements which will be subject to audit. The format and additional information for these reports will be determined based on discussions between DoE and the Bank's Financial Management Specialist before negotiations.

**X. External Audit**

30. As per the Public Finance (Management) Act 1995, the AGO is responsible for auditing all Government organizations, including local authorities, public corporations and donor funds. The program financial statements will be audited under the supervision of the Office of

the Auditor General, which is an independent auditor acceptable to IDA.

31. The audit will adhere to International Standards on Auditing (IFAC/INTOSAI pronouncements) and the report will be submitted within six months after the end of the financial year. In addition, the auditors will provide a detailed management letter containing their assessment of the internal controls, accounting system, and compliance with financial covenants in the Financing Agreement.

## **XI. Financial Management Action Plan**

32. This action plan indicates the actions to be taken for DoE to strengthen its financial management system and the dates that they will be completed.

**Table 3: Action plan to strengthen Financial Management**

	<b>Action</b>	<b>Date due by</b>	<b>Responsible</b>
1	Prepare formats of unaudited IFRs that will be used for the project and make them consistent with IDA formats	By negotiations	DoE, WB
2	Appoint a short term FM Specialist	Before Effectiveness	DoE
3	Appoint a full time qualified accountant	Before Effectiveness	DoE
4	Choose and implement accounting software	Three months after first disbursement	DoE
5	Appoint a short term internal auditor advisor	Six months after first disbursement.	DoE
6	IFRs submitted to IDA	45 days after the end of the required period	DoE
7	Audit of Project Financial Statements	Within 6 months after the end of fiscal year	DoE

**XII. Supervision**

33. The financial management supervision will be carried out by the Financial Management Specialist (FMS) at least three times in the first year and will include at least one review in a province to review the imprest account. The frequency after that will be determined by the findings from these supervisions. The initial supervision will include a review of the implementation progress of agreed action plans noted above. The FMS will also:

- Review the quarterly IFRs as they are submitted; and,
- Review the annual audit reports and management letters from the external auditors and follow-up on material accountability issues by engaging with the TTL, DoE, and project staff.



## Annex 8: Procurement Arrangements

### PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT

#### A. General

1. Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004, revised October 2006 and May 2010; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, revised October 2006 and May 2010, as well as the provisions stipulated in the Financing Agreement. The procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and the time frame for contracting will be agreed between DoE and IDA and set out in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

2. Procurement of Works: No civil works are envisioned to be financed under this project.

3. Procurement of Goods: Goods procured under this project will include: books, educational materials and other pedagogic materials, equipment, materials and supplies. Furniture, mostly in the form of book shelves, may be procured for schools. The following procurement methods will be allowed:

**International Competitive Bidding (ICB):** will be followed to procure packages valued at \$200,000 and above. Only procurement of books is likely to fall into this category. IDA and DoE will agree on adaptation of an ICB document for book development that has been used in other countries in the East Asia Region.

**National Competitive Bidding (NCB):** packages of an estimated value below \$ 200,000 will be procured by this method. Bidding Documents will be agreed with IDA, following the provisions for NCB as stated in the CPAR of June 2006.

**Shopping:** This method will be used for contracts valued at \$50,000 or below. Comparisons will be made from of at least 3 quotations from qualified suppliers in

response to an invitation that clearly states quantities, specifications and delivery schedules. Contract form shall be acceptable to IDA.

**Direct Contracting:** This method may be used for proprietary software with prior agreement with IDA regardless of contract value.

**4. Selection of Consultants:** Technical assistance will consist of support for books and materials development, teacher training, books and educational materials policy, management advice, information technology, evaluation and project management. The majority of technical assistance to be engaged under the project is likely to be individual consultants. The following selection method are applicable under the project:

**Quality Cost Based Selection** will be followed for assignments as stated in the procurement plan.

**Quality Based Selection** will be followed for specialized assignments for consultant services.

**Least Cost Selection** method may be used for auditing services.

**Selection Based on Consultant's Qualifications** will be used for small value assignments (under \$200,000); qualified consulting firms may be selected through the CQS method.

**Individual Consultants** may be hired for policy advice, to assist in project implementation and to provide the required technical assistance. Selection should be based on a comparison of at least three CVs from candidates that have expressed interest and meet the terms of reference and qualification criteria. In addition, with valid justification and with prior IDA concurrence, individual consultants may be selected under single source as per section 3.9 of the Guidelines.

**Short lists composed entirely of national consultants:** Short lists of consultants for services estimated to cost less than \$200,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

**5. Training:** The project will finance all costs associated with training, study tours and workshops required for the project, as per national and provincial training plans to be submitted and reviewed by DoE. DoE staff will be both providers and recipients of training. Contract teachers will also be trained. Training costs will include materials, rental of facilities,

transportation, course fees, as well as travel and subsistence of trainers and trainees.

6. Non-consulting Services: Expenditure for a reading media campaign may be procured under the methods for procurement of goods, as stated above.

7. Operating Costs: Expenditure for operating costs reasonably incurred on account of the project will be allowed, including communications, utilities, supplies, accommodation, transportation and travel allowances for project staff. Leasing costs for rental facilities in the districts for training will also be financed.

## **B. Assessment of the agency's capacity to implement procurement**

8. During appraisal, World Bank procurement staff met with DoE and its procurement unit to assess DoE's capacity to undertake procurement. The overall procurement risk assessment for this project is **high**. This rating is consistent with the Country Procurement Assessment report update of June 2006.

9. The Director Corporate\Production and Distribution Branch of CDAD will be responsible for procuring and distributing all books and learning materials, under the general supervision of DoE's Corporate Services Department. In order to mitigate procurement risk, the hiring of two procurement specialists has been made a condition for effectiveness. One consultant, expected to be a PNG national, will be engaged for a period of 12 month; a second consultant will assist DoE for a period of 2 months at the beginning of the project to facilitate project start up procurement activities. In addition, the World Bank will continue to provide specialist consultant support for book procurement as part of its project supervision. Prior review will also be used in accordance with the procurement plan.

10. Procurement risk is highest in the area of books procurement. To mitigate this risk, a publishing consultant will be engaged who has experience with procurement. This specialist consultant will advise DoE on all procurement under the project's first year. Procurement risks and measures aimed at mitigating these risks are summarized in the table below.

Perceived Risk	Action	Timeframe
<p>Several legal provisions do not conform to WB's policy regarding NCB:</p> <ul style="list-style-type: none"> <li>(i) Insufficient bid preparation time;</li> <li>(ii) Criteria other than price that are not specified in bid documents can be used for bid evaluation;</li> <li>(iii) Contract award may not be made to lowest evaluated qualified and responsive bidder;</li> <li>(iv) price negotiations conducted with "winning" bidders prior to contract signature;</li> <li>(v) No requirement for public notice of contract awards;</li> <li>(vi) Ineffective bid protest mechanism; and</li> <li>(vii) No provisions related to resolving contractual disputes.</li> </ul>	<p>Inclusion of Special Procedures for National Competitive Bidding into the project's Financing Agreement.</p> <p>Provisions to be reflected in bidding documents approved by the WB.</p>	<p>Done.</p> <p>During Implementation</p>

<b>Perceived Risk</b>	<b>Action</b>	<b>Timeframe</b>
<p>Widespread perception of corruption and weak capacity of oversight agencies constraints to carry their mandate. Specific risks:</p> <p>(i) Fragile selection of the tender/evaluation committees and other teams responsible for decision making;</p> <p>(ii) Inadequate preparation of estimates for procurement packages; and</p> <p>(iii) Bid/Proposal evaluation: collusion between tender committee and bidders; delay in evaluation process that would benefit certain bidder(s)/consultant(s); proposals are rejected for reasons unrelated to the capacity of the bidders in carrying out of the contracts/services; False information about the information provided by the bidders.</p>	<p>Implementing agency establish steps of the membership selection process and minimum qualifications for members</p> <p>Implementing agency to prepare detailed estimates for all major contracts</p> <p>Strong verification procedures, particularly in the prior review of packages.</p> <p>Appropriate sanctions against tender committees and others who have failed in their duties or deliberately abused their powers</p>	<p>During Implementation</p> <p>During implementation</p> <p>During implementation</p> <p>During implementation</p>
<p>Project implementation delays as procurement planning is not fully adopted by Implementing Agencies.</p>	<p>Preparation of a procurement plan</p>	<p>Done</p>
<p>Procurement capacity is weak.</p>	<p>Consultants (i.e. two Procurement Consultants and one Publishing Consultant) to assist implementing agency on procurement for a period of time commensurable with the project procurement load</p>	<p>By initial book procurement</p>
<p>Implementation of recent changes in the national procurement regulations</p>	<p>Project preparation Team to Consult with CSTB.</p>	<p>Completed</p>

### **C. Procurement Plan**

11. DoE has developed a Procurement Plan for project implementation which provides the basis for the procurement methods. This plan will be agreed between DoE and the project team prior

to approval of the grant agreement. The Procurement Plan will be updated at least annually or as required in agreement with the project team.

#### **D. Frequency of Procurement Supervision**

12. In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agencies has recommended that procurement supervision shall be carried out twice a year in first two years and then once in the remaining Project period. This includes ex-post-review of contracts (sample of 20%).

#### **F. Details of the Procurement Arrangements Involving Prior Review**

##### **1. Goods, Works, and Non Consulting Services**

13. Goods would include: (i) all contracts awarded on the basis of ICB; (ii) contracts estimated to cost \$100,000 or more awarded on the basis of NCB; and (iii) first three contracts awarded on the basis of Shopping. All other contracts would be subject to post review on a sample basis.

##### **2. Consulting Services**

14. Consultancy Consultant services would involve the prior review of (a) contracts greater than US\$100,000 equivalent for consultant services provided by firms, (b) all contracts selected through SSS; and (c) selected contracts for individual consultants (on an exceptional basis and based on a specific request from the TTL and indicated in the procurement plan). All other procurement of consultant services would be subject to post review on a sample basis.

15. All the prior review contracts would be stated in the Procurement Plan.

### **Details of the Procurement Arrangements involving international competition**

List of contract packages which would be procured following ICB:

<b>Ref. No.</b>	<b>Contract (Description)</b>	<b>Est. Cost (US\$m)</b>	<b>Procurement Method</b>	<b>Review by Bank (Prior/Post)Expected Bid-Opening Date</b>
B1	English Language books for Primary Schools	10.40	ICB	Prior April 2011
B2	Elementary Literacy Materials	1.6	ICB	Prior April 2011

List of consulting assignments with short-list of international firms: None

## **Annex 9: Economic and Financial Analysis**

### **PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

#### **I. CONTEXT**

1. Table 1 presents key economic indicators for Papua New Guinea. This country is classified by the World Bank as a lower middle income country and with a GDP per capita of 1,253 (current USD) slightly above Cameroon (1,226) and slightly below the Solomon Islands (1,263). The industrial sector excluding manufacturing is the largest contributor to GDP, followed by agriculture and services, although agriculture accounts for 72.3 percent of employment. According to the latest Barro-Lee dataset, the average number of years of schooling for adults is 4.76 years.

**Table 1. Key Economic Indicators**

	1960	1970	1980	1990	2000	2008
GDP (billions current USD)						8.24
GDP per capita						1,252.73
GDP per capita growth rate (annual)						4.05
GDP per capita (2000 USD)	402.34	636.21	650.08	609.04	653.60	675.76
Gross Fixed Capital Formation (% of GDP)	13.8	51.9	24.8	25.4	20.4	
Percent of GDP by sector						
Agriculture	38.9*	30	31	29.9	34	30.3
Non-manufacturing industry			22.3	20.8	32.2	34.4
Manufacturing			9.5	7.4	7.2	7.3
Services			36.1	36.6	21.7	24.1
Percent of Labour Force by sector						
Agriculture					72.3	
Industry (incl. manufacturing)					3.6	
Services					22.7	
Average years of schooling		1.33	2.17	3.23	4.14	4.76**

Source: World Bank World Development Indicators and Global Development Finance Databases; World Bank EdStats; UNESCO; Barro-Lee 2010. \* Data from 1961; \*\* Data from 2010 estimate.

2. Table 2 presents key data for the education sector in Papua New Guinea. In 2008 (the latest available data), gross intake into the first year of elementary school (elementary prep) was quite high at 98.7 percent; however, due to low progression rates throughout primary the gross enrolment rate of the last year of primary was only 49.1 percent and only 7.6 percent for the final year of secondary. 59.3 percent of grade 8 students continued on to lower secondary and only 38.5 percent of grade 10 students progressed to upper secondary. Total expenditure by the Government of Papua New Guinea on the education system was 964,590,000 Kina which translates to 741.98 Kina per student. However, these figures exclude spending by provincial and district governments, as well as private expenditure which is higher for secondary students due to tuitions (see World Bank 2004).



**Table 2. Key education sector data**

Participation		2004	2005	2006	2007	2008				
Gross enrolment rate into elementary prep		67.2	69.3	77.9	79.8	98.7				
Gross enrolment rate into primary at grade 3		76.9	81.6	75.6	77.0	82.7				
Gross enrolment rate final year of primary		39.2	43.0	42.6	45.3	49.1				
Gross enrolment rate final year of secondary		6.0	7.6	6.6	7.1	7.6				
Government of PNG Education Funding				2007	2008	2009				
Total Expenditure (000 Kinas)				726,650	754,173	964,590				
Total Number of Students				1,057,961	1,230,944	1,300,018				
Total Expenditure per Student (Kinas)				686.84	612.68	741.98				
Primary and Elementary Enrolment		Prep	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Elementary 2008		176,951	134,205	111,120						
Primary 2008			51,367	47,521	136,592	117,548	108,441	96,383	84,627	73,285
2003 to 2007 Average Progression Rate		133.6	94.6	87.2	94.5	91.9	90.8	85.0	91.9	59.3
Secondary Enrolment		Grade 9	Grade 10	Grade 11	Grade 12					
Secondary 2008		38,361	32,896	11,725	9,922					
2003 to 2007 Average Progression Rate		88.0	38.5	96.7						

Source: Department of Education, PNG

3. Education is central to PNG's 2005 - 2010 Medium Term Development Strategy. Human resource development is among the strategy's three strategic priorities and basic education is listed as one of the seven pro-poor expenditure priorities. However, education interventions are needed in order to make rapid progress toward achieving the MDG goal of universal basic education by 2015 (ADB, AUSAID, WB 2007). The WBG's Country Assistance Strategy is closely aligned with the government's strategy.

4. The primary purpose of this investment is to improve reading skills for elementary and primary school students in Papua New Guinea. This will be achieved by creating classroom libraries consisting of books and other reading materials. Books will be primarily in English and supplied to primary school classrooms where English is the language of instruction, and reading materials adaptable to local vernacular will be provided to elementary school classrooms where the local vernacular is the language of instruction. Proper use of books and reading materials are crucial to effectiveness of this investment, and teacher training will be provided. Other components of

this investment include an Early Grade Reading Assessment to be conducted in each province, as well as capacity building for managing school subsidies and procurement. Table 3 presents the estimated project costs for each activity.

**Table 3. Estimated Project Costs by Component (m USD)**

Improving Reading in Elementary and Primary Schools	12.1
Early Grade Reading Assessment	0.8
Strengthening Systems and Capacity for School Subsidies	0.5
Strengthening Systems and Capacity for Procurement and Financial Management	1.0
Project Management and Evaluation	0.6

## II. ECONOMIC ANALYSIS

5. The purpose of this analysis is to assess: (1) the cost effectiveness of the project; (2) whether its benefits exceed its costs; (3) the equity impact of the project; and (4) its alignment with the country assistance strategy. While this project consists of several parts, the largest part, improving reading in elementary and primary schools, will be the focus of this analysis.

### A. Cost Effectiveness Analysis

6. *Evaluations of interventions similar to this investment have shown positive impacts on early literacy and reading skills.* For example, Elly, Cutting, Mangubhai, and Hugo (1996) review three interventions in Fiji, Singapore, and Sri Lanka. The first, Fiji Book Flood project from 1980 to 1981, provides an interesting example since students there studied in their own vernacular until grade 3 and then subsequently English, as is currently the policy in Papua New Guinea. This intervention exposed year 4 and 5 students in 8 rural schools to an “abundant supply of high interest books;” half of these students used the books in an interactive manner, or under a shared reading method, while the other half used them individual, under a silent reading method. Year 4 students exposed to the books exhibited an

increase in reading performance equivalent to 15 months while those in the control group exhibited an increase of only 6.5 months. Year 5 students exposed to the books under the shared reading method improved by 15 months; those under the silent reading method improved by 9 months, and those in the control group only by 3 months. Additionally, tests in the second year of the program revealed an effect size for the intervention of 0.76 to 1.18 standard deviations, and in the year 6 external exams, those who were exposed to the books were twice more likely to pass than before. A similar program in Sri Lanka from 1995 to 1996 revealed an increase in scores from pre-test to post-test of 11 percent for year 4 students exposed to books while only 4 percent for the control group; for year 5 students the increase was 9 percent and 3 percent, respectively. Finally, in Singapore in the late 1980s, students exposed to classroom libraries performed better than students in the control group on 53 out of 65 reading tests performed over three years.

7. Time spent reading is crucial to improving literacy and reading skills. Numerous studies have established this link. For example, Anderson, Wilson and Fielding (1988) found that time spent reading was the best predictor for gains in reading achievement between 2nd and 5th grade. Neuman's (1999) randomized study provided economically disadvantaged preschools with books and teacher training and found that the amount of reading increased by students increased and that this improved early reading outcomes as well as later learning outcomes in kindergarten.

8. This investment is cost-effective because alternative feasible interventions cannot guarantee increases in time spent reading which are crucial for achieving this investment's objective of improving early reading and literacy. The only other practical alternative to improving early grade reading skills that may be less expensive to creating classroom libraries would be to build school libraries. The presence

of school libraries has been shown to be positively associated with cognitive achievement; Fuller and Clark (1994) reviewed cognitive production function research and noted that 16 studies found a statistically significant correlation out of 18 studies which included some type of variable on the presence of school libraries. However, these are not causal only correlations. Additionally, school libraries do not guarantee students will actually read. For example, Anderson, Wilson and Fielding (1988) found that on most days outside of school, children spent little time actually reading. What seems to be effective in improving early reading skills is how students interact with the books. Each of the interventions reviewed by Elly et al. (1996) were described as “book floods”, but they all included aspects of teacher training to ensure their students actively used the books and used them effectively. Even differences in how books were used lead to differences in outcomes. In Fiji, for example, year 5 students which followed the shared reading method performed better than those that followed the silent reading method. While the procurement of books may represent the largest cost to this investment, the value of the investment stems from the interaction between students, teachers, and books within the classroom setting: Neuman (1999) concludes that her study (mentioned above) provides “powerful support for the physical proximity of books and the psychological support to child care staff on children’s early literacy development.”

## **B. Cost Benefit Analysis**

*9. The monetized net benefit of the project will hinge primarily on how it affects schooling attainment and the marginal product of schooling.* The link between schooling attainment and the return to schooling has been the subject of hundreds of studies: for example, the private return to primary education on average is 26.6 percent while the social return, which accounts for the expenditure by the

government but excludes external benefits such as reduced crime or increased health, is 18.9 percent (Psacharopoulos and Patrinos 2004). Under the assumption that earnings equal the marginal product of labor for a given level of schooling, the social return to schooling is a measure of its monetized benefit to society excluding the external benefits (Psacharopoulos 1995).

10. Use of classroom libraries should increase progression rates and schooling attainment. A major determinant of dropout rates for young children in low and middle income countries is their ability to succeed at school. For example, in the Demographic Health Survey for Benin 2006, 21 percent of females aged 15 to 25 reported that the reason they stopped school was due to failure; this was second to the 25 percent who were unable to pay school dues and 23 percent who reported that they did not like school. In the Burkina Faso 2003 Demographic and Health Survey, a similar pattern emerges with 20 percent of females reported failure as the reason why they left school (author's calculations). In an analysis of the Egyptian Demographic and Household Survey data, failure at school was listed as a reason for dropping out for 40.8 percent of boys 34.5 percent of girls (Siliman and El-Kogali 2002). Increases in the time spent reading and early reading ability has been linked to future cognitive ability and learning (Cunningham and Stanovich 1998); consequently, this investment is likely to improve student performance in school and decrease dropouts.

11. *Use of classroom libraries should increase the marginal product of schooling.* There is an emerging body of research establishing the link between cognitive ability (typically measured by test scores) and earnings for a given number of years of schooling (Patrinos and Sakellariou 2007; Moll 1998; Glewwe 1996; Murnane et al. 1995). For example, in Green and Riddell's (2001) analysis of earnings and adult literacy in Canada, when the magnitude of literacy skills as

measured by data from the International Adult Literacy Survey is included as an explanatory factor in wage determination, the number of years of schooling is shown to have little or no association to earnings; this suggests that literacy, and cognitive ability in general, is the key determinant of earnings and likely the marginal product of schooling, and not the number of years of schooling. As a result, even if the installation and use of classroom libraries has no effect on the number of years of schooling, it is possible that for a given number of years of schooling, the marginal product of schooling will increase since, as described above, similar interventions have had positive impacts on literacy and reading skills.

12. Estimating accurately an internal rate of return for this project is not possible due to a lack of required data in Papua New Guinea. Ideally, estimates of the effect of this project on both schooling attainment and the marginal product of schooling attainment would be combined with an estimated earnings function (relating years of schooling and experience to gross earnings) in order to estimate the future stream of additional output generated by the project. Combined with estimates of costs, this could then be used to calculate an internal rate of return to measure the profitability of the project. However, the magnitude of the effect of this project on schooling attainment and marginal product of schooling attainment are unknown since these effects from similar projects in other countries have not been evaluated. Additionally, the current lack of recent individual earnings data for Papua New Guinea prevents estimating an earnings function and consequently the current marginal product of schooling.

13. However, the relationship between the internal rate of return and the effect size of the project on schooling attainment, as well as on marginal product of schooling, can be analyzed under various earnings function scenarios. In other words, by adapting various Mincerian

earnings functions from comparator countries to fit the Papua New Guinea context, how the monetized net benefit of the project interacts with its effect on progression rates can be analyzed. This helps reveal the conditions required for this project to have a positive net benefit and the circumstances which will prevent profitability. In order to analyze the relationship between the project's effect on early progression rates and its internal rate of return (and, analogously, for its effect on returns to schooling) for a particular earnings function scenario, five steps are required. First, the earnings function needs to be scaled to fit the Papua New Guinea context. To do this given the current data limitation, the constant is adjusted so that the model predicts GDP per capita using the average years of schooling and experience presented previously. Second, for the next 55 years, the adjusted model is used to predict the total annual earnings of students enrolled in the first year of primary or elementary under the current profile of progression rates. Third, for a given effect of the project on early grade progression rates, the total annual earnings are recalculated using the new profile of progression rates. The difference in earnings each year is the stream of benefits net of opportunity cost produced by the project (which are negative in the short term because of fewer labor market entrants). Forth, the costs of the investment as well as the costs due to the additional enrolments per year are calculated, and subtracted from the stream of benefits producing a stream of net benefits. Finally, an internal rate of return is calculated. In order to estimate the relationship between the project's effect on early grade progression rates and its internal rate of return, this is repeated for a range of effect sizes. A similar process is conducted for estimating the relationship between internal rate of return and effect on marginal product of schooling. Table 4 lists the specific assumptions of this modeling exercise.

**Table 4. Key Modelling Assumptions**

Key Assumptions	Implication
Private rate of return is the marginal product of schooling	understates net benefits to the project
Social cost per student is GoPNG average student expenditure	overstates net benefits since private and provincial costs are not accounted for
Average income is GDP per capita 2008	too high will overstate net benefits
Average years of schooling is 4.76	too high will understate net benefits
Lifespan of books is 3 years	too low will understate net benefits
Children are not productive until age 11	too high will overstate the net benefits
Progression rates of grades 1 to 5 affected positively	may over or understate depending on earnings function

14. *Earnings functions scenarios for this analysis are drawn from two studies with typical returns to schooling, from two studies with atypically low returns to schooling, and from one study of informal sector earnings.* Table 5 lists the studies and the parameters for returns to schooling, experience and experience square. The earnings function estimated for urban, formal sector Papua New Guinea in 1983 to 1985 (Gibson and Fatai 2005) and for Filipino men in 1998 (Schady 2000) exhibit a return to schooling close to the cross country average of 10.8 percent (Psacharopoulos and Patrinos 2004). Ideally, the gross earnings function from a country very similar to Papua New Guinea would be adapted. But countries similar even in single dimensions such as GDP per capita or consisting of many ethno-linguistic groups did not have earnings function estimates. As a result, these two earnings function scenarios were chosen for this analysis as representing typical earnings functions because of the closeness of the return to schooling to the international average, as well as because one is from the country in question and the other is from a country in the region which also consists of islands and isolated regions. In fact, these two earnings functions have almost identical parameters for schooling and experience. To



conduct a sensitivity analysis, earnings functions from two countries with exceptionally low returns to schooling were also included in this analysis: these are Ghana in 1995 (Jones 2001) and the 1992 to 1993 transition period in Vietnam (Moock et al. 2003). Finally, since 83 percent of the population in Papua New Guinea is supported by the informal sector, a recent study of Rwanda's informal study (Lassiblle and Tan 2005) is also included.

**Table 5. Parameters by Semi-Log Earnings Function Scenario**

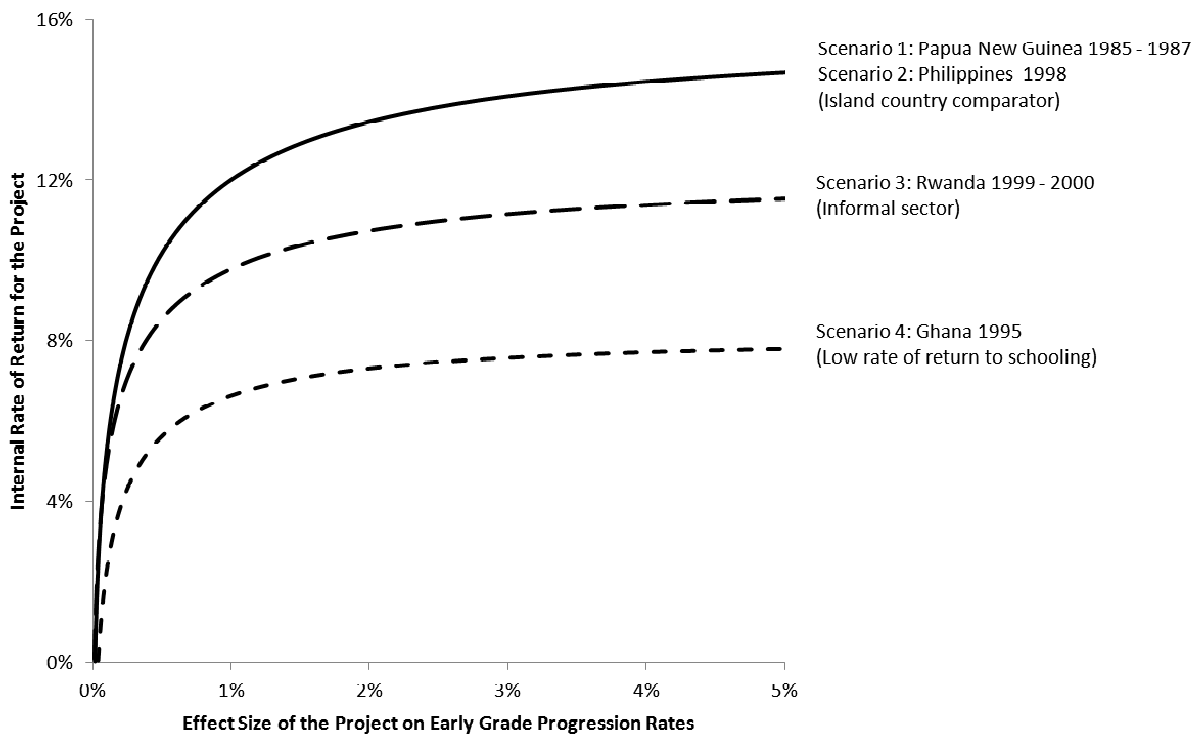
Earnings Scenario	Years of Schooling	Experience	Experience Square	Source
1. Papua New Guinea 1985 - 1987	0.125	0.04	-0.0005	Gibson and Fatai 2005
2. Philippines 1998 (island country example)	0.126	0.043	-0.00056	Schady 2000
3. Rwanda 1999 - 2000 (informal sector example)	0.151	0.101	-0.0001	Lassibille and Tan 2005
4. Ghana 1995 (low return to schooling example)	0.071	0.042	-0.0006	Jones 2001
5. Vietnam 1992 - 1993 (very low return to schooling example)	0.048	0.064	-0.0001	Moock et al. 2003

This table presents the coefficients from log earnings equations from the indicated study.

**15. The relationship between this project's impact on early grade progression rates and its internal rate of return is concave; consequently, even small effects on progression rates will produce a modest internal rate of returns under typical earning scenarios.** This finding is demonstrated in Figure 1 which plots this relationship for each earnings scenario. The marginal effect of early grade progression on the internal rate of return is initially very high and diminishing. For example, a 1 percent increase in progression rates from grades 1 to 5 (e.g. for grade 1: an increase from 94.6 percent to 95.5 percent, etc.) will produce a 12 percent internal rate of return under this earnings function scenario. In fact, a 0.47 percent effect on progression rates will yield a 10 percent internal rate of return. This concavity stems from non-increasing returns to schooling and the fact that increasing the progression rate defers the project's benefits into the future, but does not defer its investment cost. A property of the definition of present value is that each year a payment is deferred into the future at a positive non-increasing growth rate, the discount rate required to

maintain the same present value increases at a diminishing rate. This means that each year labor market entry is deferred (as is the consequence of higher progression rates), the discount rate needed for the present value of future earnings to remain equal to the project cost (in other words, the internal rate of return) increases at a diminishing rate. If returns to schooling were increasing over time or if there were no up-front project investment cost, then the relationship between this project's effect on progression rates and its internal rate of return would not be concave.

**Figure 1. Project's effect on early grade progression rates and its internal rate of return by earnings scenario**



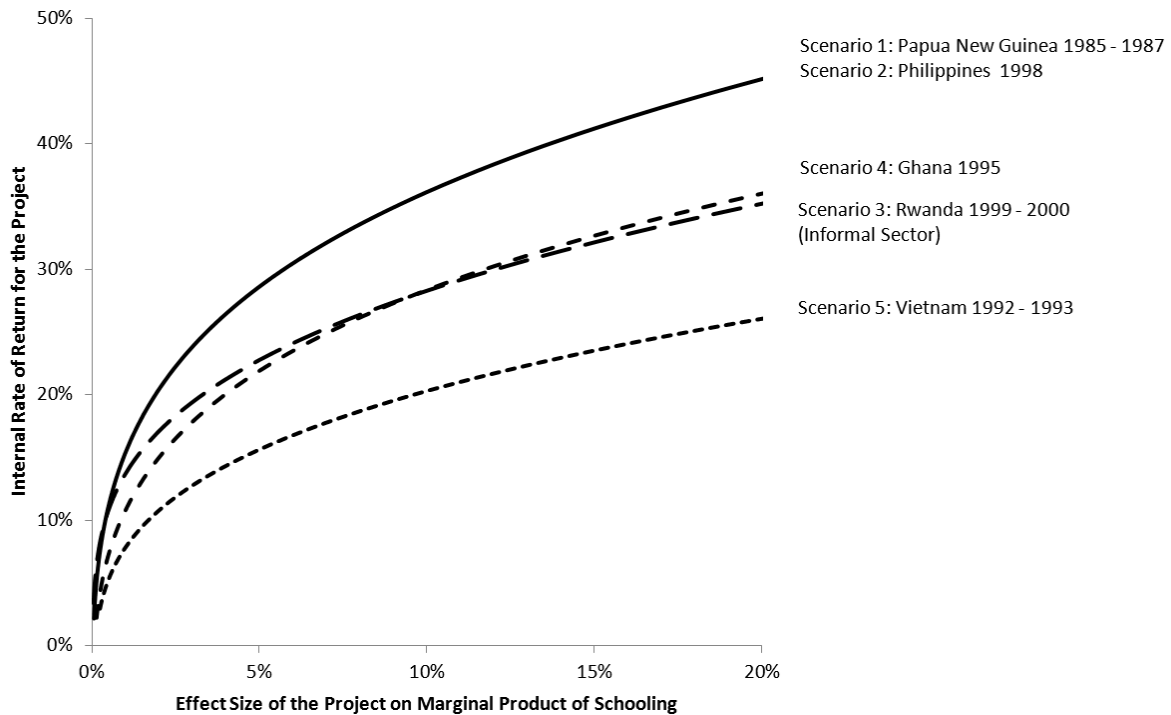
*16. Due to the concavity of the relationship between the project's effect size on progression rates and the internal rate of return, this project will be profitable even at low effect sizes, as long as the gains to going to school net of the opportunity cost are positive. This*

result emerges from the sensitivity analysis conducted by examining this relationship for the atypical earnings function scenarios presented in Figure 1. Under the Ghana earnings function scenario, with a low return schooling at 7.1 percent, the project would still be profitable even with small effect sizes due to the concavity of the relationship. However, under the extreme example of Vietnam, the project would not be profitable under any effect size. This is because in the parameters of the earnings function, the returns to experience exceed that of schooling by a high enough margin so that deferring labor market entry would not be beneficial. As long as the economic rate of return of schooling is positive, or in other words as long as it is productive for Papua New Guinea children to increase their years of schooling even if its earnings function is atypical, then this project will be beneficial at very low effect sizes. The question is whether or not schooling is beneficial in Papua New Guinea. The informal sector example of Rwanda, which is particularly relevant, exhibits the same concavity although lower internal rates of return for each given effect size as compared to the typical earnings function scenario; although the return to schooling in the informal sector of Rwanda is higher compared to that of Papua New Guinea 1983 to 1985 and Filipino males in 1998, the return to experience is much higher. While returns to schooling were shown to be high in Rwanda, other studies of the informal sector have shown varying and lower returns in Africa (see Keswell and Poswell 2004; Kuepie et al. 2009).

17. A very small positive effect on marginal product of schooling will increase the internal rate of return. This occurs since increasing the marginal product of schooling while holding attainment constant will not produce any additional costs either to the government or household. If this investment produces no impact on attainment, then a very small impact on marginal product of schooling is required to offset the cost of the investment; the minimum

effect size for all earnings function scenarios considered here to be profitable is 0.24 percent. Figure 2 displays the relationship between the effect of this project on returns to schooling and the corresponding internal rate of return holding attainment rates constant for each of the various earnings function examples. Similar to the relationship between internal rate of return and years of schooling, the relationship is concave.

**Figure 2. Project’s effect on return to schooling and its internal rate of return by earnings function scenario**



18. In addition to the monetized benefits discussed so far, education has numerous social benefits including improving health outcomes, reducing unemployment, civic participation, and a decrease in crime rates. For example, in theory, education attainment reduces crime rates by increasing wages and thus the opportunity cost of crime. It also changes preferences for risk-taking, and alters the individual’s peer group (see Lochner 2010 for a recent summary of the literature). While these social benefits should be included in the cost benefit analysis of this project, quantifying them is challenging,

especially in Papua New Guinea where data is scarce.

### C. Equity

19. *Ethno*-linguistic, urban-rural and socio-economic inequities generated by this project will depend on the dependence of early grade reading material on language. Since the language of instruction in elementary schools is in the local vernacular according to policy, those elementary students who do not have reading materials in their local vernacular will be unable to benefit fully from the project. However, the creation of reading materials which are independent of language, for example those which are produced by the instructor or at the school, will offset the dependence of reading material on language and help offset this potential inequity.

20. Ethno-linguistic, urban-rural, socio-economic and gender inequities generated by this project will depend on enrolment differences among these sub-populations. Table 4 presents attendance rates for aged 6 to 11 girls and boys in urban and rural areas from a preliminary report of the 2006 Demographic and Household Survey (National Statistical Office 2009)<sup>19</sup>. Gender differences in attendance were relatively low while urban and rural differences in attendance rates are significant; for all genders they were 60.3 percent and 38.6 percent, respectively. Entrance rates probably vary similarly by these sub-populations. Since this project benefits only those who have entered school, this project will benefit urban areas more than rural areas. Additionally, while attendance rates by region were not reported in the DHS report, schooling attainment varied considerably by region. If a similar pattern holds for school entrance rates, the spatial distribution of ethno-linguistic groups in Papua New Guinea implies that entrance rates would differ by ethno-linguistic group and that

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<sup>19</sup> Data from this survey was not available for use for this economic analysis.

consequently some groups would benefit more from the project than others. However, in all cases, this project is not expected to adversely affect specific sub-populations, but rather benefit some more than others.

**Table 6. School Attendance Rates for ages 6 to 11 by Sub-population**

	Females	Males	Total
Urban	58.4	61.9	60.3
Rural	37.8	39.4	38.6
Total	40.0	41.9	41.0

Source: DHS PNG 2006

#### **D. Alignment with the Country Assistance Strategy**

21. As stated, the principle development objective of READ PNG, to improve reading in elementary and secondary schools, is expected to not only improve reading ability but also to (1) it is expected to increase schooling attainment by reducing dropout rates, and (2) it is expected to increase the productivity (and return) for a given number of years of schooling. Reducing dropout rates is crucial to achieving universal basic education, as is improving literacy to human resource development. Consequently, this project is closely aligned with the Medium Term Development Strategy and Country Assistance Strategy.

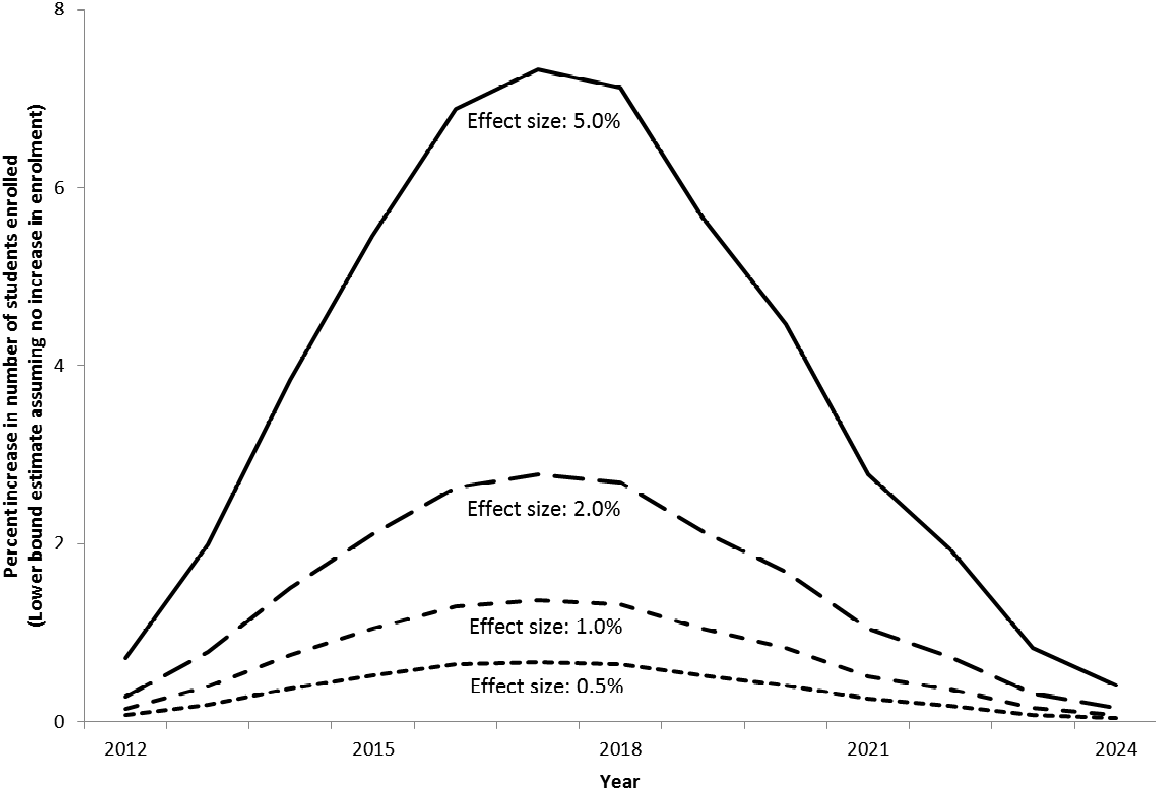
### **III. FINANCIAL ANALYSIS**

22. *This project will trigger few recurrent costs as a direct result of the project.* This project will provide basic classroom libraries. In addition, all books printed under this project will also enter the local market for direct purchases by schools and parents. This will ensure the availability of reading material in the future without imposing direct additional recurrent costs related to book design. Similarly, once teacher training networks are established, material, knowledge and

experiences can be shared using the existing infrastructure and other already established channels of exchange among teachers. Training could be replicated without generating many additional recurrent costs. Finally, the recurrent costs of the Early Grade Reading Assessment will be in the order of \$60,000 per province, on average, every two years. Total recurrent spending requirements for EGRA would be about \$600,000 per year if 10 of PNG's 20 provinces undertake EGRA survey in any given year.

23. Indirect recurrent costs will occur if this project affects progression rates. Figure 3 presents the percent increase in the number of students for different magnitudes of effect on progression rates under the assumptions stated in Table 4. These are lower bound estimates since it is assumed the number of student entering grade 1 does not change over time. For example, if the effect of this project on early grade progression rates were 5 percent, then the number of extra students as a percentage of the total would be highest about 5 years after the project occurs. Recurrent expenditure directly attributable to student enrolment is not available since provincial spending on education is not systematically reported. However, the percent increase in this type of expenditure will be equivalent to the percent increases in enrolment as reported in Figure 3. For example, if total Department of Education expenditure (using 2008 data) was attributable to student enrolment, then an effect size on progression rates of 5 percent would translate to an additional expenditure of 24 million USD at its peak around five years after the project begins. However, given that the government in its Universal Basic Education plan is planning to increase its expenditure by much more, this cost is likely sustainable.

Figure 3. Percent increase in students enrolled per year by project's effect on early grade progression rates





## **Annex 10: Safeguard Policy Issues**

### **PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

#### **Applicability of World Bank safeguards policies**

1. The principal development objective of the proposed READ PNG project is to improve the reading skills of elementary and primary education students. This will be achieved by providing books and training teachers at the elementary and primary levels.
2. Teaching in the vernacular at the elementary level, and thereafter in English, has been a government policy in PNG since 1991. There is wide awareness in the country about this, particularly since the move to teach in the vernacular was a grassroots initiative undertaken by communities in the early 1980s. As such, people are widely aware of the education system in place in PNG. In fact, elementary education is done at a local level, with communities choosing their own teachers and language of instruction, and following DoE guidance as to the educational curriculum.
3. Due to the overwhelming number of languages and local vernaculars in PNG, the fact that some vernacular languages have no orthography, and that some languages do not have existing books available, the project anticipates not being able to provide books in most local languages. The languages chosen will be a product of the books that are submitted by publishers for consideration to be financed for publishing. The books will be evaluated by a technical panel with experience in elementary and primary school materials. The project will ensure the wide dissemination of procurement guidelines in all provinces, so that all interested publishers are able to submit books for consideration. This will help to ensure that existing books in as many languages as possible are considered to be financed for publishing.

4. Nonetheless, all elementary schools will receive reading materials including age appropriate books with blank text for teachers to fill in the vernacular (all primary schools will receive books in English). In this way, all schools will be provided with books that can help children to learn to read in their vernacular tongue at the elementary level, and English thereafter. Elementary and primary schools will also be provided with non-book, language neutral reading support materials, and materials that can be easily adapted to any language. In this way, no child or school will be disadvantaged. Teacher training will be provided in the use of materials, including how to adapt books and reading materials for use in instruction of local vernaculars.

5. Given that the project spans the whole of PNG and that the country is made of a myriad of indigenous groups, the project triggers the OP 4.10 Safeguards Policy (Indigenous Peoples). The incorporation of the IPP into the PAD is most appropriate for this project's design due to the fact that all project beneficiaries are considered indigenous peoples.

## Social Assessment

6. Papua New Guinea is made up of over 600 distinct ethnic groups who speak 860 different languages. The project will supply a single package of literacy learning materials to 17,817 classrooms of the approximately 6,000 existing elementary schools. It will also provide a library of books to each of the approximately 14,000 classrooms of grades 3–6 of lower primary. Each classroom library will consist of approximately 40 titles. In addition, about 860 teachers from 86 districts of PNG's 20 provinces will be trained and supported by peer mentors in how to use reading materials.

7. Given the limited scope of the project (e.g., providing reading materials and delivering teacher training to improve children's reading ability), the fact that the project is only targeting existing schools and existing students, and the broad consultations and analysis undertaken in preparation for the UBE Plan (which is directly relevant to this project), a dedicated Social Assessment was not prepared. The project, instead, builds on this ongoing engagement between DoE and CDAD with provincial and local level schools and the analysis done on the UBE plan. This analysis and consultations outlined the following needs which are the basis of this project:

- a) The need for books in elementary and primary schools;
- b) The need to provide teacher training on how to use and develop reading materials.

8. Elementary schools, which have not received significant materials support from donors, were identified as particularly important during the UBE consultations and during CDAD's dialogue with teachers throughout the country, as they are often the weakest entity in the education system. This is due to the lack of available reading materials in the vernacular and the lack of teacher training on how to develop and use reading materials, and how to bridge

children from the vernacular to English. In response, the project will provide suitable elementary level books with blank text for teachers to fill in the local vernacular so that all schools can have language appropriate materials. This will avoid negative impacts that could have been experienced if some schools had not been provided with books in the local vernacular.

9. Approximately 60 titles together with literacy games, cards, and interactive materials will be selected for the elementary grades Prep, 1 and 2. These will form a literacy package of both vernacular and non-specific language materials for use in classrooms of all three elementary grades. Approximately 40 titles will be selected for each of the primary grades 3-6. The number of copies of each book to be supplied will be determined by the quantity of each book that is deemed adequate to allow teachers to teach early grade reading to groups of students.

10. The key project stakeholders are PNG's elementary and primary school children whose classrooms will be provided with books, and whose teachers will be appropriately trained, giving them an opportunity to improve their reading skills. Teachers are a secondary stakeholder of the project, and they will benefit from the training received and new materials to improve their work. DoE, and CDAD under it, as the main implementers of this project, are also an important stakeholder. Parents are indirect stakeholders, as the project assumes parents want their children who are in school to read better. Lastly, the local publishing industry in PNG is an indirect stakeholder, and the project is actively encouraging the submission of books by local publishers.

#### **Indigenous Peoples Plan - OP 4.10**

11. The project triggers OP 4.10 on Indigenous Peoples since the project targets the whole country which is made up of over 600 distinct

indigenous groups. The project has integrated the following aspects of an IP Plan in design and preparation:

- a) **Free, prior and informed consultation leading to broad community support (during preparation):** Specific consultations relating to this project were not held because a broader engagement and consultative process is already in place and ongoing by the GoPNG. The DoE, and the CDAD under this Department, have a proven record of stakeholder consultation. Regional Consultative Meetings on education topics take place every year with provincial level stakeholders. The PNG Universal Basic Education Plan, which this project supports, was presented and discussed by DoE in all of PNG's 20 provinces throughout 2009. DoE also organizes an annual one week conference with provincial level stakeholders. READ PNG was presented and discussed at the 2010 conference in June. NDoE also consults frequently with a reference group of national stakeholders and donors, which includes NGOs and church groups. In preparation of this project the World Bank team consulted with a range of donors, NGOs and the Council of Churches on the objectives and structure of the project, and will continue to engage these stakeholders throughout project implementation. Given this broad engagement, the project builds on the work already undertaken and responds to one of the priorities outlined in PNG's UBE Plan, to improve reading skills in the early grades. The project is also responsive to teacher's concerns, as expressed to CDAD, of the lack of reading materials and the lack of appropriate teacher training.
- b) **Free, prior and informed consultation leading to broad community support (during implementation):** During project implementation CDAD will be the focal agency in touch with schools throughout the country to disseminate information about the project and inform stakeholders when reading materials will be distributed and teaching training delivered. This process will be undertaken in all of PNG's provinces. The project also has in place a dissemination plan to ensure that all publishers in PNG are aware of the project and can submit their books for consideration. This dissemination plan will be implemented by CDAD in partnership with church and NGO organizations that will help to disseminate information in all of PNG's provinces. Calls for books submissions will also be disseminated through radio and available in PNG's three official languages, Tok Pisin, Tok Motu and English. Training will be provided to publishers on the World Bank's procurement guidelines. In addition, the project will provide funding for an information campaign that will publicize the investment being made so elementary and primary schools are fully aware of what they should be receiving under the project. Moreover, the ongoing training of teachers through the peer mentor system will provide a valuable opportunity for continuous engagement with project stakeholders. The implementation of the EGRA surveys will also provide an opportunity to have continuous engagement with stakeholders and closely review the outcome of the project's activities. Lastly, the ongoing engagement between DoE, CDAD and schools at the provincial level will provide for a venue of consultations throughout the implementation of this project.
- c) **Measures to ensure social and economic benefits:** The project's main objective is to ensure social benefits throughout PNG by helping children improve their reading skills. This is challenging in a country where 860 languages are spoken. But the project seeks to

ensure that all children enrolled and attending schools can have access to reading books. DoE is aware of the difficulty of providing books in all the vernacular languages in a quick and efficient manner. Some languages do not have orthography and the PNG tradition of teaching orally, rather than through reading, is strong and means that not all the languages have books available, particularly at the elementary reading level. Due to these difficulties, the project is not financing the translation of books, only the printing of books in the languages that are available (although publishers will be encouraged to republish books in vernacular languages). However, the project will attempt to ensure that no school or child is disadvantaged, and thus will provide all schools with reading books that can be easily adapted to the vernacular language, as well as non-language specific reading materials. The project will also ensure benefits to elementary and primary school teachers by providing training in the use of these materials. This will be particularly helpful to elementary school teachers, as they are particularly disadvantaged and lack appropriate training in how to teach in the vernacular and how to adapt reading materials. Finally, the project is making significant efforts to ensure that stakeholders in PNG are informed of the project and can submit their books for consideration. This will help to ensure that as many books and in as many languages as possible are submitted for consideration by the expert panel.

- d) **Grievance system:** The mechanisms to be put in place under this project for the provision of training to teachers and the delivery of books, will act as a grievance system for stakeholders to voice any concerns or issues they may have. During the information dissemination stage of this project—when stakeholders will be informed about the provision of books to schools—stakeholders will be informed of the grievance mechanism in place in their province. This will provide stakeholders with a venue to resolve any grievances that may arise during project implementation. CDAD will be ultimately responsible to ensure that all grievances are resolved in a timely manner.

**Annex 11: Project Preparation and Supervision**  
**PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

	Planned	Actual
PCN review	05/27/10	05/27/10
Initial PID to PIC	06/09/10	06/09/10
Initial ISDS to PIC	06/09/10	06/09/10
Appraisal	08/30/10	09/02/10
Negotiations	11/08/10	01/19/11
Board/RVP approval	02/25/11	02/24/11
Planned date of effectiveness	04/01/11	
Planned date of mid-term review	09/08/12	
Planned closing date	06/30/14	

Key institutions responsible for preparation of the project:

National Department of Education

Bank staff and consultants who worked on the project included:

Name	Title	Unit
James Stevens	TTL/Sr. Operations Officer	EASHD
Stephen Close	HD Officer	EASHD
Myrna Machuca-Sierra	Education Specialist	EASHD
Ellen Kulumbu	HD Officer	EASHH
Sabrina Terry	Program Assistant	EASHD
Julian Watson	Publishing Consultant	EASHD
Stephen Hartung	Fin. Management Specialist	EAPFM
Evelyn Villatoro	Sr. Procurement Specialist	EAPPR
Nanda Gasparini	Social Specialist	EASNS
Kevin McDonald	Economist	HDNED
Hanneke Van Tilburg	Senior Counsel	LEGES

## Annex 12: Reference Documents

### PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT

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**Annex 13: Statement of Loans and Credits**  
**PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT**

Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P110959	2010	PNG Productive Partnerships in Agr.	0.00	25.00	0.00	0.00	0.00	24.74	0.00	0.00
P079140	2008	PNG-Smallholder Agriculture Development	0.00	27.50	0.00	0.00	0.00	25.04	2.61	0.00
P102396	2008	PG Mining Sector Inst Strengthening TA 2	0.00	17.00	0.00	0.00	0.00	14.29	-1.11	0.00
P004397	2002	PG-ROAD MAINT. & REHAB	40.00	37.31	0.00	0.00	0.03	19.17	-18.22	17.32
Total:			40.00	106.81	0.00	0.00	0.03	83.24	- 16.72	17.32

**PAPUA NEW GUINEA**  
**STATEMENT OF IFC's**  
**Held and Disbursed Portfolio**  
**In Millions of US Dollars**

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2005	PNG MicroFinance	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
Total portfolio:		0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00

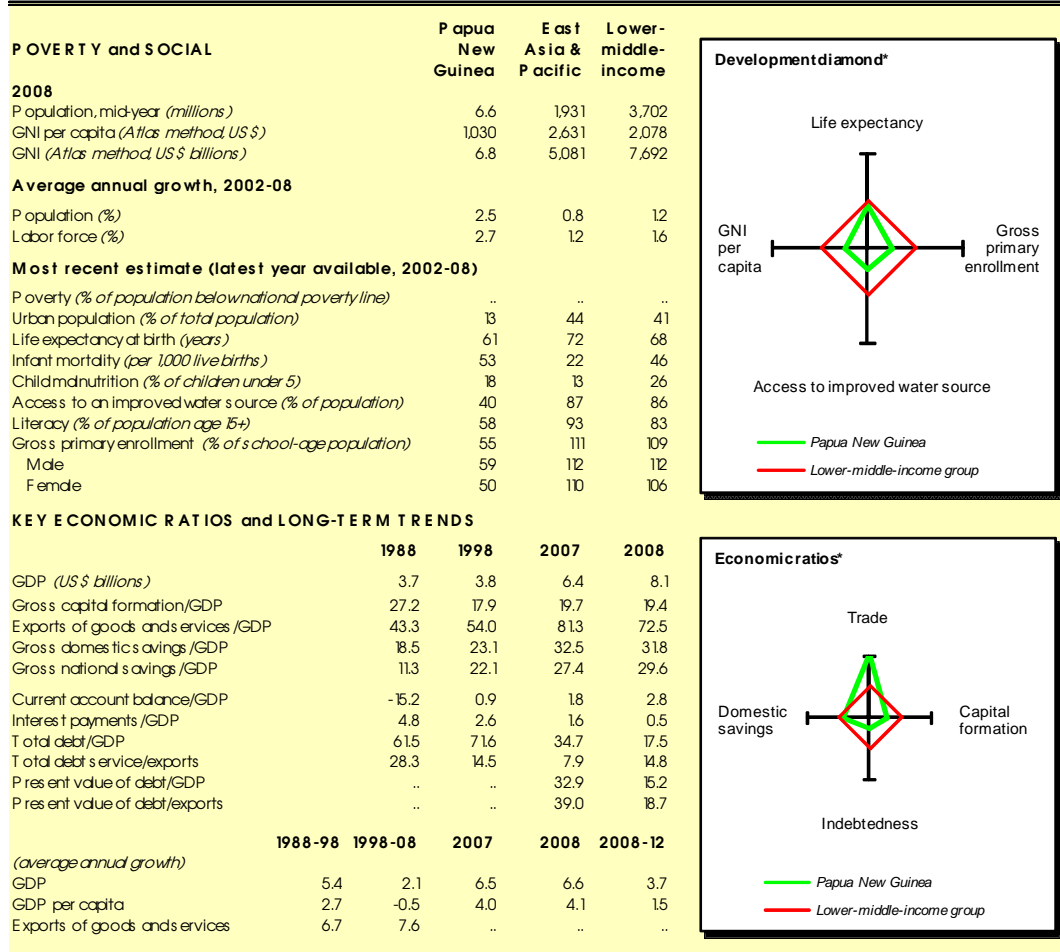
Approvals Pending Commitment					
FY Approval	Company	Loan	Equity	Quasi	Partic.
2005	PNG MicroFinance	0.00	0.00	0.00	0.00
Total pending commitment:		0.00	0.00	0.00	0.00

## Annex 14: Country at a Glance

### PAPUA NEW GUINEA: READING EDUCATION (READ PNG) PROJECT

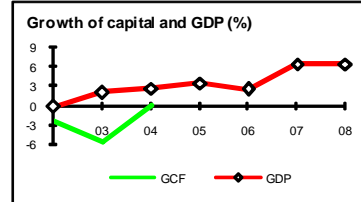
## Papua New Guinea at a glance

12/9/09



### STRUCTURE of the ECONOMY

	1988	1998	2007	2008
<i>(% of GDP)</i>				
Agriculture	32.0	35.5	36.0	33.6
Industry	37.5	33.0	44.8	47.9
Manufacturing	10.2	9.7	6.1	5.6
Services	30.5	31.5	19.2	18.4
Household final consumption expenditure	60.6	58.8	56.1	58.2
General government final consumption expenditure	20.9	18.1	11.4	10.0
Imports of goods and services	51.9	48.8	68.4	60.1



	1988-98	1998-08	2007	2008
<i>(average annual growth)</i>				
Agriculture	4.8	1.9	3.8	4.8
Industry	8.5	2.8	7.6	7.4
Manufacturing	4.7	1.3	6.0	3.6
Services	2.1	1.5	10.1	8.4
Household final consumption expenditure	3.4	-6.1	..	..
General government final consumption expenditure	3.0	1.9	..	..
Gross capital formation	1.6	5.7	..	..
Imports of goods and services	0.7	5.5	..	..



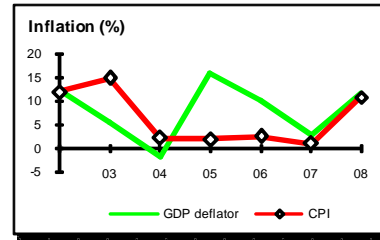
Note: 2008 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

\* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

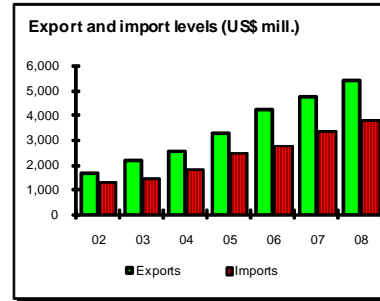
## PRICES and GOVERNMENT FINANCE

	1988	1998	2007	2008
<b>Domestic prices</b>				
<i>(% change)</i>				
Consumer prices	5.4	13.6	0.9	10.8
Implicit GDP deflator	7.9	14.5	2.6	11.6
<b>Government finance</b>				
<i>(% of GDP, includes current grants)</i>				
Current revenue	28.5	29.1	37.3	32.6
Current budget balance	3.0	4.9	18.0	14.3
Overall surplus/deficit	..	-1.7	8.2	4.4



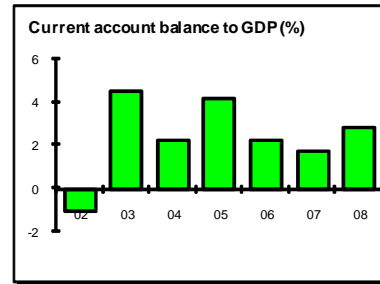
## TRADE

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Total exports (fob)	1472	1861	4,750	5,397
Gold	467	596	1,254	1,584
Copper	516	192	1,424	1,315
Manufactures	..	..	100	125
Total imports (cif)	1,589	1,425	3,331	3,794
Food	256	166	..	..
Fuel and energy	171	142	..	..
Capital goods	516	519	..	..
Export price index (2000=100)	..	101	213	241
Import price index (2000=100)	..	106	136	152
Terms of trade (2000=100)	..	95	156	159



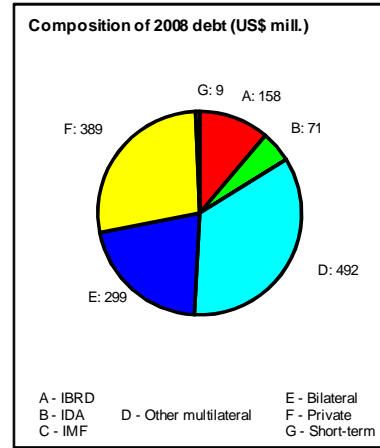
## BALANCE of PAYMENTS

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Exports of goods and services	1,598	2,126	5,055	5,711
Imports of goods and services	1,820	2,053	4,692	5,223
Resource balance	-222	74	363	488
Net income	-208	-266	-601	-578
Net current transfers	-125	228	350	318
Current account balance	-554	35	112	228
Financing items (net)	613	-224	545	-222
Changes in net reserves	-59	188	-657	-5
<b>Memo:</b>				
Reserves including gold (US\$ millions)	396	187	2,087	2,745
Conversion rate (DEC, local/US\$)	0.9	2.1	2.9	2.7



## EXTERNAL DEBT and RESOURCE FLOWS

	1988	1998	2007	2008
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	2,250	2,712	2,215	1,418
IBRD	162	267	183	158
IDA	114	100	73	71
Total debt service	498	312	424	974
IBRD	24	45	93	38
IDA	1	3	4	4
Composition of net resource flows				
Official grants	307	208	175	215
Official creditors	37	3	-127	-131
Private creditors	47	23	103	149
Foreign direct investment (net inflows)	153	110	96	-30
Portfolio equity (net inflows)	0	0	0	0
World Bank program				
Commitments	0	5	37	28
Disbursements	36	14	12	6
Principal repayments	12	31	81	33
Net flows	24	-18	-70	-27
Interest payments	13	17	16	9
Net transfers	11	-35	-86	-37



Note: This table was produced from the Development Economics LDB database.

12/9/09



