



Report and Recommendation of the President to the Board of Directors

Project Number: 36513
November 2007

Proposed Asian Development Fund Grant Independent State of Samoa: SchoolNet and Community Access Project

CURRENCY EQUIVALENTS
(as of 31 October 2007)

Currency unit	–	tala (ST)
ST1.00	=	\$0.395
\$1.00	=	ST2.530

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
AMU	–	Assets Management Unit (MESC)
AusAID	–	Australian Agency for International Development
CAP	–	Community Access Program
CEO	–	chief executive officer
CMAD	–	Curriculum Materials and Assessment Division
EMIS	–	education management information system
ESP II	–	Education Sector Project II
ICT	–	information and communications technology
IT	–	information technology
JICA	–	Japan International Cooperation Agency
K–12	–	kindergarten to grade 12
LAN	–	local area network
MESC	–	Ministry of Education, Sports and Culture
MOF	–	Ministry of Finance
MTEF	–	medium-term expenditure framework
M&E	–	monitoring and evaluation
NCB	–	national competitive bidding
NZAID	–	New Zealand Agency for International Development
PPRD	–	Policy, Planning and Research Division
SDS	–	Samoa Development Strategy
SOD	–	School Operations Division
SOE	–	statement of expenditure
SPP	–	Strategic Policies and Plan
SWAp	–	sector-wide approach
UNDP	–	United Nations Development Programme
WAN	–	wide area network

NOTE

- (i) The fiscal year (FY) of the Government ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends, e.g. FY 2007 ends on 30 June 2007.
- (ii) In this report, “\$” refers to US dollars.

Vice President	C. Lawrence Greenwood, Jr., Operations 2
Director General	P. Erquiaga, Pacific Department (PARD)
Director	I. Bhushan, Pacific Operations Division, PARD
Team leader	K. Chowdhury, Education Specialist, PARD
Team members	L. Bodda, Senior Energy Specialist, PARD
	E. Brotoisworo, Senior Safeguards Specialist, PARD
	K.M. Emzita, Senior Counsel, Office of the General Counsel
	F. Garcia, Principal Country Specialist, South Pacific Subregional Office, PARD
	T. Mehretab, Operations Assistant, PARD
	B. Reid, Financial Management Specialist, PARD
	A. Witheford, Governance Specialist, PARD

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GRANT AND PROJECT SUMMARY

Recipient	Independent State of Samoa
Classification	Targeting classification: Targeted intervention (Education Millennium Development Goal) Sector: Education Subsector: Senior secondary general education Themes: Inclusive social development, capacity development Subthemes: Human development, organizational development
Environment Assessment	Category C: Environmental implications were reviewed, and adverse environmental impacts are unlikely.
Project Description	<p>The SchoolNet and Community Access Project (the Project) will help the Government of Samoa (the Government) develop the capacity of relevant divisions of the Ministry of Education, Sports, and Culture (MESC), as well as of teachers and students from all government and mission secondary schools, in information and communications technology (ICT) competencies. The Project will complement and expand Education Sector Project II 2006–2012 (ESP II) activities to include ICT competencies and best practices for developing and using e-learning resources in classroom teaching and learning processes. This will enhance the quality of education and cost-effectively improve student learning outcomes in six academic subjects aligned to the ESP II priorities of mathematics and science. It will also support the Government's efforts to improve the overall efficiency of the education sector and help to develop management models and partnership arrangements to ensure the sustainability of the project outcomes. The Project will foster the use of the Internet, where possible, and communication among schools domestically and internationally. The Government, through its Samoa Development Strategy 2005–2007 (SDS) and Strategic Policies and Plan July 2006–June 2015 (SPP), is fully committed to achieving efficiency and quality goals in education and aligning the education sector with the national ICT strategy.</p> <p>The Project will have four main components: (i) improving the quality of teaching and learning in secondary schools; (ii) improving access to education through ICT; (iii) establishing the Community Access Program and developing its partnerships; and (iv) strengthening education management and coordination, including improving analyses of economic efficiency, equity, and sustainability.</p> <p>The Project will be implemented in two stages. This will allow the Government to assess the impact of SchoolNet and ICT on learning outcomes and postsecondary employment, and will contribute to strengthening the research and evaluation capacity of MESC.</p>

Rationale

Education remains a priority of the SDS. The sector has shown significant achievements, including an adult literacy rate of 98.7%, the highest in the Pacific region. About 90% of grade 8 completers have access to secondary education. Gender disparities have been eliminated at the primary level and are declining at the secondary level.

Despite many achievements in education, however, the quality and efficiency of education remain disappointing. Variations in student's learning achievements and opportunities for learning remain significant, particularly between urban and rural areas. In 2006, the net enrollment rate at the primary level was 69%, while the gross enrollment rate was 97%. More than 25% of students enrolled in primary education did not complete the 8-year program. The same year, the dropout rate was 7% for grades 1–2, 5% for grade 8, 18% for grades 10–11, 3% for grade 12, and as high as 41% for grade 13. Repetition rates at grades 1, 8, 11, 12, and 13 are high and largely changed since 1997. In 2006, 88% of primary students progressed to lower secondary level and 91% to upper secondary level, but only about 53% of 12th graders advanced to grade 13.

Many of the issues in the education sector will be addressed under the ongoing ESP II. However, ESP II has limited emphasis on using ICT as a tool to enhance student learning outcomes or to manage the education system. The Project will link with ESP II to complement activities under it and will be implemented within the ESP II structure to address these issues. MESC's capacity will be strengthened to implement additional activities under the Project.

International evidence indicates the importance of ICT capacity and skills as a key factor for national and global economic development. The Government is committed to introducing ICT in education. The Project provides an opportunity for MESC to meet its ICT objectives, building on lessons learned in the SchoolNet pilot funded by the Asian Development Bank (ADB). Samoa will be the first Pacific developing member country to provide universal access to ICT-based instruction and Internet access to secondary schools. The design of the Project will provide important information on the costs and effectiveness of ICT for student achievement and future employment.

The Samoa experience will be of great value to other countries in the Pacific and to the development community toward further developing ICT strategies. The issue of ICT literacy is of particular importance in Samoa, as 35% of the population works overseas and remittances constitute 17% of the gross national income.

Impact and Outcome

The proposed Project will help the Government achieve a more equitable and effective ICT-enhanced education system and promote life-long learning. The outcome of the Project will be enhanced learning outcomes for secondary students and improved knowledge sharing through ICT.

Project Investment Plan The total project cost is estimated at \$6.90 million equivalent, including contingencies, local taxes, and duties.

Financing Plan

(\$ million)		
Source	Total	Percent
Asian Development Bank	5.9	85
Government	1.0	15
Total	6.9	100

Source: Asian Development Bank estimates.

Grant Amount and Terms ADB will provide a grant of \$5.9 million from its Special Funds resources to finance 85% of the total project cost. The remaining \$1.0 million (15%) will be provided by the Government.

Period of Utilization Until 30 June 2013

Estimated Project Completion Date 31 December 2012

Implementation Arrangements

MESC will be the implementing agency. The existing ESP II Education Steering Committee will be responsible for the Project and may co-opt members to include other main project stakeholders and so provide strategic direction and oversight to the Project. The Steering Committee will meet as necessary but not less than once every 6 months. A Technical Advisory Committee will be established to advise the Steering Committee on technical matters. It will consist of representatives with ICT expertise from local information technology companies, the Ministry of Communications and Information Technology, Samoan Information Technology Society, National University of Samoa, and MESC. MESC will have overall responsibility for managing project implementation, monitoring and evaluation, and reporting progress, in coordination with ESP II. At the operational level, the Project will be managed by the MESC Core Executive and supported by the Office of the Chief Executive Officer, SchoolNet project manager, and ESP II Secretariat.

All components of the Project will be implemented through the existing MESC organizational structure and coordinated with the ESP II implementation schedule. The Project has a 2-stage design, with stage 2 contingent upon successful completion of stage 1. Consulting services will be provided to strengthen the capacity of the Core Executive to deliver the Project. MESC will appoint a full-time project manager, who will work in coordination with the MESC Core Executive and ESP II coordinator and assist in procurement, planning, reporting, monitoring, and record keeping. The project manager will report to the MESC Core Executive. The ESP II Secretariat and SchoolNet project manager will coordinate activities, supported by a consultant project management adviser, for the smooth operation of the Project.

Executing Agency Ministry of Finance

Procurement	All goods and services financed under the Project will be procured in accordance with ADB's <i>Guidelines for Procurement</i> (2007, as amended from time to time). All procurement packages valued to be above \$1 million will be procured following the international competitive bidding procedures. Procurement of equipment up to \$1 million will be procured using national competitive bidding and procurement of goods and services below \$100,000 will follow shopping procedures.
Consulting Services	The Project will provide about 72 person-months of international and 108 person-months of national consulting services. All international and associated national consultants will be selected and recruited in accordance with ADB's <i>Guidelines on the Use of Consultants</i> (2007, as amended from time to time). Most international consulting services will be provided by one firm. Provision is made to recruit individual consultants for the project management adviser position and for the unallocated person-months as needed during the life of the Project. The Project will use the quality-based selection method to recruit a firm.
Project Benefits and Beneficiaries	The Project will benefit students, teachers, and communities in Samoa by (i) improving learning tools, education curricula, and student learning outcomes; (ii) establishing communication access points for schools and communities; (iii) establishing school management tools; (iv) building capacity in the use of ICT and in financial planning, research, and evaluation; and (v) enhancing partnership across government agencies with donors and other stakeholders. In addition, other Pacific developing member countries and donor organizations, including ADB, will benefit from lessons learned through the implementation and evaluation of the first comprehensive national SchoolNet program in the region. The provision of national coverage through investments in data communications equipment will significantly lower the cost of eventually extending ICT to primary schools and other institutions.
Risks and Assumptions	<p>Risks associated with the Project are (i) uncertain long-term financial support for the system, (ii) weak managerial capacity to support schools and teachers, and (iii) potential lack of interest in the community.</p> <p>It is assumed that the Government will maintain its commitments to this Project and develop and enforce appropriate policy. It is also assumed that MESC will recruit and retain managerial and technical staff to support the initiative.</p>

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Independent State of Samoa for the SchoolNet and Community Access Project (the Project). The design and monitoring framework is in Appendix 1.

II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

2. Samoa is an independent Pacific island country with a small but open economy. Lack of opportunity and income vulnerability, often exacerbated by external economic shocks and natural disasters, contribute to hardship in rural areas, particularly on the island of Savai'i. Despite its vulnerability, Samoa has experienced stability and moderate economic growth. Its real gross domestic product (GDP) grew between 1993 and 2007 by an annual average of 4%, the highest rate among Pacific island economies. Poverty is not a problem; private remittances from the 35% of the population living abroad are substantial (17% of gross national income), and the extended family system redistributes income effectively. External aid represented 11.5% of gross national income in 2005. The 1999 Pacific Human Development Report ranked Samoa seventh among 15 developing island economies in the Pacific region, and Samoa ranked 75th globally in the 2006 Human Development Report.¹

3. Education remains a priority for the Government. The sector has shown significant achievements, including an adult literacy rate of 98.7%,² the highest in the region. About 90% of grade 8 completers have access to secondary education. Gender disparities have been eliminated at the primary level and are declining at the secondary level.³ Samoa has made considerable progress toward achieving Education for All targets and Millennium Development Goals, and management capacity in the Ministry of Education, Sports, and Culture (MESC) has been substantially strengthened. All this provides a foundation for further developing the sector.

4. In April 2007, the Ministry of Finance (MOF) and MESC confirmed their commitment to expanding SchoolNet and the Community Access Project (CAP), and requested grant funding from ADB to (i) consolidate the work undertaken in the SchoolNet pilot, (ii) provide technical support to integrate the e-learning approach in the Education Sector Project II (ESP II), and (iii) expand SchoolNet to include additional schools and their respective communities to bridge the digital divide and increase employability and knowledge sharing.⁴

A. Performance Indicators and Analysis

5. Despite good progress in education, significant challenges persist. Variations in student's opportunities for learning and learning achievement remain significant, particularly between urban and rural areas. High expenditures on education (equivalent to 8.7% of GDP and 29.9% of total government expenditures for (FY) 2006–2007 have not provided the

¹ United Nations Development Programme (UNDP). *Pacific Human Development Report 1999; Human Development Report 2006*. Colombo.

² Based on the 2001 census. Data from the new census conducted in October 2006 are not yet available.

³ An emerging characteristic of education in Samoa is that, as a group, girls perform better than boys, and there is a need to address this situation (Ministry of Education, Sports, and Culture. 2006. *Strategic Policies and Plan July 2006–June 2015*. Apia [p.12].

⁴ During the Fact-Finding Mission, the Government requested that the Project cover all government and mission secondary schools as they have better infrastructure than primary schools. ADB agreed in line with evidence in British Education Communication Technology Agency studies that information and communications technology interventions had better applicability at the secondary level. Coverage in all 22 districts will lay the groundwork for eventual expansion to the primary level.

educational outcomes envisaged.⁵ In 2006, the net enrollment rate at the primary level was 69%, while the gross enrollment rate was 97%. More than 25% of the students enrolled in primary education did not complete the 8-year program. The same year, the dropout rate was 18% for grades 10–11, 3% for grade 12, and as high as 41% for grade 13. Repetition rates at grades 11, 12, and 13 are high, and have not changed since 1997. Also in 2006, 88% of primary students progressed to lower secondary level and 91% progressed to upper secondary level, but only 53% of 12th graders advanced to grade 13. A major effort is required to address the problems of equity, relevance, and quality of learning achievements, as well as the effectiveness of resource utilization. MESC's Strategic Policies and Plan July 2006–June 2015 (SPP) identifies deficiencies in the education sector that need to be addressed. Appendix 2 provides an analysis of the sector.

6. Many of the issues in the sector will be addressed under the ongoing ESP II 2006–2012 to achieve better learning outcomes for both primary and secondary students. ESP II was approved in 2005 and is supported by ADB, Australian Agency for International Development (AusAID), New Zealand Agency for International Development (NZ Aid), and the Government using a sectorwide approach (SWAp).⁶ ESP II focuses on (i) curriculum reform and assessment systems; (ii) developing effective teachers; (iii) improving access to high-quality education; (iv) strengthening capacity to undertake research, evaluation, and policy analysis; and (v) planning—as well as strengthening capacity to implement and manage development projects. Since ESP II effectiveness in mid-2006, MESC has completed various activities including overall coordination and reporting arrangements. However, ESP II uses mainly traditional methods to achieve high quality and efficiency in the sector. Its scope does not include well-conceptualized, integrated, and sustainable capacity-development activity to support information and communications technology (ICT) as a tool to enhance student learning outcomes and manage the education system.

7. ICT plays an important role in good education.⁷ ICT capacities—such as simulation, mind maps, illustration of complex and abstract concepts and results, collaboratively working on projects, and accessing extensive global databases for new ideas—both enhance the quality of the learning experience and significantly motivate students. The imperative for education is to increase access to ICT and inculcate among students the capacity to adopt life-long learning, to constantly seek and critically analyze new information, and to develop capacity to use ICT as a tool to cope with the challenges of a fast-changing world. Innovations in ICT, together with the associated productivity tools, are increasingly changing the socioeconomic landscape of many countries. Yet in Samoa, access to ICT facilities is still limited. The ICT policy of the Government is to ensure access for all Samoans with a focus on introducing ICT in education. The capacity of ICT and associated tools that can be provided through SchoolNet needs to be embedded within an e-learning vision to achieve the Government's policy objective. To complement the activities of ESP II and address the problem, the Project will be implemented in coordination with ESP II and incorporate an e-learning and e-training approach to support all 42 government and mission secondary schools (out of a total of 44 secondary schools). It will also

⁵ These figures include both government allocations and external support to the sector.

⁶ AusAID and NZ Aid participated in the Fact-Finding Mission for the proposed Project and provided extensive comments on the draft project design. AusAID and NZ Aid may provide support to learning center administration by providing youth ambassadors and volunteers, as well as study tours to New Zealand and Australia for staff of the Curriculum Materials and Assessment Division and MESC IT Unit for capacity development.

⁷ In recent years, ADB has implemented projects in the area of ICT in education (Supplementary Appendix A). A major international conference on ICT in education was held on 16–18 October 2007. Government officials from developing member countries and private sector ICT providers attended, indicating the changing focus at ADB.

provide community access to the learning centers that will be established in all 42 secondary schools to support life-long learning and business operations.

B. Analysis of Key Problems and Opportunities

8. Recent reviews of the education sector⁸ identified several issues related to access to high-quality education, as discussed below. The Government, through its Samoa Development Strategy 2005–2007 (SDS) and SPP, is fully committed to achieving efficiency and quality goals in education. Though primary education efficiency and quality issues will be addressed under ESP II, access and quality issues at the secondary level will need attention to improve student learning outcomes and systemwide efficiency.

9. **Lack of Access to High Quality Secondary Education.** High-quality learning opportunities are not available to all students. Schoolchildren and teachers outside Apia are physically isolated from those in the capital and have limited access to good teaching resources, library facilities, and alternative knowledge sources. Similarly, well-trained teachers with adequate skills to effectively facilitate learning and manage classroom activities are in short supply, especially in rural areas. Rural teachers cannot travel often to Apia for in-service training and refresher courses. They tend to be isolated, with poor interaction with their peers and little opportunity to exchange professional experiences.

10. The key concepts of quality and efficiency require urgent attention, as noted in MESC's SPP. This concern is consistent with new initiatives directed at understanding how efficiency and quality are linked. A consensus is emerging that an economic definition of efficiency (which includes the quality dimension) is essential in assessing a system's efficiency. Research shows that differences in individual earnings and rates of economic growth are more closely linked to average performance on international standardized tests than on average years of schooling.⁹ Development agencies now focus on quality and unit cost data as the bases for assessing efficiency. ADB and the World Bank stress learning outcomes, rather than enrollment, as key efficiency targets.¹⁰

11. **Use of ICT to Improve Access, Quality, and Efficiency in Education.** The provision of ICT-enhanced learning centers in all 22 districts, adaptation of a curriculum, and provision of learning materials that support the use of ICT skills across a range of curriculum subjects are necessary to ensure an active ICT role in the education system. An ICT-based curriculum also requires a new set of assessment strategies that measure not just traditional knowledge acquisition but specific skills and ICT competencies, problem-solving and research capacity, and the development of higher cognitive skills. In terms of curriculum development, the inclusion of ICT-related skills and opportunities presents new and unfamiliar challenges, and MESC will need to examine a range of model ICT-based curricula from different countries. Curriculum Materials and Assessment Division (CMAD) staff will need training to adopt and manage the e-learning curriculum.

⁸ ADB. 2005. *Samoa: Equity, Quality, Relevance, Efficiency: Education Sector Review Prepared under TA 4256*. Manila; and ADB. 2007. *Samoa Schoolnet Feasibility Study prepared under TA 4305*. Manila.

⁹ Hanushek, E. and L. Wössmann. 2007. *The Role of Education Quality in Economic Growth*. World Bank Policy Research Working Paper No. 4122. Washington, DC.

¹⁰ See Chapman D. and D. Adams. 2002. *The Quality of Education: Dimensions and Strategies*. *Education in Developing Asia Volume 5*. Manila: Asian Development Bank; and World Bank. 2006. *From Schooling Access to Learning Outcomes: An Unfinished Agenda—An Evaluation of World Bank Support to Primary Education*. Washington, DC.

12. ICT is a tool that can significantly improve teachers' access to training, allow them to actively communicate with peers, and address issues of isolation. But, even when teachers have access to ICT tools, they rarely use them effectively for lack of confidence. To develop confidence, they need both generalized ICT skills training and training in the use of ICT in a range of individual subjects. Significant additional training is therefore required. The national teacher development framework¹¹ has identified minimum ICT competencies for teachers. The Government should make these mandatory for teachers and ensure that they attend training courses. MESC needs assistance in addressing these issues, as they are critical to sector sustainability. This effort will need to build on plans supported by ESP II to consolidate MESC databases to support sharing and analysis.

13. The country is divided into 22 districts, with eight on the island of Savai'i and 14 on Upolu, including three districts in the Apia urban area (districts outside this area are considered rural). Samoa has three types of schools—government, mission, and private—for a total of 204 primary and secondary schools. Of the total, government and mission schools account for 42 secondary and 154 primary schools, of which 19.5% (24 primary and 14 secondary) are in the Apia urban area, 47.9% (79 primary and 15 secondary) are elsewhere on Upolu, and 32.6% (51 primary and 13 secondary) are on Savai'i. The total number of students in the government and mission schools is 52,851, of whom 37,980 are primary and 14,871 secondary.

14. There is at least one primary school in each village and one secondary school in each district. Electricity and telephone services are available in all districts and schools, and some schools have ICT equipment and Internet connections. The Government should therefore improve access to high-quality secondary education by providing all secondary schools with e-learning equipment and materials and, where possible, Internet connection and access to a broad range of curricula, learning materials, and other quality-enhancing resources available through SchoolNet and ICT. This will be particularly important for remote schools serving disadvantaged communities. The Government needs to ensure that including ICT in secondary schools will not impose an additional financial burden in the form of higher fees.

15. **ICT Infrastructure.** While Samoa's two islands are served well by fixed and mobile telephone infrastructure, Internet access is limited to Apia and a few other centers. Dial-up Internet connections are common, though slow, unreliable, and expensive. Wireless and digital subscriber line connections are available around the Apia area, where most users live. International commercial Internet access is a monopoly of the state-owned operator. Retail prices of Internet access are high because of the low density of users in the country and the profit margins of the operators and do not differ much across existing Internet service providers. Telecommunications regulations permit noncommercial international access, and the National University of Samoa, diplomatic offices, and some church groups have their own links. While international access for both voice and data is mainly by satellite (with the exception of a microwave link to American Samoa), it is envisaged that Samoa will connect to one of the two available Pacific undersea fiber cables in the near future. This is not, however, expected to make a significant difference to retail costs unless the Government negotiates an special rate for education. Wireless and Worldwide Interoperability for Microwave Access technologies are expected to be deployed broadly in the country in the next few years. The SchoolNet pilot data center and portal are currently hosted by a local Internet service provider and may remain there until the server room in the new MESC headquarters is established, at which time the SchoolNet portal and the consolidated database may be relocated. The Government should

¹¹ ADB. 2005. *Technical Assistance to the Independent State of Samoa for the National Teacher Development Framework*. Manila (TA 4738-SAM, approved on 16 December 2005, for \$350,000).

consider developing and implementing plans and policies for a universal services fund (or equivalent)¹² and international gateway, to ensure that surplus capacity and budgetary resources can be made available to schools to (i) provide an affordable education network, (ii) fund capital replacement costs, and (iii) ensure the long-term financial sustainability of ICT in education.

16. Lack of Community Access to ICT. Communication and access to information are limited in rural communities, contributing to isolation and missed opportunities and hindering access to knowledge and skills that could help people generate income, maintain and improve their surroundings, and lead healthier and more productive lives. Lack of ICT capacity prevents people from accessing national and global information and limits their prospects for self-employment or job enhancement at home and abroad. Weak school and community partnerships undermine their potential to act as catalysts for national rural communications or as rural service delivery points, or to provide a basis for income generation to support the SchoolNet initiative. A need therefore exists to make the learning centers accessible to communities after school hours and, in so doing, support the Government objective of universal access to ICT and allow communities to improve communication and knowledge sharing.

17. Limited Management Capacity. Management capacity is limited in Samoa in general. Recent interventions considerably strengthened MESC's capacity to manage the education system. For example, school management committees have been established; nearly all school principals have been trained in school management and planning school improvement programs; and a minimum standard baseline checklist has been developed. However, further capacity building is required both for schools and ICT learning centers. Currently, MESC has a staff of only two: one information technology (IT) systems specialist and one technician to manage MESC IT services. As the 42 additional schools, as well as CMAD and the School Operations Division (SOD), join the ICT system, capacity will be seriously strained. One staff member will need to be located at the education resource center on Savai'i to provide technical support to all secondary schools on that island.¹³ Another staff member will be needed to provide general support services (a help line) and maintain the data center. The Government therefore should ensure that (i) sufficient resources including staff are provided to the MESC IT unit, (ii) SchoolNet management committees are formally established in local communities, and (iii) MESC staff participate in capacity building. Strongly supportive school management is critical for developing a school confident of its IT capabilities.

18. External Support. External funding concentrates heavily on the education sector (Appendix 3). AusAID, European Union, Japan International Cooperation Agency (JICA), NZAID, United Nations agencies, and others have been involved in various education projects. Their funding has included important support for curriculum development, teacher training, instructional materials, and capacity building. The European Union and JICA have provided support for primary school construction. ADB, along with the Government and school committees, has allocated \$7 million for civil works, furniture, equipment, library materials, and

¹² Many countries both industrialized (e.g., United States and Canada) and developing (e.g., Belarus and Namibia) have adopted the universal services fund concept. The government legislates and establishes a fund financed through telecommunications companies. Legislation requires the fund to have a reserve for providing telecommunications services to lower-income residents and underserved villages. The regulator in Samoa has drafted legislation for a universal services fund that is currently tabled for the Cabinet's consideration.

¹³ MESC currently uses a Peace Corps volunteer to do the work, but if no counterpart is assigned by MESC there will be no capacity when that person leaves. If MESC intends to use Peace Corps volunteers in the short to medium term, there should be an agreement with the Peace Corps to ensure that these IT-skilled volunteers will be available. That should be included in the MESC Strategic Plan for ICT.

teacher training under the recently completed ESP I. ESP II is providing limited IT equipment to MESC. Currently, the International Telecommunication Union and United Nations Development Programme are supporting the Telecenters Project, through which computer equipment and limited Internet connection are provided. JICA has provided technical assistance for designing and strengthening the National University of Samoa's ICT capacity.

19. **Lessons Learned.** Lessons from earlier interventions in Samoa and elsewhere are significant (Appendix 4).¹⁴ The key one is that well-targeted, long-term, and coordinated investments can improve the quality and equity of education provision, including ICT in education, but effective implementation of these initiatives at the school level is of central importance. Hence, a well-supported, integrated approach is necessary to encourage MESC staff to engage with the Project and to fully understand it. ESP I demonstrated that providing only computers to schools has little impact on teachers' competencies or student learning outcomes. A well-planned short- and medium-term staff development plan should be prepared along with e-teaching and e-learning resources. The SchoolNet pilot and RETA-6278 indicated that capacity development should include school administrators, MESC head office staff, teachers, and principals. Schools provide a focal point in most communities and are the best location for ICT interventions. Experience suggests that a need exists to provide more support for community awareness and management capacity to empower schools and communities and encourage their ownership of learning centers and their use of them without concerns for sustainability. Experience with telecenters in education indicates the need to adopt open policies to allow communities, government, and the private sector access to telecenters, and to share the cost among them. Government policies have been found to be critical to sustainability. There is a need to encourage multipurpose school and community access centers to be used by government departments and public utilities with support from the budgets of those departments. In some countries, school-based ICT centers also offer community services and training.

20. General lessons are also available in the ADB Evaluation Information System.¹⁵ Several of them are reflected in the project design, as follows:

- (i) Flexibility in project design is essential to permit midcourse adjustments.
- (ii) A sector strategy and action plan should be developed for any education sector project to provide future directions for overall sector development.
- (iii) When formulating policy reforms, a comprehensive review and analysis of the sector, followed by continuing policy dialogue over an extended period, are important.
- (iv) For vocational training graduates, more tracer studies of graduates must be conducted for future planning.

¹⁴ ADB. 2000. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Independent State of Samoa for the Education Sector Project*. Manila (Loan 1752-SAM, for \$7.0 million, approved in August); ADB. 2003. *Technical Assistance to the Independent State of Samoa for Supporting the Samoa Schoolnet and Community Access Pilot Project*. Manila (TA 4305-SAM, approved on 19 December, for \$760,000); ADB. 2005. *Technical Assistance for the Innovative Information and Communications Technology in Education and for Reducing Poverty in the Asia and Pacific Region*. Manila (TA 6278-REG, approved on 2 December, for \$1,000,000). ADB. 2005. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grant to the Independent State of Samoa for the Education Sector Project II*. Manila (Loan 2220, for \$30.00 million, approved on 16 December); AusAID. 2000. *Institutional Strengthening Project*. Apia; NZAID. 2004. *Samoa Secondary Education Curriculum and Resources Project (SSECRP)*. Apia; AusAID. 2004. *Primary Education Materials Project (PEMP) I and II*. Samoa; International Technology Union and Ministry of Communication, Information and Technology Tele-center Project. Samoa.

¹⁵ Available: <http://evis.adb.org/oed001p.nsf/SearchLessons?OpenForm>.

21. **Government Priorities.** Samoa's first long-term education development plan, Education Policies 1995–2005 and Education Strategies 1995–2005, had equity, quality, relevance, and efficiency as central objectives. The second plan (the SPP) has an additional focus on sustainability. For its part, the SDS considers education a contributing factor to both economic growth and social development. SDS identifies improving the learning outcomes of primary and secondary students as a national priority.

22. The Government recognizes that improving quality in education service provision through a SWAp is essential and that it may need to review resource allocations to different education subsectors to ensure that basic education is funded at the level necessary for achieving Education for All targets and Millennium Development Goals. The ICT policy of the Government is to ensure access to ICT for all Samoans. Through the Ministry of Communications and Information Technology master plan, National ICT Secretariat, and MESC, the Government has introduced national ICT policies¹⁶ with a focus on introducing ICT in the education sector.

23. The ICT Communication Act establishes a monopoly for international access provision until mid-2009. Noncommercial traffic for the Internet, including voice-over-Internet protocol, is allowed. The National ICT Strategic Plan, which was recently drafted by the Ministry of Communications and Information Technology for developing the ICT industry, includes the development of e-government and e-commerce components. MESC also has an IT master plan that outlines a policy framework for introducing ICT in the sector. This master plan is due for revision, providing an opportune time to align MESC's strategic plan with an integrated vision for the sector.

24. **ADB Strategy.** Government policy guidelines are in congruence with ADB's Pacific Strategy (2005–2009)¹⁷ and the ICT Blueprint for the Future¹⁸ for the Pacific. ADB's ICT strategy focus is on (i) developing capacity to use ICT to overcome constraints associated with smallness and isolation, and to realize potential gains offered by links to a global market, and (ii) developing ICT as a tool in education and health, and as communication infrastructure for the improved sharing of information and provisioning of basic services in working toward the Millennium Development Goals. ADB's draft Country Partnership Strategy (2008–2012) with Samoa highlights the Government's interest in expanding the SchoolNet initiatives to the national level to (i) improve the quality of education for all, especially for the disadvantaged; (ii) meet the employment aspirations of the young; and (iii) contribute to an improved quality of life. Furthermore, ADB's Education and Training Sector Strategy for the Pacific (2005)¹⁹ emphasizes ADB's commitment to increasing the use of new technologies, particularly ICT, in education. ADB will continue its policy dialogue with the Government and support the development of a policy environment that prioritizes equitable opportunities to learn. It will also continue dialogue on reforms in the education sector that will provide resources for the operation and expansion of ICT in education and encourage public-private partnerships between businesses and communities to support social development.

¹⁶ See Ministry of Communications and Information Technology. 2006. *Policy Guidelines for ICT Expansion in the Country*. Apia. In recent years, the Government has implemented these policies through, for example, the Country Gateway Project, Women's ICT Project, National University of Samoa's expansion of ICT in education, and deregulation of the ICT sector.

¹⁷ ADB. 2005. *A Pacific Strategy for the Asian Development Bank 2005–2009: Responding to the Priorities of the Poor*. Manila.

¹⁸ ADB. 2003. *Information and Communication Technology for Development in the Pacific*. Pacific Studies Series. Manila (pp. 28–34).

¹⁹ ADB. 2005. *Better Learning, Better Future: Education and Training Sector Strategy for the Pacific*. Manila.

25. A study²⁰ commissioned by ADB notes the importance of ICT as a critical tool providing a competitive edge in an information- and knowledge-rich global economy. Moreover, ADB has placed special emphasis on the dynamics of overseas employment and remittances, especially as they apply to Pacific island countries. Given the importance of remittances in Samoa, the Project will provide an excellent opportunity to investigate linkages between ICT skills, employment, and income.²¹

III. THE PROPOSED PROJECT

A. Impact and Outcome

26. The proposed Project will help the Government to achieve a more equitable and effective ICT-enhanced education system and promote life-long learning. The outcome of the Project will be enhanced learning outcomes for secondary students and improved knowledge sharing through ICT.

B. Outputs

27. The Project will focus on the secondary level, adopt an integrated ICT-in-education approach, and set up learning centers in all 42 government and mission secondary schools in all 22 districts. The Project will develop the capacity of about 800 teachers and provide ICT access to about 1,500 secondary students and 22 communities. The Project will have four components: (i) improving the quality of teaching and learning in secondary schools; (ii) improving education access through ICT; (iii) establishing the CAP and developing partnerships; and (iv) strengthening education management and coordination, including improving analyses of economic efficiency, equity, and sustainability. Outputs of component 1 are (i) e-curriculum capacity development and distribution, (ii) e-teaching capacity development, and (iii) management capacity development. Outputs of component 2 are (i) the provision of SchoolNet equipment and connectivity, (ii) the integration of the SchoolNet pilot with the Project, (iii) an extended network to connect MESC internally and with schools, (iv) a strengthened data center and portal, and (v) strengthened MESC ICT capacity. Outputs of component 3 are (i) community access and use of SchoolNet, (ii) strengthened SchoolNet and CAP management, and (iii) partnership development. Outputs of component 4 are (i) strengthened education management and coordination and (ii) improved analyses of economic efficiency, equity, and sustainability.

1. Component 1: Improving the Quality of Teaching and Learning

28. This component will develop the capacity of MESC, teachers, and students from all government and mission secondary schools in ICT competencies. The support provided for this component will complement and expand ESP II activities to include ICT competencies and developing and using e-learning resources in classroom teaching and learning processes. The Project will (i) provide consulting services to train 15,000 students; 800 secondary teachers; 21 school review officers; and CMAD, SOD, and IT unit staff, locally as well as with overseas field studies and workshops; (ii) adapt and/or purchase e-learning materials and courseware for at least six secondary subjects (with priority on mathematics and science) and two ICT

²⁰ Eminent Persons Group. 2007. *Towards a New Asian Development Bank in a New Asia*. Manila: ADB (report to the ADB President, March).

²¹ See, for example, Brown J. and R. Brown. 2005. *Remittances in the Pacific: An Overview*. Manila: ADB. ADB also supports a general project on enhancing the efficiency of overseas workers' remittances.

applications for community learning; and (iii) develop a SchoolNet management handbook. This component will be led by CMAD but closely supported by SOD and ICT Unit.

29. E-curriculum Capacity Development and Distribution. Complementing ESP II activities develop the capacity of CMAD staff, the Project will (i) expand capacity to adapt an e-curriculum and to embed ICT as a learning and teaching tool in identified subjects and grades; (ii) upgrade CMAD's capacity to search for, identify, and evaluate suitable e-learning materials; (iii) acquire a stock of appropriate e-learning and teaching materials through purchase, licensing, adaptation, and localization; (iv) source and/or adapt local e-materials; (v) make e-learning materials widely available through SchoolNet; and (vi) organize and distribute e-learning materials developed and/or sourced as required by CMAD. In addition, teachers and students will be trained in the use of productivity applications as part of teaching and learning. Assistance will be provided to CMAD to expand the inventory of e-learning materials, including accredited courseware available for ICT training.

30. E-teaching Capacity Development. Under this subcomponent, the capacity of SOD and the National University of Samoa will be strengthened to jointly develop and deliver online professional development programs for teachers. This will include developing the ICT competencies of teachers in using e-learning materials and preparing lesson plans. As they become available, other tools will be integrated in their teaching practices. The new national teacher development framework lists ICT competencies as mandatory for all teachers, so there should be in 3 years a sufficient supply of pre-service teachers with ICT competencies to offset any attrition to the private sector.²²

31. Management Capacity. The Project will build the management capacity of teachers, principals, school review officers, and learning center administrators in participating schools using a training-of-trainers model. This will include the management of the school administration system, of SchoolNet administration, and of the learning centers. A SchoolNet management handbook will be developed. CMAD and SOD will develop monitoring indicators for their activities and implement a process to progressively evaluate the impact of their interventions.

2. Component 2: Improving Education Access through ICT

32. This component will provide learning center equipment packages to 42 secondary schools. While all government and mission secondary schools will participate, constraints of capacity and logistics require that this component be implemented in three phases over a 3-year period. Schools will be selected for each phase to assure that there is a representative mix of characteristics to support the evaluation of impacts²³ by means of a quasi-experimental design. A participating school receiving the learning center package will not impose fees or increase school fees for the use of ICT without MESC approval. Supplementary Appendix B provides a conceptual design for measuring learning outcomes. This component will be led by the MESC IT Unit and the MESC Assets Management Unit (AMU) and supported by SOD.

33. The learning centers and MESC will be connected through a wide area network (WAN).²⁴ Initial networking will be provided through wireless and dial-up technology. An

²² In the immediate term, the risk is low as the private sector is just beginning to embrace ICT as a productivity tool. Incentive schemes—such as subsidized housing currently being developed for retaining rural teachers—should also be considered for retaining good ICT teachers.

²³ The evaluation of impacts is included in Component 4, as part of improving the analysis of sector efficiency.

²⁴ The connectivity design will use wireless broadband technology and a WAN for domestic networking, which is costed as an annual fixed fee and not on traffic volume. This will significantly reduce the connectivity cost and

international connection will be established by an Internet link through a provider within or outside Samoa. Licensing will be obtained, as necessary, on a noncommercial basis. The Project will provide equipment, software, and consulting services for the LAN, WAN, and data center and portal, as well as for training and consultative workshops to strengthen MESC ICT capacity and training (intensive face-to-face, field study, and mentoring).

34. **Provision of SchoolNet Equipment and Connectivity.** The Project will provide all government and mission secondary schools with an e-learning center. Each center will be supplied with computer workstations; servers; peripherals such as printer, scanner, video camera, data projector, and networking equipment; related software; and consulting services. An indicative learning center package (which may change during detailed project design) is provided in Supplementary Appendix C. Where current IT infrastructure permits, the center will be connected to the SchoolNet network. The Project will help the Government to develop policies and guidelines for disposing of obsolete equipment. Each school and its community will be responsible for operating and maintaining its center. The maintenance of equipment and connectivity will be part of contracts with the equipment suppliers.

35. **Integration of SchoolNet Pilot.** The Project will review the performance of the LAN and WAN provided under the SchoolNet Pilot to ensure that they remain fully operational. As technological and infrastructure changes occur in ICT, appropriate and up-to-date design is needed to integrate the SchoolNet pilot sites with the Project.

36. **Extended Network to Connect MESC.** The capacity of current equipment at CMAD; SOD; the Policy, Planning, and Research Division (PPRD); and the IT Unit will be reviewed for compatibility with the SchoolNet network. With ESP II implementation units, compatible network equipment will be procured and installed, and wireless broadband connection commissioned, to link to CMAD, SOD, PPRD, and the IT Unit. All other existing equipment and MESC intranet connections will be standardized and connected to the SchoolNet network.

37. **Strengthened Data Center and Portal.** The equipment of the MESC data center will be assessed for its capacity to provide high-quality and fast services, and it will be replaced if necessary. Access and authentication will be provided for all participating schools and MESC divisions. This will ensure that all schools have standardized access to e-teaching and e-learning materials.

38. **Strengthened MESC ICT Capacity.** Assistance will be provided to MESC to strengthen its ICT capacity to effectively manage and support the expanded SchoolNet network and its own operation. Capacity will be developed through on-the-job and specific technical training in network, data center, and portal management. Capacity will be developed to manage the education management information system (EMIS) of MESC. Additional staff will be recruited and trained to manage the expanded SchoolNet network and focal points in schools. The Government will recruit or redeploy at least two staffers to the MESC IT Unit, who will be trained to manage the expanded network of schools and provide IT support services to all clients of the expanded network. Furthermore, MESC will appoint two teachers in each school that it can ensure will be available for training as SchoolNet administrators. School administrators will act as focal points and be responsible for their learning center.

provide unlimited use. Internet access will be provided through a single gateway from the WAN, allowing close monitoring to manage cost. Also, visited websites will be cached at the data center and not require subsequent visits to the Internet.

3. **Component 3: Establishing the Community Access Program and Partnership Development**

39. This component will support MESC and the participating schools to make learning centers available to the surrounding communities. It will develop management models and partnership arrangements with existing school committees and private sector IT suppliers, which should maximize project sustainability. The Project will provide consulting services and training; develop and distribute advocacy materials and a learning center administrative manual; and conduct consultative workshops. This component will be led by SOD and closely supported by the MESC IT Unit and AMU.

40. **Community Access and Use of SchoolNet.** School managers and/or principals will make the SchoolNet learning centers accessible to the communities surrounding their school after school hours. Support will include assistance in developing a plan and an administrative manual for this, and in training community members in basic ICT skills. An advocacy program will be developed and implemented to engage the community. This component is expected to contribute to financial sustainability, as small fees may be charged to recover equipment operating and depreciation costs and for access and training.

41. **SchoolNet and Community Access Program Management.** The Project will provide support to school managers to (i) develop locally appropriate policies to manage ICT equipment, (ii) plan types of services to be provided, (iii) develop and adopt a cost-recovery or cost-sharing approach, and (iv) develop procedures for staff to handle the daily administration of community access. While improving the capacity of the community to take advantage of ICT, the CAP will also help improve the sustainability of the Project by charging user fees for day-to-day operation. The Government will ensure that SchoolNet management committees are formally established as subcommittees of the larger school committees.²⁵

42. **Partnership Development.** In support of sustainability, the Project will assist MESC in developing and implementing a series of partnerships with other government agencies, donors, the private sector, and other stakeholders. Key partnerships envisaged include those with (i) school communities; (ii) government agencies; (iii) the donor community; (iv) religious groups; (v) civil society; and (vi) private sector ICT companies, both local and international, to provide services at a subsidized connection rate or to accelerate and adopt the universal services fund.²⁶

4. **Component 4: Strengthening Management and Coordination, and Improving Analyses of Economic Efficiency, Equity, and Sustainability**

43. This component will support ESP II activities associated with enhancing EMIS and MESC capacity in ICT to increase management efficiency. It will undertake an impact study and prepare a medium-term expenditure framework and a financing framework for progress toward financial sustainability. The Project will provide consulting services, equipment to MESC divisions and units, and training (including workshops). The component will be led by PPRD and supported by the MESC IT Unit.

²⁵ Under the SchoolNet pilot, subcommittees of the larger school committees were established. They had six members: three office-bearers who were from the school committees and three ordinary members. In some cases, the ordinary committee members were chosen for their IT and business skills.

²⁶ See Supplementary Appendix D for discussions on detailed partnership agreements. These agreements are intended to address the efficient use of the learning centers and ensure sustainability.

44. **Strengthened Education Management and Coordination.** In close coordination with ESP II, the Project will provide support to ensure that (i) MESC has robust EMIS and evaluation systems and (ii) capacity will be created to improve the management processes, including ICT systems, for (a) school management, including student and teacher attendance records, asset management, and facilities scheduling, and (b) learning, including grading, lesson plans, and courseware management. Support will be provided for producing integrated project reports, reviews, and auditing. Data collection and analysis procedures will be developed further, using ICT tools and criteria. In addition, the Project will establish processes and procedures to integrate SchoolNet with ESP II.

45. **Improved Analyses of Economic Efficiency, Equity, and Sustainability.** Quasi-experiments will be undertaken to evaluate SchoolNet's impact on student learning outcomes. Through this subcomponent, the Project will finance the development of baseline measures of equity and efficiency and the preparation of medium-term expenditure and financing frameworks, as well as projection models for assessing and monitoring progress toward financial sustainability.

C. Asian Development Fund IX Grant Component

46. The Project is included in the Samoa Country Operations Business Plan 2007–2009, as recently approved by ADB, with an allocation of \$5.9 million in the form of an Asian Development Fund (ADF) grant. Public sector debt has been declining since the early 1990s, from over 100% of GDP to about 38% of GDP in late 2006. Samoa will likely graduate soon from least-developed country status. However, the economy remains dependent on imports and vulnerable to climate and global price shocks. Although the debt situation is sound, there are concerns that recent improvements in the debt-to-GDP ratios reflect large official investment flows for infrastructure for the 2007 South Pacific Games. The proposed ADF grant will ease the macroeconomic impact of the Project's large financing requirements.

D. Special Features

47. **Flexible Design.** Based on lessons learned from the SchoolNet pilot and other general lessons, the project design incorporates a flexible approach. The fundamental design has been agreed with the Government. This includes the scope of the Project (all secondary schools), specification of hardware and connectivity standard (SchoolNet pilot), management and procurement (ESP II congruent), monitoring and evaluation, and reporting and auditing. The first stage (about 12 months) will provide an opportunity for fine tuning based on the outcome of issues and priorities identified in the baseline study and an analysis of the efficiency of the education system. This will be a key factor in risk mitigation. Also, as the technology changes constantly, there will be a need to change and adopt the most suitable technology. While inputs, outputs, and outcomes can be predicted in other projects, ICT and SchoolNet projects need to consider these rapid changes and adjust implementation accordingly.²⁷ The proposal takes into consideration the Project's complexity and the limited capacity in MESC, and has allocated adequate time and contingency for appropriate adjustments.

²⁷ This flexibility will allow the Project to respond to evolving opportunities such as (i) relocating the network operating center and the data center to MESC's new headquarters when it is ready and thereby reducing hosting costs paid to an Internet service provider, (ii) changing the Internet service provider to AusAID's Pacific Sky Project if it is ready and cost effective, and (iii) joining the National University of Samoa if it expands its IT services to become the national education network. Opportunities such as these will be monitored.

48. **Consolidation with ESP II.** To avoid a fragmentary and isolated approach, the project design is built on the extensive sector review undertaken for the ESP II development and administrative framework and the recent SchoolNet pilot project reports. The Project will be implemented using the same ESP II implementation structure and in coordination with the ESP II implementation schedule as part of a SWAp. The Project will therefore complement ESP II activities and contribute to achieving ESP II outcomes. To avoid any overloading of MESC capacity in implementing ESP II, the Project will provide consulting support to enable MESC to carry out project activities. However, to ensure that there is a clear separation in the use of project funds, a sound accounting system will be established.

49. **Participatory Approach.** The Project adopts a participatory approach and close coordination with all bilateral and multilateral agencies as well as with nongovernment organizations, civil society, public and private school teachers, and church groups. The potential capacity of ICT to enhance learning, and the Government's enthusiasm for expanding ICT-driven learning opportunities, have been well supported by outcomes of consultative workshops and surveys during implementation of the SchoolNet pilot. Consultations were held with schools and communities through site visits and workshops during the implementation of the SchoolNet pilot. In general, the schools and communities were very committed; communities considered the education of their children a high priority and were keen to provide them with access to ICT opportunities.

E. Cost Estimates

50. The Project investment cost is estimated at \$6.90 million equivalent, including taxes, duties, and contingencies. Project cost estimates are summarized in Table 1 and are detailed in Appendix 5 and Supplementary Appendix E.

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Improving quality of teaching and learning	1.14
2. Improving education access through information and communications technology	3.87
3. Establishing the Community Access Program and partnership development	0.36
4. Strengthening education management and coordination and improving analyses of economic efficiency, equity, and sustainability	0.85
Subtotal (A)	6.22
B. Contingencies^c	0.65
Total (A+B)	6.90

^a Includes taxes and duties of \$0.58 million.

^b In mid-2007 prices.

^c Physical contingencies are computed at 6%. Price contingencies are computed at an average of 0.8% on foreign exchange costs and 3.6% on local currency costs and include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

F. Financing Plan

51. The Government has requested a grant of \$5.90 million from ADB's Special Funds resources to finance 85% of the total project cost. The Government will finance the remaining \$1.0 million (15%). The financing plan is in Table 2.

Table 2: Financing Plan
(\$ million)

Source	Total	%
Asian Development Bank	5.90	85
Government ^a	1.00	15
Total	6.90	100

^a Government counterpart financing of \$1.0 million comprises taxes and duties, recurrent costs, and associated contingencies.

Source: Asian Development Bank estimates.

G. Implementation Arrangements

1. Project Management

52. MOF will be the Executing Agency for the Project, and MESC the Implementing Agency. The existing ESP II Education Steering Committee will be responsible for the Project and may co-opt members to include other main project stakeholders and so provide strategic direction and oversight. The Steering Committee will meet as necessary but not less than once every 6 months. The Technical Advisory Committee, comprising representatives from the Ministry of Communications and Information Technology, Samoan Information Technology Society, MESC, National University of Samoa, and local IT companies, will be established to advise the Steering Committee on technical matters. A SchoolNet project manager with appropriate qualifications will be selected from within MESC or appointed by MESC to (i) assist MESC division heads in annual planning to ensure SchoolNet activities are not jeopardized at the expense of ESP II or vice versa; (ii) assist the MESC AMU in liaising with local ICT companies, Internet service providers, and the schools and communities, as well as with procurement activities; (iii) assist the Secretariat with all record keeping, report developments, and follow up on reporting requirements; (iv) visit all project sites to test installation and to officially hand over to schools; and (v) assist the manager of AMU with the assets register.

53. MESC will have overall responsibility for managing project implementation, monitoring and evaluation, and reporting of progress. At the operational level, the Project will be managed by the MESC Core Executive, comprising the chief executive officer (CEO), assistant CEOs, and AMU manager, and supported by the Office of the CEO, the SchoolNet project manager, and the ESP II program coordinator. All components of the Project will be implemented through the existing MESC organizational structure and in coordination with the ESP II implementation structure. Consulting services, including a project management adviser, will be provided to strengthen the capacity of the Core Executive to deliver the Project. The ESP II Secretariat and SchoolNet project manager will coordinate with the project management adviser. Consulting services, including a project management adviser, will be provided to strengthen the capacity of the Core Executive to deliver the Project. The ESP II coordinator and SchoolNet project manager will be supported by the project management adviser. The proposed management structure is attached as Appendix 6.

2. Implementation Period and Process

54. The Project will be implemented in two stages over 5 years and completed by December 2012. In Stage 1, the Government will prepare the medium-term expenditure framework (MTEF). It will also develop monitoring and evaluation indicators and collect comprehensive baseline data, including quantified measures of unit costs, equity, and efficiency, and measures of secondary student competence in at least six academic subjects (e.g., mathematics and science subjects) in line with ESP II, for ICT support. In addition, a system will be implemented to conduct tracer studies of secondary school graduates, to be conducted annually for the life of the Project. The Government will assign schools to one of the three groups for phased implementation, matching schools so that the three groups are comparable.²⁸ During this stage, which will last about 1 year from project effectiveness, MESC and MOF will also conduct an updated sustainability analysis to ensure that assumptions are sound and that the Government is committed to efficiency reforms and to maintaining support at levels that will bring long-term financial sustainability. In particular, the analysis will review the recurrent cost implications of EPS II and SchoolNet.

55. Stage 2 will be contingent upon the successful completion of all activities, including a sustainability analysis. Based on the results, the scope of Stage 2 implementation may be adjusted to ensure that the recurrent cost implications of the Project are consistent with the Government's sustainability projections. All activities in Stage 1 will be successfully completed prior to implementation of Stage 2, which will include (i) the procurement, installation, and commissioning of ICT equipment for the learning centers and MESC data center; (ii) the procurement, installation, and commissioning of Internet connection for the learning centers and MESC data center; (iii) training for CMAD and SOD to develop and acquire electronic courseware; (iv) training teachers and technical staff; (v) monitoring and fine tuning the learning centers' technical, educational, and financial performance; and (vi) establishing and monitoring community access to the learning centers. Stage 2 will include ongoing monitoring and evaluation of the impact of the Project, including annual assessment of its impact on at least six academic subjects as included in Stage 1. Detailed annual work programs for 2009, 2010, 2011, and 2012 will be developed in conjunction with ESP II based on progress to date and other developments—for example, connection availability. The rollout of equipment and connectivity will be done in 3 phases for reasons of logistics and capacity. An implementation schedule is given in Appendix 7.

3. Procurement

56. All goods and services financed under the Project will be procured in accordance with ADB's *Guidelines for Procurement* (2007, as amended from time to time). Any contract costing more than \$1 million will be awarded following ADB's international competitive bidding procedures. All other contracts under the Project will be awarded following national competitive bidding (NCB) and shopping (for packages under \$100,000),²⁹ in accordance with government procedures acceptable to ADB. Before the start of NCB procurement, ADB and the Government

²⁸ Constructing comparable groups will involve, among other things, getting approximately equal representation of rural and urban, Upolu and Savai'i, and advantaged and disadvantaged schools, as reflected in access to public resources in the equity analysis. Schools will also be matched on student baseline characteristics such as gender, scores on the grade 8 exam, performance on new baseline assessment instruments, and experience of graduates in the Stage 1 tracer study. The four secondary schools that participated in the SchoolNet pilot will be excluded from evaluation.

²⁹ There are enough capable suppliers in Samoa to provide full competition, as was demonstrated during the SchoolNet pilot phase.

will review the Government's procurement procedures to ensure consistency with ADB requirements. Any necessary modification or clarifications to the Government's procedures will be documented in a revised procurement plan. The World Bank assessed Samoa's procurement procedures and legislation in 2003.³⁰ NCB procedures are justified by the need for local after-sale support and to build local IT capacity in general. The relevant sections of ADB's *Anticorruption Policy* (1998, as amended to date) will be included in all documents and contracts. The procurement packages are indicated in the procurement plan attached as Appendix 8.

4. Consulting Services

57. The Project will provide about 72 person-months of international and 108 person-months of national consulting services. All international and associated national consultants will be selected and recruited by MOF in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). Most international consulting services will be provided through one firm. The main areas of expertise will be e-education, ICT in education, communication engineering, education and management, social development, education evaluation and assessment, educational economics, and project management. The Project will use the quality-based selection method for recruiting the firm. Consultants will be requested to submit a full technical proposal. There is provision for individual consultants to be recruited for the project management adviser position and for unallocated person-months as needed during the life of the Project. The project management adviser will report directly to the ESP II Secretariat through the ESP II coordinator. Given the highly complex technical requirements and extensive capacity-building nature of the Project, much international expertise is needed in key areas. Sufficient qualified expertise required for national consulting services is available in Samoa, as demonstrated by the SchoolNet pilot and ESP II. The outline terms of reference are in Appendix 9, with detailed terms of reference in Supplementary Appendix F.

5. Advance Contracting

58. The Government requested ADB to approve advance contracting for consulting services. MESOC may proceed with the selection, but not contracting, of consultants before the grant is declared effective. The advance action will be undertaken in accordance with ADB's *Guidelines on the Use of Consultants*. ADB advised the Government that approval of the advance contracting does not commit ADB to financing the ensuing Project.

6. Governance and Anticorruption Measures

59. ADB's *Anticorruption Policy* was explained to and discussed with the Government. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, and coercive practices relating to the Project. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the grant regulations and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project shall include provisions specifying the right of ADB to audit and examine the records and accounts of the Executing Agency and all contractors, suppliers, consultants, and other service providers as they relate to the Project.

³⁰ The World Bank report, *Operational Procurement Review*, concluded that in general Samoa's procurement procedures were aligned with World Bank procurement guidelines and that the procurement risk could be considered average.

60. ADB and World Bank assessments of the Government's financial management systems and procedures undertaken in 2004 and 2005 concluded that they met ADB requirements. The systems and procedures proposed for the Project were reviewed earlier in 2007, and these also meet ADB requirements.³¹ A summary is presented in Supplementary Appendix G.

61. A sector governance and anticorruption assessment was conducted in parallel with the Project's preparation, during which risks and associated mitigating actions were identified and discussed with the Government as indicated in Appendix 10. The assessment focuses on three thematic areas: financial management, procurement, and anticorruption. As a consequence of the performance improvements that Samoa has achieved, many of the risks commonly faced in the education sector in developing countries had little or no applicability. Samoa has embraced the Anti-Corruption Initiative for Asia and the Pacific of ADB and the Organisation for Economic Co-operation and Development, and it has subjected its procurement and financial management systems to rigorous assessments that have helped the Government achieve internationally acceptable standards. In short, it was found that the overall likelihood of risks in each of the targeted thematic areas was medium to low, and actions are being taken by the Government to mitigate these risks.

62. Still, to deter corruption and increase transparency further, the Project will establish (i) a project website to disclose information about project implementation and (ii) a grievance redress mechanism to ensure greater accountability. The former will provide updated and detailed information on project implementation. The latter will be set up to receive and resolve complaints and to act upon stakeholders' reports of irregularities on project-related matters. MOF will widely publicize the existence of this mechanism.

7. Disbursement Arrangements

63. The grant proceeds for the proposed Project will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time). To facilitate project implementation and fund flow, an imprest account will be set up in a bank acceptable to ADB. The imprest account will be managed by MOF. The initial advance to be deposited in the account will not exceed either 6 months of estimated expenditures to be financed from it or 10% of the grant, whichever is lower. For the large contracts under the Project, direct payment procedures will apply. If the Government initially funds eligible expenditures from its own resources, reimbursement procedures will be used. To expedite fund flow and simplify documentation processing, the statement of expenditures (SOE) procedure will be used for the liquidation and replenishment of the imprest account and the reimbursement of eligible expenditures not exceeding \$50,000 per individual payment. Payments in excess of the SOE ceiling will be reimbursed, liquidated, or replenished upon full documentation.

8. Accounting, Auditing, and Reporting

64. MESC will maintain separate records and accounts for all expenditures to be financed by the Project in accordance with sound accounting principles. They will specify the expenditures for all activities and identify all expenditures to be financed by the Project. Project accounts, including financial statements, SOEs, and imprest account records, will be audited at the same time as those of ESP II, and by the same auditor, who will be acceptable to ADB and ESP II

³¹ ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

cofinanciers AusAID and NZAID.³² The auditor's report, and copies of the certified accounts and related financial statements, including compliance with project covenants and the use of the imprest accounts, will be submitted to ADB in English not later than 6 months after the end of the fiscal year to which they relate. A separate auditor's opinion on the use of the imprest account and SOE procedure will be included in the audit report.

65. The MESC Secretariat, in collaboration with and assisted by the SchoolNet project manager, will be responsible for producing regular SOE and quarterly project progress reports on all implementation activities in conjunction with ESP II SOE and Project Performance Report. Copies of the reports will be forwarded by MOF to ADB and will be shared with AusAID and NZAID. Within 3 months after physical completion of the Project, MESC will submit to ADB a project completion report in conjunction with the ESP II completion report, which will be shared with AusAID and NZAID. ADB's policy on the submission of audited accounts, which covers failure to submit audited accounts and financial statements by due dates, has been explained to the Government. If submission of a financial statement is delayed by more than 6 months, ADB may not approve new contract awards. If the delay is by more than 12 months, grant disbursements may be suspended or the grant may be canceled.

9. Project Performance Monitoring and Evaluation

66. A set of indicators for monitoring and evaluating impact, outcomes, and outputs will be developed by MESC PPRD in coordination with CMAD and SOD during Stage 1 of the Project. MESC will implement, monitor, and evaluate the activities and outputs of the project regularly and the outcomes of the Project after completion, in accordance with the schedule and terms of reference to be agreed upon by the Government. Performance evaluations will use qualitative and quantitative measures to examine and analyze the impact of project ICT interventions on learning outcomes, as can be measured by standardized ICT assessment where available (Supplementary Appendix H).

10. Project Review

67. The Government and ADB, in collaboration with AusAID and NZAID, will conduct two review missions during each calendar year for the Project, with ESP II. To take advantage of quarterly reporting, they will be fielded shortly after the second and fourth quarters. Each review will include an examination of budgetary allocations, operation and maintenance costs, staffing and other incremental recurrent costs, implementation arrangements, and achievements under the Project. The review includes assessing progress in each component, identifying difficulties and constraints, and determining ways to overcome them. MESC management, specifically the assistant CEOs, will be a primary source of information for these reviews. In addition, the Government and ADB will jointly conduct a midterm review of the Project with ESP II. This will (i) review the scope, design, and project implementation arrangements; (ii) assess performance against targets and benchmarks; (iii) review lessons and experiences with implementation of each component; (iv) review compliance with the grant agreement; and (v) recommend any changes required in project implementation.

³² The Project should be carefully implemented to strengthen the harmonization process and avoid overburdening the Government with various reporting requirements. Therefore, procurement, disbursement, and reporting for this Project are aligned with the ESP II Consolidated Funding Arrangement signed by ADB, AusAID, NZAID, and the Government. ADB will assess Government procurement for further aligning with the Government's system.

IV. PROJECT BENEFITS, IMPACTS, ASSUMPTIONS, AND RISKS

A. Benefits

68. CMAD, SOD (21 school review officers), and the IT Unit will benefit from capacity building and be able to develop and use e-training materials and to embed ICT in education as a learning and teaching tool. The Project will benefit about 15,000 secondary school students and 800 teachers. It will also benefit secondary school teachers through the use of basic productivity applications (word processing, spreadsheets, databases, graphics, presentation, etc.) and of e-learning materials. The ability of all secondary teachers with ICT competencies and skills to transfer them to and inspire students will likely benefit future generations of students.

69. All 42 government and mission schools will have learning centers, and the surrounding communities will have access to them after school hours. Access to learning through ICT may well provide the learning environment and systems necessary to encourage children to remain in school and stimulate rural students to acquire skills required by the curriculum and so enjoy more opportunities for further education and training and become better able to perform in the formal labor market and/or informal income generation.

70. **Impact on Poverty and Gender.** Improved access to better education and training through ICT will increase both the education and ICT skills of secondary school students. By targeting all secondary schools, gains should flow into the economy of every district. Male participation and completion rates in secondary schools, a current problem, will likely improve. The community access aspect of the project will provide opportunities for rural communities, including females, to learn and share experiences in overcoming poverty and improving the quality of life. The Project is likely to enhance the employment prospects and earnings of Samoans who emigrate and, as a consequence, increase remittances—thereby furthering poverty reduction. The summary poverty reduction and social strategy is in Appendix 11.

71. The Project will benefit Samoa, regional neighbors, and development partners by providing the first comprehensive experience of the impact of nationwide ICT access on secondary student achievement and community development. In addition, the Project will provide Internet access in all of Samoa's 22 districts, thereby lowering the costs of extending services to primary schools and other institutions in the future.

72. **Economic Benefits and Financial Sustainability.** In Samoa, participation in secondary education is a prerequisite for entry into the formal labor market. In 2000, a study found that 93% of the private sector workforce had a secondary education. Given the size of remittances by Samoans working abroad, educational qualifications with computer skills will assist with successful emigration and employment. ICT education will help geographically and financially disadvantaged groups. Analysis of data developed in the quasi-experimental design will provide a basis for assessing the impact of ICT-enhanced learning relative to its costs. Further analysis of returns to education may be possible through secondary analysis of household income and expenditure data to estimate the rate of return to schooling (i.e., the Mincerian earnings function) and to assess the impact of remittances on educational attainment.

73. Appendix 12 presents a preliminary analysis of financial sustainability using the total-cost-of-ownership approach. The analysis concludes that incremental expenditure requirements from 2013 will be about \$550,000 per annum. These estimates assume that (i) user charges will be collected from after-hour usage of learning centers, (ii) a universal services fund will be

established, and (iii) there will be SchoolNet-related efficiency gains. The analysis does not make a conclusion as to the funding for these incremental expenditures. In that connection, Component 4 includes support for the preparation of a sectoral MTEF. The MTEF exercise will, among other things, quantify potential ESP II efficiency gains and revisit the SchoolNet sustainability estimates presented in Appendix 12. Preparation of the MTEF will involve the identification, prioritization, and agreement of sectoral priorities and associated expenditures. The satisfactory completion of a robust and agreed MTEF will be a prerequisite for moving to Stage 2 of the project. See Supplementary Appendix I for a detailed sustainability analysis.

B. Risks

74. **Environment and Social Safeguards.** ICT equipment will be installed in existing secondary schools, and no additional construction will be required by the Project. The Project will not finance any construction for communication towers. As such, the Project will not have any resettlement issues. In the event of unforeseen land acquisition and resettlement, the Government will inform ADB and prepare resettlement plans in accordance with ADB's *Policy on Involuntary Resettlement* (1995). The awarding of civil works contracts will be subject to ADB review of resettlement plan(s). The disposal of obsolete equipment and disposables will follow Government policies and guidelines as applicable. The Project will help the Government develop these policies further, as needed.

75. **Uncertain Financial Sustainability.** New initiatives such as ESP II, SchoolNet, and other projects have downstream expenditure implications. These incremental recurrent expenditures must be considered in the broader context of medium-term sectoral expenditure priorities. A two-stage project design will mitigate the risk that the Project may not be financially sustainable. The Project will support the Government to prioritize education expenditures, including SchoolNet-related expenditures, in an MTEF context. The Project will not move to Stage 2 until a satisfactory sectoral sustainability analysis is prepared during Stage 1.

76. An important caveat is that, to date, MESC has made only limited progress in collecting and analyzing unit cost data and information on efficiency or in constructing baseline indicators of equity and efficiency. Nor has MESC continued work on a sustainability projection model with MOF. The key to sustainability for the Project, ESP II, and the sector will lie in MESC and MOF taking ownership of efficiency and sustainability issues. The Project can provide resources to MESC to move this work forward.

77. **Lack of Managerial Capacity to Support Schools and Teachers.** This may be a risk, but the pilot schools are all still operating well under the leadership of school principals. The Project has included significant training and technical assistance to build management capacity in MESC staff at all levels. The project design has adopted a long-term mentoring approach to ensure this capacity is sufficiently developed by the end of the Project.

78. **Lack of Interest from the Community.** Community reluctance is twofold. First, limited understanding of ICT systems can cause anxiety because of fear of ready access to unsuitable websites, of breaking the equipment, or of not have the necessary skills to use the learning centers. These fears can be addressed through well-focused advocacy and training activities. Second, the uncertainty of recurrent costs and the lack of technical capacity to maintain the system inhibit community interest. These can be mitigated by providing sufficient training to monitor and manage costs, securing government and private sector support to develop business opportunities to recover costs, and securing a long-term maintenance agreement with suppliers and/or nongovernment organizations such as the Samoan Information Technology Society.

V. ASSURANCES AND CONDITIONS

A. Specific Assurances

79. In addition to the standard assurances, the Government, MOF, and MESC have given the following specific assurances, which will be incorporated into the legal documents.

- (i) The Government will provide counterpart funds for project implementation on time. MOF will make timely submission of annual budgetary appropriation requests to Cabinet and MOF will ensure prompt disbursement of appropriated funds during each year of project implementation to MESC.
- (ii) Within 9 months of the effective date, MESC will create a project website to disclose information about various matters on the Project, including procurement. With regard to procurement, the website will include information on the list of participating bidders, name of the winning bidder, basic details on bidding procedures adopted, amount of contract awarded, and the list of goods/services procured.
- (iii) Within 9 months of the effective date, MESC will establish a grievance redress mechanism to resolve complaints/grievances or act upon reports from stakeholders on misuse of funds and other irregularities. A task force will (a) review and address grievances of stakeholders of the Project, in relation to either the Project, any of the service providers, or any person responsible for carrying out any aspect of the Project; and (b) set the threshold criteria and procedures for handling such grievances, for proactively and constructively responding to them, and for providing the stakeholders with notice of such a mechanism.
- (iv) Although no significant environmental impacts were identified, the operation of school facilities and the disposal of obsolete equipment undertaken under the Project will be implemented in line with the Government's environmental laws and regulations and ADB's *Environment Policy* (2002).
- (v) The Government and MESC will ensure that construction of new school facilities, including construction of communication towers, will be carried out at existing schools or MECS land. In the event no sufficient existing land is available and new land acquisition might be needed, the Government will inform ADB and prepare resettlement plans in accordance with ADB's *Policy on Involuntary Resettlement* (1995). The Government will ensure that (a) resettlement plans will be prepared in consultation with affected people and disclosed to affected people prior to forwarding to ADB for approval, and (b) ADB review and approval of the resettlement plans will be a condition for award of civil work contracts.
- (vi) The Project will be implemented in two stages. The Government and MESC will ensure all activities prescribed under Stage 1, including the requirement for an agreed financial sustainability analysis for the Project as part of the MTEF, will be successfully completed before implementation of Stage 2.
- (vii) The Government and MESC will ensure that each of the participating schools that will receive the learning center package will not increase its school fees or impose additional fees for the use of ICT. In the event an increase is required, the participating schools shall obtain approval from MESC, in consultation with ADB.
- (viii) Within 12 months of the effective date, the Government will prepare and submit a report satisfactory to ADB that includes: (a) six academic subjects identified for support under the Project and schools assigned to the three implementation groups that correspond to phases in Stage 2 based on the agreed criteria, (b) baseline data for ICT competencies of students, teachers and MESC staff, and

- (c) projections of the financial sustainability of the education sector, including the recurrent cost implications of EPS II and the Project.
- (ix) Within 18 months of the effective date the Government will have SchoolNet management sub-committees officially established and operational in all mission and secondary schools' management committee.
 - (x) The Government and MESC will ensure that the ICT training, including the minimum ICT competency training, is made mandatory for the teachers to ensure that the teachers have the minimum ICT competencies.
 - (xi) The Government and MESC will ensure that at least two staff shall be recruited or appointed to the MESC IT Unit. The staff will receive training to manage the expanded network of schools and provide IT support services to all Project schools. Furthermore, MESC will appoint at least two teachers in each school and ensure that they undergo the training for SchoolNet administrators.
 - (xii) Within 12 months of the Effective Date, the Government and MESC will develop a plan and policies for the universal service fund, acceptable to ADB, to ensure that surplus capacity and budgetary resources are made available to the education sector in order to provide an affordable education network and MESC shall promptly implement the plan.
 - (xiii) The Government will ensure that the Project accounts, financial statements, SOE and Imprest Account will be audited at the same time as the audit for ESP II and by the same auditor engaged for ESP II. The appointed auditor will be acceptable to ADB, AusAID and NZAID.
 - (xiv) The Government and MESC will ensure that all necessary reports, including the quarterly reports and the annual reports are prepared in conjunction with ESP II. The Government will submit the reports to ADB and the reports will be shared AusAID and NZAID.

B. Conditions for Grant Effectiveness

80. Prior to grant effectiveness, the Government will have issued a decree or an order that stipulates that the existing Steering Committee for ESP II will also be the Steering Committee for the Project.

C. Conditions for Withdrawals

81. No withdrawals shall be made from the Grant Account until,
- (i) The Government has appointed the Project Manager in accordance with paragraph 52 of this document; and
 - (ii) The Government has established the Technical Advisory Committee in accordance with paragraph 52 of this document.

VI. RECOMMENDATION

82. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding the equivalent of \$5,900,000 to the Independent State of Samoa from ADB's Special Funds resources, for the SchoolNet and Community Access Project, on terms and conditions substantially in accordance with those set forth in the draft Grant Agreement presented to the Board.

Haruhiko Kuroda
President

16 November 2007

DESIGN AND MONITORING FRAMEWORK^a

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanism	Assumptions and Risks
<p>Impact</p> <p>A more equitable and effective ICT-enhanced education system and promotion of life-long learning</p>	<p>By 2015</p> <ul style="list-style-type: none"> • ICT in education and e-learning institutionalized as reflected in higher retention and utilization rate by gender. • Improve employment rates for high school graduates by 20%. • Improved system equity reflected in Gini coefficient of resource allocation and/or benefit incidence analysis. 	<ul style="list-style-type: none"> • Ministry of Education, Sports, and Culture (MESC) statistics • National University of Samoa and University of the South Pacific data and reports • United Nations human development index report • Labor market survey • Equity measures in MESC data system 	<p>Assumption</p> <ul style="list-style-type: none"> • Government develops and implements required policies for sustainability <p>Risk</p> <ul style="list-style-type: none"> • Lack of commitment from the Government and civil society to support SchoolNet from the financial, managerial, and policy viewpoints
<p>Outcome</p> <p>1. Enhanced learning outcomes for secondary students and improved knowledge sharing through ICT.</p>	<p>By 2013</p> <ul style="list-style-type: none"> • 70% of students in secondary schools have improved competencies in at least 3 academic subjects, relative to 2008 baseline data, and 50% of community members have ICT competencies to communicate and share knowledge. • 70% of teachers in secondary schools use ICT to teach cognitive skills and use interactive, student-centered, and authentic learning approaches. • E-learning materials for six secondary subjects developed, embed in the respective school curriculum, and disseminated to all secondary schools. 	<ul style="list-style-type: none"> • Training reports, project progress and M&E reports, MESC statistical reports, performance appraisal reports, student achievement data • Pre- and post-intervention surveys, school reports • Analysis of data from phased implementation of Project in experimental design 	<p>Assumptions</p> <p>Sufficient resources are available for</p> <ul style="list-style-type: none"> • recurrent costs; • human resource recruitment, development, and retention; • future IT capital investments; and • access to e-learning tools and materials. <p>• Communities provide sufficient support to this initiative.</p> <p>Risk</p> <ul style="list-style-type: none"> • Uncoordinated ICT projects increase fragmentation and inefficiency in ICT and education sectors
<p>Outputs</p> <p>1. Improved quality of teaching and learning through e-learning materials and approaches</p>		<ul style="list-style-type: none"> • Procurement and installation completion and sign-off reports from schools • MESC reports; portal information and other 	<p>Assumptions</p> <ul style="list-style-type: none"> • MESC has capacity to work with cross-cutting activities • School communities form SchoolNet

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanism	Assumptions and Risks
<p>1.1 Developed e-curriculum capacity and distribution</p> <p>1.2 Developed e-teaching capacity</p> <p>1.3 Strengthened management capacity</p>	<ul style="list-style-type: none"> • Within 18 months of Stage 2 commencement, CMAD staff source, adopt, and disseminate e-curriculum and e-learning material for three secondary subjects, and within 36 months the remaining three subjects, to 42 secondary schools. • Within 12 months of Stage 2 commencement, SOD and NUS staff adopt and deliver e-teacher training embedded in student-centered and interactive approaches; within each subsequent 12 months 800 teachers in schools provided with equipment are using ICT tools in interactive, project based, authentic teaching and learning processes; and within 36 months 15,000 secondary school students demonstrate enhanced problem solving, research, and cognitive skills such as reasoning and critical analysis. • Within 12 months of project effectiveness, staff development appraised and cost estimates analyzed. • Within 24 months of Stage 2 commencement, 21 SRO are using e-teaching methods and materials and 33% of secondary teachers and principals are using e-teaching methods and managing the learning centers in each year (2009–2011), aligned with deployment of equipment and connectivity. 	<p>training materials developed</p> <ul style="list-style-type: none"> • Training reports; project progress and M&E reports • School pre- and post-intervention surveys; school reports 	<p>implementation committees</p> <p>Risks</p> <ul style="list-style-type: none"> • ESP II and SchoolNet Project are not fully coordinated. • School management capacity may be lacking. • Stakeholders may not be fully coordinated and in agreement.
<p>2. Improved education access through ICT</p> <p>2.1 Installed SchoolNet equipment and connectivity</p> <p>2.2 Integrated SchoolNet pilot</p> <p>2.3 Extended network to connect MESC</p> <p>2.4 Strengthened data center and portal</p>	<ul style="list-style-type: none"> • Within 48 months of the Project effectiveness all 42 secondary schools will have learning centers fully operational. • Within 6 months of Stage 2 commencement, all 5 pilots enhanced, based on lessons learned and the current technical design. • Within 18 months of Stage 2 commencement, relevant MESC divisions and units set up and connect the SchoolNet, and division staff are using ICT applications. • Within 12 months of Stage 2 commencement, upgraded data center and portal are operating, and within 36 months 70% of MESC staff and teachers are using the ICT facilities 	<ul style="list-style-type: none"> • Training reports, project progress and M&E reports, and MESC reports • School pre- and post-intervention surveys, school reports • Completion and sign-off reports from schools, data center performance reports 	

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanism	Assumptions and Risks
2.5 Strengthened MESC ICT capacity	<ul style="list-style-type: none"> • Within 18 months of Stage 2 commencement, policies are developed and operational, and additional IT Unit staff are appointed to manage and implement IT support. 		
<p>3. Established partnerships to support SchoolNet and Community Access Program (CAP)</p> <p>3.1 Community awareness of SchoolNet conducted</p> <p>3.2 Management of SchoolNet and Community Access Program (CAP) established</p> <p>3.3 Signed agreement on partnerships</p>	<ul style="list-style-type: none"> • By fifth year of the Project, 80% of the participating communities are aware of SchoolNet and CAP program and benefits, and 60% are using basic ICT applications. • Within 6 months of Stage 2 commencement, SchoolNet committees are formed, appointed, and fully operational. • Within 9 months of Stage 2 commencement, agreements are reached with the Government on the universal services fund, with other government agencies on cost sharing, and with communities and other users on cost recovery. 	<ul style="list-style-type: none"> • MESC reports, project progress and M&E reports • Government and/or MESC documents • Policy report and signed agreements between communities and MESC, Government and private ICT providers, and among Ministry of Finance, MESC, and Ministry of Communication, Information, and Technology 	
<p>4. Strengthened education management through ICT systems</p> <p>4.1 Strengthened data collection and analysis</p> <p>4.2 Evaluated impact, developed MTEF, financial framework, and coordinated reporting, auditing, and reviewing.</p>	<ul style="list-style-type: none"> • Unified data system established and operational within 18 months of Stage 2 commencement . • Within 12 months of project effectiveness, (i) MTEF and financing framework developed, (ii) system for projecting and monitoring progress toward financial sustainability in place, (iii) M&E indicators developed and implemented, (iv) baselines and efficiency studies designed and implemented, and (v) ESP II reports and reviews incorporate SchoolNet. 	<ul style="list-style-type: none"> • ADB review mission reports, MESC reports • Media reports, pre- and post-intervention survey • Validated MESC statistical data, project progress and M&E reports 	

Activities with Milestones	Inputs
<p>Component 1</p> <ul style="list-style-type: none"> • Consultant recruited and fielded within 3 months of project effectiveness. • Detailed design and bidding document completed within 6 months of project effectiveness. • Within 18 months of Stage 2 commencement, CMAD staff trained and source, develop, and disseminate e-curriculum and e-learning material. • Within 24 months of Stage 2 commencement, SOD and National University of Samoa staff fully trained in developing and delivering e-teaching materials and methods. • Within 24 months of Stage 2 commencement, CMAD and SOD train teachers, principals, and school review officers to implement e-teaching methods. • Within 6 months of equipment commissioning, principals and administrators trained and manage the network and equipment. • Within 6 months of project effectiveness, M&E indicators and procedures for monitoring, data analysis, and reporting developed and implemented. 	<p>ADB \$1,072,000 Training and workshops \$285,000 Content development \$322,000 Consulting services \$465,000</p> <p>Government \$78,000 Taxes and duties \$78,000</p> <p>Contingencies \$100,500</p>
<p>Component 2</p> <ul style="list-style-type: none"> • Consultant recruited and fielded within 3 months of project effectiveness. • Within 3 months of project effectiveness, implementation consultants selected and fielded. • Within 6 months from Stage 2 commencement, detailed design prepared and agreed. • Within 24 months of Stage 2 commencement, at least 40% of the selected schools will have learning centers operational. • Within 24 months of Stage 2 commencement, formal agreement for an education network with dedicated international gateway. • Within 36 months of Stage 2 commencement, all the selected schools have learning centers operational. • Existing pilots enhanced based on lessons learned within 6 months of Stage 2 commencement. • Within 18 months of Stage 2 commencement, relevant MESC divisions and units set up and connected to SchoolNet. 	<p>ADB \$3,127,400 IT equipment and network \$2,073,800 Vehicle \$38,600 Training and workshops \$150,000 Consulting services \$865,000</p> <p>Government \$746,300 Counterpart staff, taxes, and duties</p> <p>Contingencies \$433,100</p>
<p>Component 3</p> <ul style="list-style-type: none"> • Consultant recruited and fielded within 3 months of project effectiveness. • By end of fifth year of the Project, 80% of the participating communities are aware of SchoolNet and CAP program and benefits. • Within 6 months of Stage 2 commencement, SchoolNet committees formed and operational. • Within 12 months of Stage 2 commencement, management plans for CAP developed. • Within 12 months of Stage 2 commencement, agreement reached with other government agencies, communities, and users. 	<p>ADB \$360,000 Training and workshops \$50,000 Consulting services \$310,000</p> <p>Government nil</p> <p>Contingencies \$41,900</p>
<p>Component 4</p> <ul style="list-style-type: none"> • Consultant recruited for EMIS and efficiency studies within 3 month of project effectiveness. • Unified data system established and operational within 18 months of Stage 2 commencement. • M&E indicators developed and implemented, and baseline studies completed within 8 months of Stage 2 commencement. • MTEF and financing framework developed and system for projecting and monitoring progress toward financial sustainability in place within 12 month of project effectiveness. • PPRD supported in strengthening and, within 12 month of project effectiveness, implementing EMIS. ESP II reports and reviews incorporate SchoolNet Project. 	<p>ADB \$788,000 Training and workshops \$100,000 Consulting services \$628,000 Operation and maintenance \$60,000</p> <p>Government \$60,000 Operation and maintenance</p> <p>Contingencies \$92,800</p>

CAP = Community Access Program; CMAD = Curriculum Materials and Assessment Division; EMIS = education management information systems; ESP II = Education Sector Project II; ICT = information and communication technology; IT = information technology; M&E = monitoring and evaluation; MTEF = Medium-Term Expenditure Framework; SOD = School Operations Division; PPRD = Policy, Planning and Research Division.

^a As reliable baseline data are not available to measure performance indicators, the project design included data collection under Stage 1 of the Project, and the design and monitoring framework will be revised accordingly.

EDUCATION SECTOR AND SUBSECTOR ANALYSIS

1. **Overview.** Samoa is an independent Pacific island country with a small but open economy. While the economy continues to rely heavily on external assistance in the form of grants and soft loans, the cost of servicing external debt has been declining steadily, decreasing by 11% between fiscal year (FY) 2004 and FY2005. Lack of opportunity and income vulnerability, often exacerbated by external economic shocks and natural disasters, contribute to hardship in rural areas, particularly on the island of Savai'i. Despite vulnerability to external shocks, Samoa has experienced stability and sustained economic growth over the past decade. The gross domestic product (GDP) increased by 4%, on average, annually between 1993 and 2007. Poverty is not regarded as a problem; private remittances from the 35% of the population living abroad are substantial (17% of gross national income). External aid represented 11.5% of gross national income in 2005. The 1999 Pacific Human Development Report ranked Samoa 7th among 15 developing island economies in the region, while it was ranked 75th globally in the latest 2006 Human Development Report.¹ The Strategy for the Development of Samoa for 2005–2007 was completed in January 2005 and includes a commitment to restrain the annual overall budget deficit to no more than 3.5% of GDP and to hold annual inflation rates to less than 3.0%.

2. Education is a priority area of the Government. The second long-term Strategic Policies and Plan July 2006–June 2015 of the Ministry of Education, Sports, and Culture's (MESC) stresses equity, quality, relevance, efficiency, and sustainability as central objectives. The sector has shown significant achievements including an adult literacy rate of 98.7%, the highest in the region. Despite many positive achievements, the quality and efficiency of education remain disappointing. Variations in student's learning achievement and opportunities to learn remain significant, particularly between urban and rural areas. More than 25% of the students enrolling in primary education do not complete the 8-year program. In 2006, the dropout rate was 7% for grades 1–2, 5% for grade 8, 18% for grades 10–11, 3% for grade 12, and as high as 41% for grade 13. Repetition rates at grades 1, 8, 11, 12, and 13 are high and largely unchanged since 1997. In 2006, 88% of primary students progressed to the lower secondary level and 91% progressed to the upper secondary level, but only 53% of 12th graders advance to grade 13.

3. The education system in Samoa consists of 8 years of compulsory primary education, 5 years of secondary education, and 4 years of higher education. National examinations are held at three levels in primary (years 4, 6, and 8) and year 12 in secondary. For year 13, a regional examination determines access to the first year of university. MESC is responsible for policy formulation, guidance, and supervision of all government schools and institutions. The chief executive officer, with assistance from heads of the eight divisions and the Information Technology (IT) Unit, manages the daily operation of MESC. Significant efforts have been made to strengthen institutional and management capacity. Despite major undertakings, weaknesses remain, hampering efforts to improve the efficiency and effectiveness of education service delivery. Village committees run most primary and secondary schools and are responsible for setting, collecting, and spending school fees; constructing and maintaining buildings; and providing consumables. The Government funds teachers' salaries, some consumables, and initial sets of textbooks every 5 years for primary schools.

¹ United Nation Development Programme (UNDP). 1999. Pacific Human Development Report 1999. Colombo. UNDP. 2006. *Human Development Report 2006*. New York.

4. Secondary education should provide 5 years of education (years 9–13). However, not all secondary schools are able to offer the full year 13 curriculum for lack of teachers and other resources (e.g., tools for applied subjects). In 2006, about 40% of year 12 students did not enter year 13. In 2006, There are 44 secondary schools in Samoa, with a total enrollment of 15,165, and enrollment in the 42 government and mission schools was 14, 871. In 2005, the gross enrollment rate at the secondary level was 80%.² In 2006, the overall participation rate for secondary students (age 15–19) was only 45%. Student distribution in the country shows that 46% of secondary students are in the Apia urban area, 29% on the rest of Upolu, and 25% in Savai'i. There are 799 teachers in government and mission secondary schools. The Apia urban area has 45% of secondary teachers, the rest of Upolu has 28.5% secondary teachers, and Savai'i has 26.5% of secondary teachers. There is at least one government secondary school in each of Samoa's 22 districts. Males are underrepresented at the secondary level, constituting less than 40% of year 13 enrollments. Secondary students receive the Samoa School Certificate after completing the national examination for year 12. A regional examination, the Pacific Senior Secondary Certificate administered by the South Pacific Board of Educational Assessment is taken upon completion of year 13 and is required for enrollment in tertiary education.

5. The status of the school curriculum in Samoa is problematic; revisions made through piecemeal interventions by donor agencies have resulted in poor articulation between grade levels and across subjects. Also absent are clear guidelines of expected learning outcomes that set out the literacy, numeracy, and problem-solving skills, as well as social and cultural skills, that children should master as they progress through school system. Improvements required include (i) an updated comprehensive (K–12) curriculum policy framework; (ii) subject and year-level syllabi statements; (iii) classroom activities that emphasize more active, student-centered learning activities; and (iv) strengthened pedagogical and discipline knowledge teaching skills and the range of classroom assessment techniques that are essential for high-quality teaching and learning. These issues have implications for quality and efficiency at both the primary and secondary level. The Government intends to develop an integrated curriculum for primary years 1–3 and subject-specific curricula in seven subject areas for years 4–8, providing easy articulation with the secondary curriculum. A secondary education curriculum framework for years 9–13 is being translated into subject syllabi and implemented. There is a need to provide teachers' manuals, textbooks, and learning materials, and to design and deliver in-service training programs, for the secondary level. More effective instructional practice will also have to include more effective use of formative and summative assessments. Modern assessment strategies have been introduced in recent curriculum projects supported by development partners. These are, however, not yet widely applied.

6. **Access and Equity.** Generally, children throughout Samoa have good access to primary education and limited access to secondary. Over 25% of primary entrants fail to complete grade 8; of those who do complete, 90% have access to secondary. Therefore, about one in three primary entrants does not have access to secondary education. There is an urgent need to support the development of realistic equity indicators and the collection of baseline data that will guide policy reforms to increase equitable access to secondary education. Every village has a primary school; clusters of villages make up districts, and each district has a secondary school, with the bigger districts having more than one. The country is divided into 22 districts, with 8 on Savai'i and 14 on Upolu, including three districts in the Apia urban area. Districts outside of the Apia urban area are considered rural. Recent community consultations identified

² World Bank, EdStat, www1.worldbank.org/education/edstats. MESC Statistical Digest for 2006 does not provide gross and net enrollment rates for either primary or secondary schools.

the condition of school facilities as an important source of dissatisfaction. Although many primary schools and some secondary schools have been upgraded in recent years, several schools in the poorer areas still operate in facilities that do not meet national standards, often without proper classrooms and necessary equipment. Substandard schools, particularly in the rural areas, convey an image of poor-quality service, create an apathetic teaching and learning environment, can inhibit student learning, and result in a high dropout rate. A World Bank study suggests that the likelihood of children from the lowest quintile of households reaching secondary education and finding a job is low. Poor parents have difficulty paying school fees, especially at the secondary level. Thus, children of poor families perform less well in school and often dropout early. The provision of ICT equipment will have beneficial impact on equity by equalizing access to in-service teacher training and access to learning resources in remote secondary schools. However, ensuring systemwide efficiency will require the development of systemwide equity measures, including benefit incidence analysis, which will lead to more equitable resource allocation geared to inclusive growth and poverty alleviation. Such analysis is incorporated in the Project design.

7. Quality and Efficiency. The quality of education, as measured by test results and functional literacy, is disappointing. The Samoa primary education literacy level one (year 4) and two (year 6) tests, which assess students' risk of not reaching literacy and numeracy standards, as well as year 8 examinations, indicate unsatisfactory results. For example, in year 4, students at risk in English increased from 29% in 1997 to 51% in 2003; in year 6, students at risk in numeracy increased from 63% in 1997 to 71% in 2003. In year 8, raw scores in all five subject areas tested declined. At the secondary level, scores on the year 12 examination in the 15 subject areas declined over the 5 years between 1997 and 2002. Though they increased in most subjects in 2004, they remain low. In the 2005 Samoa School Certificate examination, the average grade in core subjects was 31% in mathematics, 37% in English, 22% in geography, and 53% in agricultural science and general science. Although questions may be asked about the reliability, validity, and suitability of these tests to accurately measure changes in student performance over time, fundamental problems are affecting school education in Samoa. These include low capacity to provide high-quality learning opportunities, resources, and learning environments in government schools, or to ensure they are available to all students—particularly in rural areas—and are delivered efficiently. In addition, many primary students do not complete the 8-year program. Dropout and repetition rates are high, indicating inefficiency in the school system. Graduates have low levels of functional literacy and numeracy and almost no computer literacy. Past efforts to address these issues of quality and efficiency, such as the Education Sector Project I, have not been particularly effective in addressing inefficiency in the system. MESC will need additional support in improving efficiency and equity, and this need is reflected in the Project design.

8. Relevance. The education system serves two labor markets—one internal and one external. The internal labor market focuses on agriculture, fisheries, construction and transportation, and small businesses (wholesale and retail). The manufacturing and services sectors (especially tourism) have been growing recently. Yet, few formal wage-paying positions are available in the country for highly trained technicians or skilled workers. As a result, 35.4% of Samoans live and work overseas. No comprehensive data exist on the occupations of overseas Samoans or information on the adequacy of the education system in preparing them for work abroad. Remittances from overseas Samoans are substantial, representing 17.4% of national income.

9. Management. An important management challenge is to increase the effectiveness of external aid to the education sector. The short-term focus of projects, overlap and duplication of

objectives and investments, fragmentation of effort, and multiple planning and reporting requirements weaken the overall impact of aid. Through the Education Sector Project II (ESP II) the Government has taken the lead in addressing this issue, and the Asian Development Bank (ADB), Australian Agency for International Development (AusAID), and New Zealand Agency for International Development (NZAID) have formally agreed on arrangements for aligning agency objectives and Government priorities and harmonizing procedures and processes for a sectorwide approach (SWAp), including joint reviews and cofinancing. However, some development assistance to education remains outside the ESP II framework.

10. **Efforts in Addressing Access, Equity, Quality, Efficiency, and Relevance.** To address these issues in the sector, the Government has undertaken ESP II, a broad, \$30 million project, with support from ADB, AusAID, and NZAID using a SWAp. ESP II is scheduled to run through 31 December 2012. The project has five components: (i) introducing curriculum reform and assessment systems; (ii) developing effective teachers; (iii) improving access to high-quality education; (iv) strengthening capacity to undertake research, evaluation, policy analysis, and planning; and (v) strengthening capacity to implement and manage development projects. The Project is designed to establish a learning environment that provides all children with an equal opportunity to learn at a higher level, while improving the cost-effectiveness of service provision. ESP II will contribute to eliminating inequity by minimizing regional disparities in access to high-quality education, promoting equitable learning outcomes, and improving efficiency. Improving access to high-quality primary and secondary education in poor communities is expected to reduce poverty and hardship.

11. The SchoolNet and Community Access Project (the Project) complement ESP II in three high-priority areas. First, ESP II gives limited emphasis to the use of ICT as a tool to enhance student learning outcomes and managing the education system; the Project fills that ICT void. Second, the major focus of ESP II is on improving the quality and efficiency of primary education and rehabilitating government secondary schools; the Project will complement that intervention by targeting the secondary level to provide e-learning and e-management opportunities and thereby contribute to sectorwide efficiency. Third, while ESP II does include a component to strengthen capacity in research, evaluation, policy analysis, and planning, there have been deficiencies in the area of financial planning and sustainability projections that warrant additional support. Moreover, the quasi-experimental design of the SchoolNet Project will require specialized assistance in strengthening evaluation capacity. The Project will be linked with ESP II to complement activities under it, and will be implemented within the ESP II structure to address these issues. MESC's capacity will be strengthened to implement additional activities under the Project.

12. ICT can significantly help to develop public awareness of the long-term benefits of a sound basic education and recognition that other people in different countries have used ICT to improve their quality of life.³ The capacity to effectively embed ICT in the teaching and learning process has seen significant improvement in the quality of teachers, and subsequently in student learning outcomes, in many countries. Such skills are not only useful in basic education but also essential for life-long learning and employability.⁴

³ See the quality-of-life changes initiated and supported by the Uganda Schoolnet project for local communities and school children, Uganda SchoolNet, World Links/MOE, <http://www.geocities.com/schoolnetuganda>.

⁴ See ICT Test Bed: 2006 Annual Report at www.evaluation.icctestbed.org.uk/reports and www.unescobkk.org/education/ict.

13. International evidence indicates the importance of ICT capacity and skills as key factors for national and global economic development. The Government is committed to introducing ICT in the education system. The project provides an opportunity for MESC to meet its ICT objectives, building on lessons learned in the ADB-funded SchoolNet pilot. Samoa will be the first Pacific developing member country to provide universal access to ICT-based instruction and Internet access to secondary schools. The design of the project will provide important information on the costs of ICT and its effectiveness in enhancing student achievement and employment prospects. It is anticipated that the Samoa experience will be of great value to other countries in the region and to the development community for further developing ICT strategies. The issue of ICT literacy is of particular importance in Samoa, with its large overseas population dependence on remittances as indicated above.

14. **Economic Rationale.** Internationally, the economic rationale for public sector involvement in the finance and provision of education, especially basic and secondary education, is well-established and applies to Samoa. International research has demonstrated the high social rate of return to basic education. As of 2001, approximately 50,000 people were in the formal workforce in Samoa, accounting for 25% of the total workforce. Those employed in the private sector and receiving higher average incomes also report higher levels of secondary education (93%), with 21% of them reporting postsecondary qualifications. Workers in the informal sector have lower educational attainment, as only 61% have a secondary education and 15% tertiary. The Government sees investment in human capital as imperative for growth. The Samoan education system is a combination of public, religious, and private providers. Most Government schools have a high degree of community participation in school management. Most primary schools and all but four secondary schools are viewed as the property of the community, with the Government providing teachers. The Project will build upon the principles of public-private partnership, strengthen delivery, and improve the quality and efficiency of secondary schools. Through support for policy analysis and policy dialogue, the Project will assist the Government in evaluating cost-recovery alternatives for postsecondary education and, in this way, improve the economic efficiency and viability of the system.

15. **Finance and Sustainability.** Education is consistently the largest single item in the national budget, accounting in the past 5 years for between 16% and 19% of expenditures. External assistance through grants targeting specific programs is provided by a number of donors. Currently, ADB is the only lending agency. Parental contributions to primary and secondary education through fees is minimal. Fees are determined by individual school committees. Generally the income is sufficient to pay only for basic utilities.

16. Indicators point to financial stress in the education system despite the high level of government support and substantial international development assistance. This is particularly the case in the recurrent budget and in support to basic education. Analysis of expenditure data combined with estimates of inflation suggest that per-student expenditure at the primary level decreased by over 15% in the past 4 years. There is an identified need to assess the efficiency of the system and to implement policies and strategies to lower unit costs in high-cost institutions and subsectors.

17. The ongoing ESP II addresses nonsalary recurrent inputs in the short to medium term that will help MESC and the Ministry of Finance offset the increased recurrent and operating costs of schools. The Government needs to develop a detailed financial framework to indicate the overall budgetary requirement to implement the SSP, including clearly defined responsibilities and accountability procedures for school maintenance. Many communities, especially rural and low-income areas, are not able to provide sufficient funds or manage

preventative maintenance plans. MESCC recently established its Assets Management Division to help communities plan and manage school maintenance. The Government is considering adopting a policy to include school maintenance cost as a budgetary line item. An important issue concerns the very high level of salary expenditure in the recurrent budget. At about 90%, it is well above that of most countries (with the exception of other Pacific island countries). Very few resources are left for other operational expenditures. This is a concern in view of the need to raise the morale of teachers and the need for new teachers. The inability of many communities, especially in rural areas, to provide sufficient funds for school maintenance is another concern.

18. As the education sector is already a primary recipient of government budgetary support, there may be limited opportunity for increasing overall government expenditure on education. The only likely opportunities for generating additional resources may be improvements in efficiency and private-public partnerships. Donor coordination can also contribute to increased efficiency in the sector, and coordination has improved in recent years.

EXTERNAL ASSISTANCE TO THE EDUCATION SECTOR IN ICT^a

Funding Source	Subsector	Duration	Amount and Description
ADB	Primary and Secondary Education Sector	2000–2006	Grant of \$820,000 for facilities, training, and materials. Loan 7 million for Education Sector Project 1 (ESP I). Grant of \$350,000 for project preparatory technical assistance for Education Sector Project II (ESP II). Loan of \$8.06 million for ESP II. Grant of \$350,000 for teacher development frameworks. \$150,000 for Strategic Policies and Plan. ESP I—93 computers, 26 printers, 93 UPS, 19 schools upgraded.
	Samoa SchoolNet	2005–2006	ESP II—13 schools supplied with computers and other office equipment; remaining secondary schools upgraded, curriculum and assessment system developed.
	STEP project	2006–2007	Grant of \$600,000 Samoa SchoolNet and Community Access Pilot Project. Establish a school and community network with a comprehensive data center connecting to MESC and to 5 pilot schools (TA # 4305–SAM). Grant for ICT in Education and Its Potential for Reducing Poverty in the Asia and South Pacific region (TA# 6278-REG. Provide IT equipment and training to CMAD)
	Total grants + loan		Over 17.0 million
AusAID	Primary Primary Primary	1999–2004 2000–2002 2000–2004	\$2,960,000 for high-quality materials production for years 1–8. \$52,000 for furniture and renovation of facilities. \$1,000 for health-promoting school activities. \$14,000 for water tanks for Falefitu primary. \$3,000 for book publication. \$183,000 for developing curriculum statements. CMAD was given computers, a server, and printer under the PEMP project.
	Secondary Secondary Secondary	2000 2000–2001 2001–2002	\$7,000 for construction and upgrading of new facilities. \$5,000 for furniture and renovations of facilities. \$21,000 for construction and upgrading of facilities. \$1,000 for a bus shelter at Nuuausala College. \$1,000 for water supply for St. Joan of Arc. \$2,000 for computers and printers for Leifiifi College.

Funding Source	Subsector	Duration	Amount and Description
	Management Management Management	1999–2004 2004 2005–2006	\$2,553,000 for developing management systems and upgrading skills. Establishment of the Institutional Strengthening Project office of IT equipment—6 computers, server, 3 printers, 2 photocopiers, scanner and fax machine. \$88,000 for reproduction of damaged curriculum materials. \$1,144,000 to support construction of new headquarters; \$8.6 million for ESP II.
	Institutional Strengthening Project, MESC	2002–2005	Designed and developed in-house management information systems. Supplied computers, printers, and software for the various subprojects.
	Total		Over 16 million
AusAID (ongoing)	Training for South Pacific Board of Educational Assessment	Ongoing	\$1,511,800 for training, development, and sponsorship. \$20,300 to promote regional cooperation in education
	Total		1,532,100
Canada Fund	Primary	2001–2002	\$52,000 for construction and renovation of facilities
	Secondary	2001–2002	\$61,000 for construction and renovation of facilities
	Postsecondary Postsecondary Postsecondary	2000–2003 2001 2002–2003	\$40,000 for provision of vehicle. \$31,000 for construction and renovation of facilities. \$6,000 for curriculum for Uesiliana Vocational Training Center
	Special Education	2001–2002	\$11,000 to refurbish Loto Taumafai Center for Disabled. \$4,000 for computers and software for special needs education.
	Total		168,000
JICA	MESC	2001	\$367,000 to upgrade printer for MESC
	Primary	2002	\$35,000 for writing and publishing books
	Primary/ Secondary	2002–2004	\$974,000 for reconstruction and refurbishment of 12 schools
	Postsecondary	2003	\$6,000 for sewing machines for Punaoa o Tumua school
	Postsecondary	2004–2005	\$10 million for construction and renovation of facilities
	Tertiary	2004–2005	\$350,000 for National University of Samoa computer lab
	Total		Over 11.4 million
NZ Aid	Secondary	1999–2004	\$3,238,000 for developing uniform, single-stream secondary curriculum. A computer laboratory with 10 computers and a printer was provided. \$8.6 million for ESP II.
	Secondary	2003–2004	\$165,000 to develop resource center to

Funding Source	Subsector	Duration	Amount and Description
			serve schools on Savai'i and rural Upolu
	Management	2004–2005	\$831,000 to develop and review curriculum. Develop new course in horticulture, hospitality, and tourism.
	Management	2004	\$89,000 to reproduce damaged curriculum materials
	Management	2005–2006	\$884,000 to support construction of new headquarters
	Training	Ongoing	\$2,111,000 to support training, development, and sponsorship
	Total		Over 12.5 million
UNDP, AUSAID/		2006–2007	Development Gateway Foundation. \$260,000 for e-government/country gateway development
UNDP and GKP	Postsecondary		\$30,000 for office computers and equipment for Agilima Handicraft Association
International Telecommunications Union	Community education	2005–2006	\$250,000 for telecenters for International Telecommunication Union, VIA Technology, and Global Knowledge Partnership
UNDP	Other	Ongoing	\$283,000 in support for teacher development activities
UNESCO	National Public Library—KOHA ^b	2007–2008	Deployment at the National Public Library. \$10,000 to supply a server and computer for the library and connectivity
SPBEA	Assessment Unit	2006	SPBEA database and software. Supplied one computer dedicated to the Atlas database.
World Bank and UNDP	MCIT and the ICT Secretariat	2006	Set up the MCIT (World Bank \$40,000) Set up ICT Secretariat (UNDP \$65,000)

ADB = Asian Development Bank; AusAID = Australian Agency for International Development; CMAD = Curriculum Materials and Assessment Division; GKP = Global Knowledge Partnership; ICT = information communication technology; JICA = Japan International Cooperation Agency; MCIT = Ministry of Communications and Information Technology; MESC = Ministry of Education, Sports, and Culture; NZAID = New Zealand Agency for International Development; PEMP = Primary Education Materials Project; UNDP = United Nations Development Programme; SNE = special needs education; SPBEA = South Pacific Board of Educational Assessment; WHO = World Health Organization; UPS = University of South Pacific.

^a Excludes external assistance provided to mission and private schools.

^b Koha is the first open-source Integrated Library System (ILS).

Source: Asian Development Bank.

LESSONS LEARNED

Key Lessons Learned	Incorporating Lessons Identified in Project Design
<p>1. A sector strategic and action plan should be developed to provide future direction for overall sector development. A targeted, long-term, and coordinated education vision can improve the quality and equity of education provision, including ICT in education.</p>	<p>The Project will be implemented through a SWAp to ensure institutionalization of project-supported capacity-development efforts. While the Project targets the secondary level, capacity development and infrastructure has sector-wide applicability. The Project will support ESP II to embed ICT vision in the secondary curriculum framework being developed, which will lead to well-articulated subject syllabi with high-quality e-learning materials and teaching manuals.</p>
<p>2. High levels of commitment and management capacity from all stakeholders are critical for effective and efficient implementation and ownership of projects. Duplicating projects that cause competing demands on the community and the government should be avoided.</p>	<p>The Project will provide significant capacity-development support to ensure that the ICT technical and project management capacities are developed within MESC to support the project. The project will also develop and implement a standardized template and procedure and adopt results-based management for all project appraisal reports, tender documents, and contracts for civil works to increase efficiency. Advocacy and awareness activities are also planned, and support will be provided to integrate other ICT initiatives, as schools provide a focal point in most communities and are the best location to maximize the impact of ICT interventions.</p>
<p>3. Dedicated staff in MESC with tenure to provide continuity is essential for the success of Projects. As high staff turnover can seriously affect project outcomes, there is a need for government commitment up front.</p>	<p>An assurance will be obtained from the Government that a sufficient number of dedicated staff with appropriate qualifications will participate in the project and that incentives will be considered to retain good staff. The Project will help MESC to develop and implement a long-term staff-development plan as part of MESC strategic planning, for teachers (both pre- and in-service), IT technical staff and the MESC head office staff.</p>
<p>4. A coordinated approach by donors is necessary to provide consistent and well-articulated advice for a comprehensive K–12 curriculum framework as a precursor to developing e-learning materials and an e-teachers manual.</p>	<p>The Project will adopt a participatory approach through the donor-harmonization framework agreed for the ESP II. This process will ensure a shared approach to curriculum development and teacher training that has ICT embedded in its vision, leading to well-articulated subject syllabi, e-learning materials, and teaching manual. The Government will be encouraged and supported to lead the development of an integrated curriculum framework for K–12 education.</p>
<p>5. ICT in education is not just about providing equipment, as realized in the ESP I project. ICT equipment was not being used by students and teachers for lack of planning of an integrated approach to providing technical and pedagogical support or maintenance.</p>	<p>The Project will provide significant and extended training for MESC staff to (i) develop and deliver in-service training for teachers to adopt new e-learning pedagogies, (ii) use e-learning resources in their classrooms, (iii) plan and implement ICT technical and pedagogical support, and (vi) empower school principals and teachers to teach students to use the ICT for learning. A technical advisory committee will advise MESC on cost-effective options for connectivity design and the best approach to build capacity in MESC and the local IT providers so that they provide regular and effective maintenance to ensure the longevity of the equipment and the system</p>

Key Lessons Learned	Incorporating Lessons Identified in Project Design
<p>6. For social sector projects in the Pacific region, a 5-year implementation period is too short for achieving performance targets. However, frequent and effective monitoring of project activities for outcomes, as formative tools, is necessary for improving long-term project impact.</p> <p>7. A total-cost-of-ownership approach should be adopted to plan and manage the sustainability and efficiency of the Project and the whole sector. Local ownership and successful adoption of ICT in education is influenced by technical and financial sustainability. To achieve this, a data-driven, evidenced-based approach to policy dialogue and long-term planning is necessary.</p> <p>8. A clear understanding of the specific obligations and roles of all parties, with flexibility to permit midcourse adjustments in scope and implementation arrangements, should be developed through discussion and evaluation during the implementation process.</p>	<p>The Project will build capacity in MESC to develop a system of quantitative-and-qualitative, evidence-based monitoring and evaluation to monitor the impact of the new e-curriculum, in-service teacher training, and e-management on students learning outcomes. This will ensure capacity for on-going monitoring and evaluation beyond the life of the project, with results incorporated into MESC's strategic planning process. To support this, the Project will help MESC consolidate the various databases into a unified system and integrate the EMIS with schools for reporting. It will build capacity to develop and implement e-reporting templates and data collection techniques, and to undertake studies in pursuit of system-wide efficiency and tracer studies to map graduate destination.</p> <p>The Project will help MESC develop and implement policies and procedures for identifying key efficiency enablers and barriers, collecting reliable baseline data, and mapping return on investment. The Project will also help MESC and the Government create appropriate conditions for establishing public-private partnerships, providing e-rate through a universal services fund for the poor and the remote, encouraging other agencies to use and subsidize the network, and coordinating donor support for the activities and partnership outlined above.</p> <p>The Project is cognizant of the rapidly changing technology infrastructure and capacity in Samoa and has adopted a flexible design to take advantage of the best technical options available at the time. Robust, low-cost technology should be considered to ensure easy maintenance and reduce the risk of premature obsolescence. Also, to accommodate the constraints caused by the isolation of Pacific developing member countries, sufficient contingency resources have been included in the design of the Project.</p>

EMIS = education management information system, ESP = Education Sector Project, ICT = information and communication technology, IT = information technology, K-12 = kindergarten to grade 12, MESC = Ministry of Education, Sports, and Culture, SWAp = sector-wide approach.

Sources: ADB Education Sector Project I; Samoa SchoolNet and Community Access Pilot; TA 6278-REG: Innovative Information and Communications Technology in Education and Its Potential for Reducing Poverty in the Asia and the Pacific Region; AusAID Institutional Strengthening Project; Primary Education Materials Project (PEMP) I and II; NZAID; Samoa Secondary Education Curriculum and Resources Project (SSECRP); International Technology Union and Ministry of Communication, Information and Technology, tele-center project; ADB/AusAID/NZAID Education Sector Project (ESP II); and ADB Evaluation Information System

<http://evis.adb.org/oed001p.nsf/SearchLessons?OpenForm>

DETAILED COST ESTIMATES

Table A5.1: Detailed Cost Estimates by Expenditure Category^a
(\$ million)

Item	Foreign Exchange	Local Currency	Total Cost	% of Total Base Cost
A. Investment Costs				
1. Information technology equipment and network	2.07	0.00	2.07	33.28
2. Content development	0.32	0.00	0.32	5.14
3. Vehicle	0.04	0.00	0.04	0.64
4. Consulting services				
a. Project management	0.18	0.06	0.24	3.86
b. Capacity development	1.62	0.41	2.03	32.64
5. Training, workshops, and awareness	0.44	0.13	0.57	9.16
6. Taxes and duties	0.00	0.58	0.58	9.32
Subtotal (A)	4.67	1.18	5.85	94.05
B. Recurrent Costs				
1. Counterpart staff	0.00	0.25	0.25	4.02
2. Local travel	0.00	0.06	0.06	0.96
3. Operations and maintenance	0.00	0.06	0.06	0.96
Subtotal (B)	0.00	0.37	0.37	5.95
Total Base Cost	4.67	1.55	6.22	100.00
C. Contingencies^b				
1. Physical	0.28	0.09	0.37	5.95
2. Price	0.11	0.20	0.31	4.98
Subtotal (C)	0.39	0.29	0.68	10.93
Total Project Cost (A+B+C)	5.06	1.84	6.90	110.93

^a In mid-2007 prices.

^b Physical contingencies are computed at 6%. Price contingencies are computed at an average of 0.8% on foreign exchange costs and 3.6% on local currency costs and include provision for exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

Table A5.2: Detailed Cost Estimate by Financier
(\$ million)

Item	Cost	ADB		Government	
		\$ ^a	% of Cost Category ^b	\$	% of Cost Category
A. Investment Costs					
1. IT equipment and network	2.07	2.07	100	0.00	
2. Content development	0.32	0.32	100	0.00	
3. Vehicle	0.04	0.04	100	0.00	
4. Consulting services					
a. Project management	0.24	0.24	100	0.00	
b. Capacity development	2.03	2.03	100	0.00	
5. Training, workshops, and awareness	0.57	0.57	100	0.00	
6. Taxes and duties	0.58	0.00		0.58	100
Subtotal (A)	5.85	5.27		0.58	
B. Recurrent Costs					
1. Counterpart staff	0.25	0.00		0.25	100
2. Local travel	0.06	0.03	50	0.03	50
3. Operations and maintenance	0.06	0.03	50	0.03	50
Subtotal (B)	0.37	0.06		0.31	
Total Base Cost	6.22	5.33		0.89	
C. Contingencies	0.68	0.57	84	0.11	16
Total Project Costs	6.90	5.90		1.00	
% Total Project Costs	100		85		15

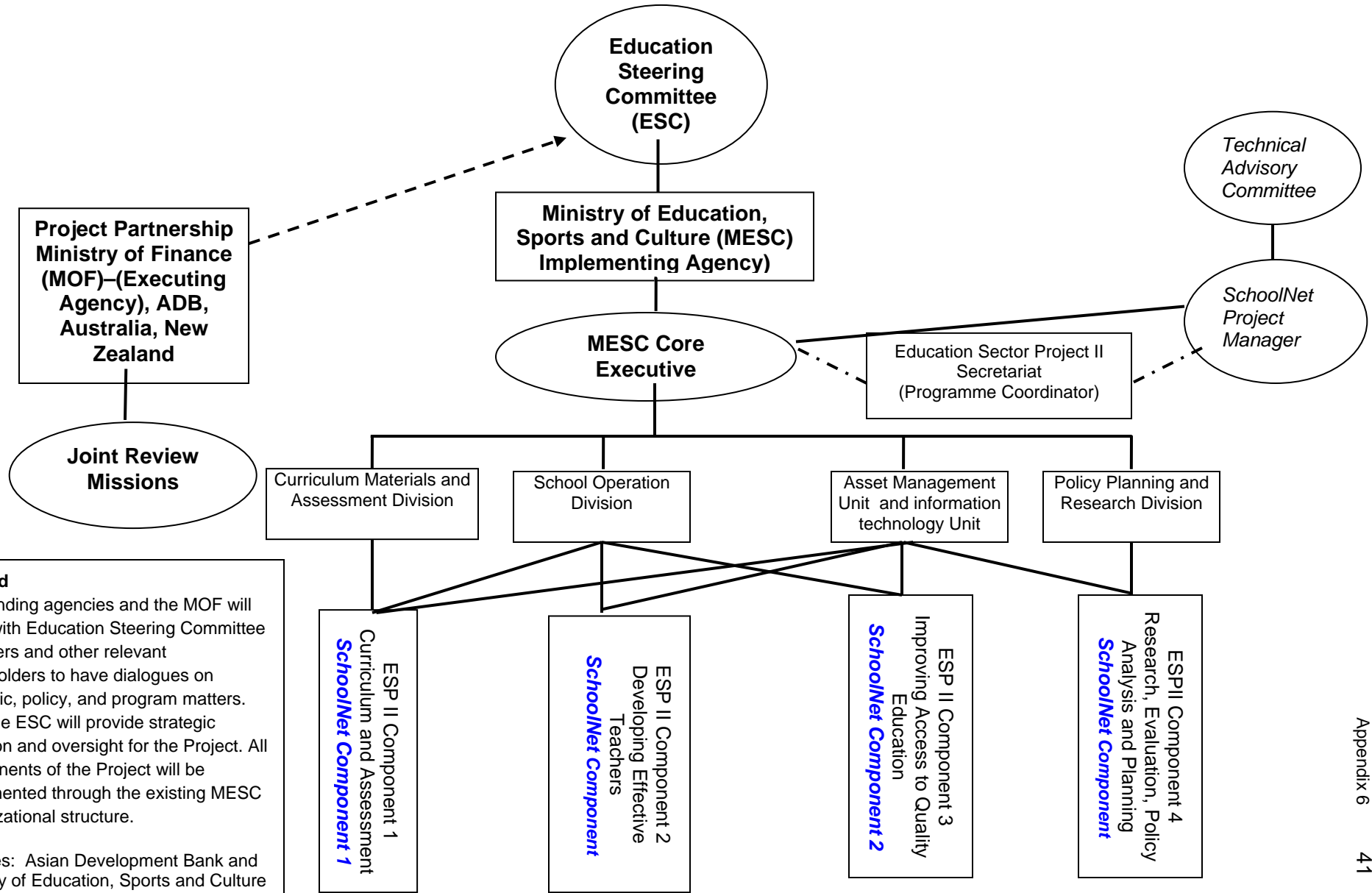
ADB = Asian Development Bank, IT = information technology.

^a Amount of ADB grant proceeds allocated to the cost category.

^b The amounts disbursed by ADB for eligible expenditures under a cost category will be subject to the ceiling set by the allocation of grant proceeds for that cost category.

Source: ADB estimates.

PROPOSED SCHOOLNET MANAGEMENT STRUCTURE



Legend
 -----Funding agencies and the MOF will meet with Education Steering Committee members and other relevant stakeholders to have dialogues on strategic, policy, and program matters.
 ____ The ESC will provide strategic direction and oversight for the Project. All components of the Project will be implemented through the existing MESC organizational structure.

Sources: Asian Development Bank and Ministry of Education, Sports and Culture

IMPLEMENTATION SCHEDULE

Item	Stage 1				Stage 2															
	2008				2009				2010				2011				2012			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
A. Component 1: Improving quality of teaching and learning																				
1. E-curriculum capacity development and distribution																				
Conduct e-curriculum needs analysis for CMAD																				
Train CMAD staff to use ICT tools in curricula development																				
Organize study tours for CMAD staff																				
Train CMAD staff in network and portal maintenance																				
Train CMAD in procuring existing e-learning materials																				
Develop and trial e-curriculum and e-learning resources, electronic assessment and reporting forms																				
Acquire a stock of course and e-learning material																				
Disseminate, train and implement e-curricula, e-learning resources, e-assessment and reporting																				
2. E-teaching capacity development																				
Review and enhance teacher ICT competencies framework																				
Train NUS/SOD staff in using ICT tools for teaching and learning																				
Organize study tours for SOD and NUS staff																				
Train SOD/NUS staff in network and portal maintenance																				
Train SOD/NUS staff in facilitating/mediating online training forums																				
Develop and trial hybrid (online/ face to face) teacher training programs																				
Recruit and train TOT/SROs to deliver ICT teacher training																				
Implement teacher training in ICT at all participating schools																				

Item	Stage 1				Stage 2															
	2008				2009				2010				2011				2012			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
3. Management capacity development																				
Identify management capacity need of principals, SROs, school learning center administrators, TOTs train principals, and school administrators in participating schools																				
Train CMAD, SOD and PPRD staff on developing M&E indicators, tools to evaluate, analyze, and report																				
Respective divisions and PPRD jointly develop performance indicators for their interventions																				
Collect baseline data for CMAD and SOD activities																				
Collect post intervention data CMAD and SOD activities																				
Preparing analytical M&E reports																				

B. Component 2: Improving education access through ICT																				
1. SchoolNet equipment																				
Review and adapt equipment package for durability and QoS																				
Review connectivity options and adapt as necessary																				
Review and adapt Data Center equipment for QoS agreed																				
Detail specification for procurement and phased rollout plan agreed																				
Phase 1 rollout–2009(12); 2 -2010 (15);3-2011-(15)																				
Develop detailed activity plan for phase 1 rollout																				
Deliver, install, test and commission LAN equipment																				
Setup WAN connectivity to data center and main portal																				
Setup school subportals																				
Deliver, install, test, and commission equipment and connectivity																				
2. Extended network to connect MESC																				
Identify connectivity needs to link CMAD, SOD, TRC, and IT Unit to SchoolNet network																				

Item	Stage 1				Stage 2															
	2008				2009				2010				2011				2012			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Procure, install and commission connectivity																				
Connect to Data Center and SchoolNet Portal																				
3. Strengthen Data Center and Portal																				
Conduct needs analysis and develop detail activity plan																				
Procure and install additional equipment																				
Conduct feasibility to migrate Data Center to MESC																				
Review the design and structure of Portal and requirements for expansion																				
Design additional subportal as required by CMAD and SOD																				
4. Strengthen MESC ICT capacity																				
Needs analysis for MESC IT Unit to support expanded SchoolNet																				
Recruitment and appointment of additional staff																				
Train IT staff in technical aspects/study tours																				
Plan and organize study tours for IT staff																				
IT policies for staffing and resourcing developed and implemented																				
Review and draft ICT policy for MESC and schools																				
Consultative workshops for stakeholder feedback																				
Develop 4 year action plan implementing ICT policy																				
Implement revised MESC ICT policy																				

C. Component 3: Establishing community access and developing partnerships																				
1. Community awareness of SchoolNet																				
Develop 4 year action plan for advocacy and awareness campaign																				
Develop and implement community baseline survey																				
Develop and deliver advocacy—TV, newspaper, etc.																				
Develop and deliver public awareness activities																				

Item	Stage 1				Stage 2															
	2008				2009				2010				2011				2012			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Develop and implement mid-term and final community impact surveys																				
Management committee formed																				
Review pilot project management model																				
Develop and conduct management training for school committees																				
Develop training program for community members																				
2. Agreements and partnerships																				
Conduct workshop to facilitate dialogue between stakeholders																				
Develop and agree on partnerships between MESC and school communities, and other government agencies and private companies																				
Develop and agree on partnerships between MESC and mission schools, and civil societies NGOs and peace corps																				

D. Component 4: Strengthening education management and coordination and improving analysis of economic efficiency, equity, and sustainability																				
Strengthened education management and coordination																				
1. Strengthened education management and coordination																				
Review MESC's current multiple databases and develop rationale and process for integrating Plan and implement integration process for a consolidated MESC data base																				
Review school level data input capacity																				
Design and implement study to collect baseline data																				
Develop project M&E indicators																				
Develop electronic templates for M&E data collection																				
Train school level staff in data entry using electronic forms																				

Item	Stage 1				Stage 2															
	2008				2009				2010				2011				2012			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Train MESC PPRD staff in electronic data compilation and analysis																				
Stakeholder consultation meetings																				
Implementation integration planning																				
Develop and agree on procedures for joint reporting with ESP II																				
Develop electronic approach for data and information sharing between ESP II and SchoolNet expansion project																				
Develop joint reports for the SC, MESC, and donor partners																				
2. Improve analysis of economic efficiency, equity and sustainability																				
Select instruments for assessing student competency in at least 6 academic subjects and collect baseline data																				
Conduct secondary graduate tracer studies, baseline and annual through and beyond life of Project																				
Develop measures of units costs, equity and efficiency and collect baseline data																				
Identify policy options for improving efficiency																				
Develop sustainability projection model in collaboration with Ministry of Finance																				

ESP II = Education Sector Project II; MESC = Ministry of Education, Sports and Culture; PPRD = Policy, Planning and Research Division; SC = steering committee;

Source: Asian Development Bank.

PROCUREMENT PLAN
Table A8.1: Project Information

Country	Independent State of Samoa
Name of Country	Independent State of Samoa
Project Name	SchoolNet and Community Access Project
Project Reference	SAM 36513
Date of Effectiveness	—
Amount	\$5.90 million
Of which, Committed	—
Executing Agency	Ministry of Finance
Approval Date of Original Procurement Plan	—
Publication for Local Advertisements	See Table A7.4, below
Period Covered by this Plan	January 2008–December 2012

Source: Asian Development Bank estimates.

Table A8.2: Procurement Thresholds for Works, Goods, and Related Services

Procurement Method	Value to Be Used Above (\$)
International Competitive Bidding Goods	\$1,000,000
National Competitive Bidding Goods	Less than \$1,000,000
Shopping Goods	Less than \$100,000

Source: Asian Development Bank estimates.

Table A8.3: Procurement Thresholds for Consulting Services

Procurement Method	Value to be Used Above (\$)
Quality Based Selection	200,000
Individual consultants will be recruited for the project management adviser position and the unallocated person-months in response to specific and urgent requirements and the need for flexibility in the Government's management of the unallocated person-months.	—

— = not applicable.

Source: Asian Development Bank.

Table A8.4: List of Contract Packages in Excess of \$100,000, Goods and Consulting Services

Ref	Contract Description	Estimated Cost ^a (\$)	Procurement Method	Expected Date of Advertisement ^b	Prior Review (Y/N)	Comments
1	Equipment and connectivity for additional 11 schools—phase I	350,000	NCB	September 2008	Y	Connectivity is local; relates to schools' LAN and connection to WAN
2	Equipment and connectivity for additional 13 schools—phase II	415,000	NCB	September 2009	Y	
3	Equipment and connectivity for additional 14 schools—phase III	447,800	NCB	September 2010	Y	
4	Equipment and connectivity for MESCC Divisions and Units	88,000	NCB	September 2008	Y	Combine ^c
5	Equipment for data center	40,400	NCB	September 2008	Y	Combine ^c Connectivity relates to wider infrastructure requirements
6	Connectivity infrastructure—phase 1	241,500	NCB	June 2008	Y	
7	Connectivity infrastructure—phase 2	322,000	NCB	June 2009	Y	Precise details to be determined
8	Connectivity infrastructure—phase 3	161,000	NCB	June 2010	Y	
9	Content development (courseware procurement and licensing, including portal development)	322,000	NCB/S	From June 2008	Y/N	
10	Consulting services (for project management advisor position and unallocated person-months)	240,000	IC	From December 2007	Y	
11	Consulting services (one firm for all other consulting services)	2,028,000	QBS	December 2007	Y	

— = not applicable; IC = individual consultant; LAN = local area network; MESCC = Ministry of Education, Sports, and Culture; NCB = national competitive bidding;

QBS = quality-based selection; WAN = wide area network; Y/N = yes/no.

^a Estimated costs relate to base costs, excluding taxes and duties.

^b Estimated date, based on start up by end of first quarter of 2008.

^c Package less than \$100,000, but procurement will be combined with package 1.

Source: Asian Development Bank.

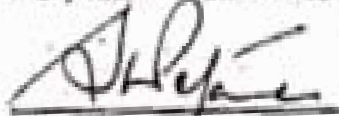
Table A8.5: Proposed Detailed Contract Packages

Description	Number of Contracts	Cost Estimate per Contract (\$)	Aggregated Total Cost Estimate	Mode of Procurement	Responsible Agency
A. Goods and services, equipment					
1. Vehicle	1	38,600	38,600	Shopping	MESC
2. IT equipment and networks	7	8,100–447,600	2,073,600	NCB/Shopping	MESC
3. Content development	20	3,000–120,000	322,000	NCB/Shopping	MESC
B. Consulting services					
	5	8,000–1,953,000	2,268,000	QBS/ICR	MESC

Asian Development Bank


 Kowsar P. Chowdhury
 Chief Negotiator

Independent State of Samoa


 Hinauri Petanu
 Chief Negotiator

ICR = international consultant recruitment; IT = information technology; MESC = Ministry of Education, Sports, and Culture; NCB = national competitive bidding; QBS = quality-based selection.
 Source: Asian Development Bank.

OUTLINE TERMS OF REFERENCE FOR CONSULTING SERVICES

A. Introduction

1. The local project management team under the Education Sector Project II (ESP II) secretariat will provide day-to-day project management on behalf of the Government to the SchoolNet and Community Access Project (the Project). This team will principally comprise the ESP II coordinator; Ministry of Education, Sports, and Culture (MESC) division and unit heads; and SchoolNet project manager, with support staff. The ESP II secretariat will provide similar project management for the ESP II project.

B. Scope of Work

2. The consulting team will support the local project management team across all aspects of the Project—in planning, reporting, and other management and consultative processes; school selection; equipment procurement and commissioning; training and orientation at the school, ministry, and community level; ministry management systems and procedures; e-learning material access and/or development and dissemination; and policy and partnership development. The consulting team will need to be able to adapt to the developing technical situation and needs and be able to support the integrated sectorwide approach.

3. The Project provides for one contract with a firm to provide all the consulting services except the

- (i) position of project management adviser and
- (ii) unallocated person-months, 2 international and 8 national, for which individual consultants will be recruited.

4. The project management adviser will be recruited to support the ESP II secretariat and the SchoolNet project manager in the overall management of the Project. This position needs to be taken up as early as possible, and the consultant will work directly with the management team for the Project. In this way, the position needs to be independent from the main consulting team. The unallocated person-months are provided to cover additional or unforeseen requirements that may arise from time to time, based on the progress of the Project and the changing requirements, related for example to information and communications technology (ICT) needs. In this case, the Government will need to direct recruitment on a case-by-case basis.

5. The integrated nature of the Project and the consulting services makes it important that consulting services (except for the two items noted above) be provided by one firm rather than split among a number of firms and contracts, so that consulting services do not become fragmented and end up creating management issues. The team leader of the consulting team will have overall responsibility for coordinating the various inputs in coordination with, and reporting to, the ESP II Secretariat, through the ESP II coordinator.

6. Given the complexities of the Project and the demands of the ongoing ESP II, it will be important for the project management adviser and the consulting team (principally the team leader, or the deputy team leader in the absence of the team leader) to fully support the local project management team in all aspects of the Project.

7. The outline terms of reference for the individual consultants are specified below:

1. International (72 person-months)

a. E-Education Specialist/Team Leader (20 person-months)

8. The consultant will be head of the consulting team, reporting to the ESP II coordinator, and responsible for the overall management of consulting inputs into the Project and oversight of day-to day activities, assisted by a deputy and the project manager. Duties include planning, scheduling, implementing, monitoring, and reporting. The team leader will also assist MESC with ICT policy development, including the disposal of obsolete equipment

b. ICT-in-Education Trainer (17 person-months)

9. The consultant will have relevant background and expertise in e-learning and e-resource development and be responsible for (i) learning materials inventory and e-learning delivery in Samoa, (ii) training needs analysis and program development, and (iii) related monitoring and evaluation.

c. Communications Engineer (12 person-months)

10. The consultant will have a relevant background and experience in advanced telecommunications applications and networking and will be responsible for (i) the technical design to support the expansion program, including an agreed communications infrastructure plan and schedule, and (ii) procuring and commissioning the equipment and other related requirements for the expansion program.

d. EMIS Specialist (4 person-months)

11. The consultant will have a relevant background and practical experience in education management information systems (EMISs) and databases, and will be responsible for (i) establishing and operationalizing a unified EMIS, (ii) integrating with SchoolNet, and (iii) assessing EMIS-related training needs and devising an appropriate training program.

e. Project Management Adviser (6 person-months)

12. The consultant will have a relevant background and practical experience in managing large-scale development projects and will be familiar with ADB project implementation guidelines. The consultant will be responsible for assisting the ESP II secretariat in the planning, monitoring, reporting, procurement, and financial management aspects of the Project; establishing and implementing the partnership arrangements; and identifying appropriate mechanisms for redressing grievances.

f. Social Development Specialist (3 person-months)

13. The consultant will have a relevant background in participatory methods and gender issues and extensive experience in mobilizing community resources, in engaging communities under partnership arrangements, and preferably in the use of computers in schools. The consultant will be responsible for monitoring and evaluation baselines and indicators; a monitoring program; and initial consultations with, and management plans

for, communities. The consultant will also assist the team leader with ICT policy development, including the disposal of obsolete equipment.

g. Educational Evaluation and Assessment Specialist (4 person-months)

14. The consultant will have a relevant background and extensive experience in designing and evaluating education projects, with special reference to quasi-experimental designs that capitalize upon staged implementation.¹ The consultant will be familiar with the range of criterion-referenced assessment instruments used in international studies of educational achievement. The consultant will assist MESC in (i) developing an implementation and evaluation plan for the SchoolNet Project, (ii) developing criteria for assigning secondary schools to phases 1–3 of stage 2, and (iii) developing related monitoring and evaluation systems and information.

h. Educational Economics Specialist (4 person-months)

15. The consultant will have a relevant background and extensive experience in conducting economic analyses of education systems in developing countries; designing simulation models; and undertaking analyses of efficiency, equity, and long-term financial sustainability. The consultant will assist MESC and MOF in identifying the full range of data available to support analyses of equity, efficiency, and sustainability; conducting related analyses; and developing projection models and investment frameworks and the medium-term expenditure framework.

i. Unallocated (2 person-months)

16. These person-months will be used to supplement the existing positions' person-months and/or meet other requirements identified in the course of the Project. Except for cases of extreme urgency, these will be identified under the agreed annual work plans, including the detailed terms of reference for new positions and/or adapted terms of reference (if applicable) for existing positions.

2. National (108 person-months)

a. E-Education Specialist/Deputy Team Leader (22 person-months)

17. The consultant will be deputy head of the consulting team, reporting to the consultant team leader and acting on his or her behalf during his or her absence. The consultant will work with the team leader to manage the consulting inputs into the Project and oversee day-to-day activities. The consultant will assist MESC with ICT policy development, including the disposal of obsolete equipment, and will establish and maintain the Project website.

b. ICT-in-Education Trainer (21 person-months)

18. The consultant will have a relevant background and expertise in e-learning and, in conjunction with the international consultant, be responsible for (i) learning materials

¹ See Cook T. and D. Campbell. 1979. *Quasi-Experimentation: Design & Analysis Issues for Field Settings*. Boston: Houghton Mifflin Co., for a comprehensive discussion of the subject.

inventory and e-learning delivery in Samoa, (ii) the training needs analysis and program, and (iii) related monitoring and evaluation.

c. Communications Engineer (15 person-months)

19. The consultant will have a relevant background and experience in advanced telecommunications applications and networking and, in conjunction with the international consultant, be responsible for (i) the technical design to support the expansion program, including agreed communications infrastructure plan and schedules, and (ii) procuring and commissioning equipment and other related requirements for the expansion program.

d. Social Development Specialist (13 person-months)

20. The consultant will have a relevant background in participatory methods and gender issues and extensive experience in mobilizing community resources and, preferably, in the use of computers in schools. In conjunction with the international consultant, the specialist will be responsible for monitoring and evaluation baselines and indicators; a monitoring program; and consultations with, and management plans for, communities.

e. Financial Specialist (24 person-months)

21. The consultant will be engaged on a part-time basis over the life of the Project and will be responsible for funding, accounting, and financial accounting and reporting requirements for the Project, and will assist in auditing and procurement.

f. Economic Specialist (5 person-months)

22. The specialist will have relevant training and experience in economic analysis and data systems and will be familiar with the Samoan budget. The specialist will work closely with the education economist and will assist MESC and MOF in extracting data files from various Government systems to construct time-series analysis files to support economic analyses of equity, efficiency, and sustainability; obtain additional information that may not be available in existing data bases; and provide other support as required to assure the successful completion of economic analysis.

g. Unallocated (8 person-months)

23. These person-months will be used to supplement the existing positions' person-months and/or meet other requirements identified in the course of the Project. Except for cases of extreme urgency, these will be identified under the agreed annual work plans, including the detailed terms of reference for new positions and/or adapted terms of reference (if applicable) for existing positions.

24. The indicative summary of consulting inputs is given below. The rates shown include all fees, per diems, and air fares.

Table A9: Indicative Summary of Consulting Inputs

Component	Expertise	Person-months		Cost (\$'000)	
		Intl	Local	Intl	Local
1. Improving quality of teaching and learning	E-Education Specialist/Team Leader	5		125	
	E-Education Specialist/Deputy Team Leader		8		40
	ICT-in-Education Trainer	9	11	225	55
	Unallocated		4		20
2. Improving education access through ICT	E-Education Specialist/Team Leader	6		150	
	E-Education Specialist/Deputy Team Leader		4		20
	Communications Engineer	12	15	300	75
	ICT-in-Education Trainer	8	10	200	50
	Unallocated	2	4	50	20
3. Establishing the Community Access Program and partnership development	E-Education Specialist/Team Leader	6		150	
	E-Education Specialist/Deputy Team Leader		7		35
	Social Development Specialist	3	10	75	50
4. Strengthening management and coordination, and improving analyses of economic efficiency, equity, and sustainability	E-Education Specialist/Team Leader	3		75	
	E-Education Specialist/Deputy Team Leader		3		15
	EMIS Specialist	4		100	
	Social Development Specialist		3		15
	Financial Specialist		24		48
	Project Management Adviser	6		150	
	Educational Evaluation and Assessment Specialist	4		100	
	Educational Economics Specialist	4		100	
Economic Specialist		5		25	
Total		72	108	1,800	468

EMIS = education management information system, ICT = information and communications technology, Intl = international.

Source: Asian Development Bank.

GOVERNANCE AND ANTICORRUPTION ASSESSMENT
 (Extract from Samoa Governance and Risk Assessment Plan 2007—Education Sector)

Risk Description	Likelihood of Occurrence (Very low, Low, Medium, High)	Potential Impact (Very low, Low, Medium, High)	Mitigation Measures (Include existing or planned measures)
A. Public Financial Management			
1. Embezzlement, leakage or diversion of funds.	Low	High	(a) Improve monitoring capacity and management control mechanisms on compliance and performance. (b) Ensure regular, independent auditing of public funds allocation and expenditure. (c) Increase public accountability and awareness by publishing program plans, budgets and expenditure. (d) Improve communication, coordination and cooperation, especially at community-level (including civil society, media, police, courts, local representatives, Ministry and auditing authorities). (e) Within the context of a sectorwide approach, institutionalize the involvement of parents', teachers' and students' associations in monitoring of both performance and use of funds, including by strengthening their control rights and capacities as needed.
2. Lack of financial sustainability—20–45% of total education sector funding is still dependent on external assistance (grants and loans), including recurrent costs.	Medium	High	(f) Implement the financial analysis and projection model developed as part of the Education Sector Project II design process. (g) Include specified operational and debt repayment requirements in government budgets.
3. Added pressure of new sector investments on the recurrent budget.	High	High	(h) Ongoing careful government scrutiny of all new investment proposals. (i) Continue with development of a sector policy and financing framework as part of Education Sector Project II, including sustainable operation and maintenance costs, and robust

Risk Description	Likelihood of Occurrence	Potential Impact	Mitigation Measures
	(Very low, Low, Medium, High)	(Very low, Low, Medium, High)	(Include existing or planned measures)
			policies and procedures for maintenance and asset protection.
4. Parallel information and reporting requirements for government and external funding agencies.	Very Low	Medium	(j) Continue to develop and implement an integrated reporting framework under the government finance and reporting system that meets both government and funding agency information requirements.
B. Procurement			
1. Provision by potential contractors of illegal 'kickbacks' to clients to eliminate competitors in a tender process.	Low	Medium	(a) Ensure international standards are applied within the Ministry in the enforcement of procurement laws and guidelines. (b) Institutionalize the involvement of civil society organizations in tender selections and in monitoring systems at different levels. (c) Promote integrity in the private sector, and blacklist companies involved in malpractice.
2. Tailoring of tender criteria or other terms to suit particular bidders.	Very Low	Medium	Continue to uphold the rigorous systems that are in place, including adherence to measures (a), (b) and (c) above, so that such risks cannot occur.
3. Disregarding failure of contractors to adhere to contract conditions, including stipulated quantities and qualities.	Low	Medium	(d) Continue to uphold the rigorous systems that are in place, including adherence to measures (a), (b) and (c) above, so that such risks cannot occur.
C. Anticorruption			
1. Bribery, nepotism or favoritism, e.g., in the provision of personnel opportunities, funding allocations, determining the location of infrastructure and services, or requiring use of particular materials where there are personal benefits.	Low	High	(a) Develop, disseminate widely, and enforce a professional code of conduct. (b) Ensure criteria, guidelines, and procedures are well defined and transparent. (c) Ensure processes and decisions are open to scrutiny, i.e., simplified if necessary, documented, and publicly available. (d) Ensure complaints and appeal processes operate openly and effectively, and that

Risk Description	Likelihood of Occurrence (Very low, Low, Medium, High)	Potential Impact (Very low, Low, Medium, High)	Mitigation Measures (Include existing or planned measures)
			whistleblowers are protected. (e) Incorporate professional conduct issues into pre- and in-service training courses. (f) Provide effective incentives for both teachers and administrators that both encourage and reward professionalism (including career structures, remuneration, working conditions, and incentives for qualifications).
2. Use of public position for private gain, e.g., imposition of illegal fees or charges; selling of test scores, grades, certificates etc; use of school property for private commercial purposes.	Medium	Medium	(g) Ensure adequacy of management information, monitoring, control and supervisory systems, including at school/classroom/teacher level (e.g., use of student identity cards, encoding the identity of examinees on exams, report cards etc; spreading responsibility for marking and issuing of reports, certificates etc; random inspections of teacher presence and performance). Measures (a)–(f) above also apply.
3. Persistent teacher absenteeism to accommodate other income-producing work.	Medium	Medium	(h) Set up control mechanisms by parents' associations to help monitor performance. Measures (a)–(g) above also apply.

Source: Asian Development Bank.

SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

Country/Project Title: Samoa/ SchoolNet and Community Access Project

**Lending/
Financing
Modality:**

Project (ADF Grant)

**Department/
Division:**

PARD/PAHQ

I. POVERTY ANALYSIS AND STRATEGY

A. Linkages to the Country Partnership Strategy

The Government's education policies and strategies for 1995–2005 focus on major education reforms, and a number of activities have successfully been completed. Enrollment rates in Samoa are very impressive compared with those of other Pacific countries. Still, the gains have not been equally shared. Poor students drop out without acquiring useful skills. The Project will address the gaps in the education sector by providing e-learning facilities and materials, strengthening pre- and in-service teacher training programs, and improving the examination and assessment system in all 22 districts in the country. The Project will address the efficiency of learning systems and the capacity of teachers to provide modern teaching methods using information and communication technologies (ICT) in a manner that will increase the relevance of education to children and contribute to reduced dropout rates and increased achievements both at school and in future employment.

B. Poverty Analysis

Targeting Classification: Targeted intervention

1. Key Issues

Unemployment and the lack of appropriate schooling are cited as two major causes of hardship among youths. An emerging trend of increased dropout rates among youths in both rural and urban areas is perceived, leaving an increasing number of youths unemployed and with little prospect of securing good jobs. In rural areas, the migration of the young to urban areas has left large tracts of plantation lands idle. Rural children generally have relatively limited access to secondary education. Only 22% of the population is concentrated in urban Apia, and almost half (48%) of the population lives in predominantly rural areas (northwest Upolu and Savai'i).¹ Eighteen of the 42 secondary schools are in Apia and eight in northwest Upolu. Schools in Apia are considered to be much better than in other areas. Demand for schooling in Apia is therefore high, and as a result schools there are relatively large. Schools in rural areas often operate in low-quality facilities and with few learning inputs. Considerable inequity therefore exists in access to secondary education. The emerging pattern is dissatisfaction in communities with poor health facilities and services, which describes the state of most school facilities on Upolu. The lack of market opportunities for agricultural produce and communication infrastructure were the primary sources of dissatisfaction for communities consulted in Savai'i. Overall, the perceived lack of infrastructure and services and/or their poor quality have significantly contributed to hardship. Lack of commitment to customer service by government departments was perceived to be a primary reason for the nondelivery and/or deterioration in the quality of needed services and existing facilities. Consultations identified the following community priorities to address causes of hardship in society: (i) reducing the cost of living, (ii) making loan assistance accessible, (iii) supporting agricultural development, (iv) providing services and infrastructure especially for education, and (v) making housing assistance accessible. In addition, the following capacity-building needs were identified to strengthen community efforts in addressing hardship in the community: (i) business skills, (ii) cattle-farming skills, (iii) fund raising, (iv) safe drinking water, (v) school improvement activities, (vi) nutrition education, (vii) road maintenance, (viii) computer literacy, and (ix) management skills for village councils.

2. Design Features

The Project will improve the quality of secondary education by improving access to technology and e-learning materials with better classrooms, facilities, equipment, and trained teachers. The Project will also provide communities with access to SchoolNet learning centers for use as life-long learning tools and for other business. The Project will benefit children from rural and economically disadvantaged households in all 22 districts in the country. Students and communities will benefit from advanced learning and knowledge-sharing opportunities, as well as from improved potential for employment. Teachers will benefit from improved teaching resources and capabilities, which will benefit children from rural and economically disadvantaged households. The monitoring and evaluation built into the project design will ensure that project funding and resources are in fact transferred to secondary schools in all the districts to ensure equitable learning outcomes for all.

¹ Abbott, D. 2002. *Discussion Papers, Poverty and Hardship Assessment*. Manila. ADB. 2002. *Technical Assistance for National Poverty Reduction Strategies for Pacific Developing Member Countries*. Manila (TA 6002-REG, September).

II. SOCIAL ANALYSIS AND STRATEGY

A. Findings of Social Analysis

Variations in student's learning achievement and opportunities for learning remain significant, particularly between urban and rural areas. Dropout rates are high, as are repetition rates, and have not changed markedly since 1997. Poor families are adversely impacted by the low performance. Samoan school children and teachers outside of Apia are physically isolated from those in the capital and have limited access to good teaching resources, library facilities, and alternative knowledge sources. This lack of high-quality teaching and learning materials has implications for equitable learning outcomes and will be addressed by the Project.

Communication and access to information is limited for rural communities, contributing to isolation and lost opportunities. The isolation of communities, limited availability of ICT facilities, and lack of sufficient skills in using ICT hinder access to knowledge and skills that can help communities improve their ability to seek national and global information on employment, open up new opportunities, and maintain and improve their environment to lead healthier and more productive lives.

B. Consultation and Participation

The project is designed for broad stakeholder participation, including key national, district, and village policymakers, as well as on extensive pilot activities under the SchoolNet pilot project. Focus group meetings and workshops were conducted with different education and training agencies, local leaders, civil society, communities, and nongovernment organizations. Besides workshops to discuss the issues, timely consultations with government staff were held during the technical assistance. School teachers, principals, parents, and students were consulted during technical assistance implementation. The timing, venue, and method of organizing public consultations were arranged so that disadvantaged groups could attend and have a chance to speak out. Special attention was paid to consultations with local people about the selection of school sites and of beneficiaries.

The full participation of project beneficiaries and stakeholders started with the feasibility stage and will continue throughout project implementation, monitoring, and evaluation with planning in the Ministry of Education, Sports, and Culture; school level business planning; and highly participative training programs. The Project takes a participatory approach, with community awareness programs and consultative workshops. The rapid evolution of new technology will be taken into account and implementation adjusted accordingly. Partnership arrangements with communities and the information technology private sector will ensure long-term community participation. The Project will complement Education Sector Project II (ESP II) activities and will contribute to the achievement of ESP II outcomes.

C. Gender and Development

1. Key Issues

Gender inequity is not a major issue in Samoa, especially with regard to education opportunities. Recent studies on gender and ICT have proven that ICT can provide rural people with information related to their business, reduce the costs of remittances, and put microfinance within the reach of poor men and women. The design includes activities to empower women at the community level to avail themselves of the benefits of ICT. The project design ensures the full participation of women and vulnerable groups at all stages of the Project, including in community awareness and consultative workshop programs. The inclusion of e-centers and capacity development at the community level will help women to access and benefit from increased awareness, knowledge, and use of ICT in daily life and in operating their businesses.

2. Key Actions

Measures included in the design to promote gender equality and women's empowerment—access to and use of relevant services, resources, assets, or opportunities and participation in decision-making processes:

- Gender plan Other actions/measures No action/measure

III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS			
Issue	Significant/Limited/ No Impact	Strategy to Address Issue	Plan or Other Measures Included in Design
Involuntary Resettlement	None	n/a	
Indigenous Peoples	None	n/a	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input type="checkbox"/> Indigenous Peoples Framework <input checked="" type="checkbox"/> No Action
Labor <input checked="" type="checkbox"/> Employment opportunities <input type="checkbox"/> Labor retrenchment <input type="checkbox"/> Core labor standards	Not significant	The Project will directly and indirectly create job opportunities for skilled labor.	<input type="checkbox"/> Plan <input checked="" type="checkbox"/> Other Action ⁱ <input type="checkbox"/> No Action
Affordability	Significant	Community e-centers to generate operating costs and a government commitment to fund the operating and replacement costs	<input type="checkbox"/> Action <input checked="" type="checkbox"/> No Action
Other Risks and/or Vulnerabilities <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Human trafficking <input checked="" type="checkbox"/> Others (conflict, political instability, etc), please specify	Significant	The risk of small remoter schools and communities not being able to maintain or fund the SchoolNet initiative, and thus creating selective access and increased marginalization of poorer households, will be addressed by including all secondary schools and a partnership cost-sharing arrangement for operating costs, which takes into account the size and capacity of individual communities.	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action
IV. MONITORING AND EVALUATION			
Are social indicators included in the design and monitoring framework to facilitate monitoring of social development activities and/or social impacts during project implementation? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No The design and monitoring framework provides indicators for equitable learning outcomes for all secondary school students and communities by gender.			

ANALYSIS OF FINANCIAL SUSTAINABILITY

A. Introduction

1. The ADB grant and committed counterpart funds will finance investment costs and recurrent expenditures of the SchoolNet and Community Access Project (the Project) until 2012. Additional expenditures will be incurred beyond 2012 for hardware replacement, software upgrades, maintenance, and other recurrent costs, including licenses, connectivity fees, utilities, and consumables. This appendix identifies incremental expenditures and presents a preliminary analysis of project financial sustainability. The Project will help the Ministry of Education, Sports, and Culture (MESC) to develop a medium-term expenditure framework for the entire sector during Stage 1 of the Project as a precondition for proceeding to Stage 2. Supplementary Appendix I presents further details.

B. Incremental Funding Implications

2. Table A11 presents the total cost-of-ownership analysis, which estimates annualized incremental expenditures. Quantifiable savings and revenues are also estimated for (i) user fees for after-school activities in the Community Action Program (CAP), (ii) contributions from a universal services fund, and/or (iii) efficiency gains through the use of information and communication technologies (ICT) in instruction in small and remote schools. The analysis concludes that incremental expenditure requirements from 2013 will be about \$550,000 per annum.

Table A11: Annualized Incremental SchoolNet Funding Requirements (2013–)
(\$ '000)

Item	Amount ^a
A. Cost of Ownership (incremental expenditures)^b	
1. Replace school hardware	195.0
2. Upgrade or replace school software	21.0
3. Replace school office equipment	52.0
4. Replace or upgrade MESC equipment and software	10.0
5. Replace school furniture	14.0
6. School licenses and service contracts	29.0
7. School utilities and consumables	168.0
8. Training or retraining teachers	10.0
9. Contingencies ^c	100.0
Subtotal (A)	599.0
B. Quantifiable Savings and Revenues	
1. User charges for after-hours usage (CAP) ^d	13.0
2. Universal services fund ^d	13.0
3. Efficiency gains from SchoolNet ^e	23.0
Subtotal (B)	49.0
Incremental Funding Requirements (A – B)	550.0

CAP = community action program, MESC = Ministry of Education, Sports, and Culture.

^a Annualized expenditures from 2013 onwards expressed in constant 2007 dollars.

^b Assumes that hardware, software, and equipment will be replaced or upgraded every 4 years and that furniture will be replaced every 10 years.

^c Computed at 20%.

^d Estimated at \$25 per school per month.

^e Estimated at 1% of salaries.

Source: Asian Development Bank estimates.

C. Options for Financing Incremental Expenditures

3. The analysis has considered three options for meeting incremental SchoolNet funding requirements for 2013 and beyond. Option 1 would be continued reliance on external donor assistance for an indefinite period into the future. Development partners have indicated a willingness, in principle, to commit to long-term support, but this option has been rejected as inconsistent with the principle of sustainability.

4. Option 2 would be to fund the incremental expenditures through an overall increase to the education budget. Samoa has experienced an average annual growth of real gross domestic product (GDP) of about 4% over the period 1993–2007, which translates into an increase of about 20% over this period. Samoa already has a relatively high level of education spending, so further increases are not encouraged. For this reason, this option has also been rejected.

5. Option 3 would be to provide additional funding from the fiscal space created by ESP II resource reallocations (within existing baselines) and service-delivery improvements. In examining sustainability risks, ESP II states that “the development of a sector policy and financing framework with sustainable operation and maintenance costs—supported by ADB and other development partners under the Education, Policy and Strategic Plan (EPSP)—will address this risk.”¹

6. ESP II emphasizes strengthening capacity for policy analysis and planning in MESC to improve efficiency. As noted in the ESP II report and recommendation of the President (para. 41) MESC operates “in an environment of increasingly constrained resources, which makes improvements in the efficiency in service delivery imperative.” It is anticipated that a range of efficiency gains will be possible through rationalizing small schools, multi-grade teaching, improving teacher preparation, better teaching and learning materials, and improving internal efficiency of schooling.

7. It is anticipated that the Government’s strategy for improving efficiency will be included in the MECS Strategic Plan as a specific assurance in the ADB loan agreement: “Within 12 months of loan effectiveness, the Government will (i) develop an evidence based Education, Sports and Culture Policy and Strategic Plan (2006-2014) for the education sector ... (ii) provide a copy of such strategic plan to ADB, AusAID, NZAID, and other relevant development partners for review and comments prior to tabling such plan for cabinet approval; (iii) consider comments from ADB, AusAID, and NZAID prior to tabling such policy and plan for approval; and (iv) table it for cabinet approval.”

C. Conclusion

8. SchoolNet-related incremental expenditures for years 2013 and beyond will be financed by resource reallocations and savings realized through efficiency gains. The SchoolNet Project includes additional resources to help the Government develop a comprehensive financing framework, medium-term expenditure framework for the sector, and multi-year projection models of financial sustainability. Successful completion of these activities during Stage 1 will demonstrate the financial sustainability of the Project and constitute a pre-condition for proceeding to Stage 2.

¹ ADB. 2005. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grant to the Independent State of Samoa for the Education Sector Project II*. Manila (Loan 2220-SAM, for \$30.00 million, approved on 16 December).
