ASIAN DEVELOPMENT BANK

TAR:SAM 36513

TECHNICAL ASSISTANCE

TO THE

INDEPENDENT STATE OF SAMOA

FOR SUPPORTING THE

SAMOA SCHOOLNET AND COMMUNITY ACCESS PILOT PROJECT

December 2003

CURRENCY EQUIVALENTS

(as of 15 November 2003)

Currency Unit	–	tala (ST)
ST1.00	=	$0.3495
$1.00	=	ST2.86

ABBREVIATIONS

ADB	–	Asian Development Bank
AusAID	–	Australian Agency for International Development
CAP	–	community access program
EU	–	European Union
ICT	–	information and communication technology
JICA	–	Japan International Cooperation Agency
MESC	–	Ministry of Education, Sports and Culture
NZAID	–	New Zealand Agency for International Development
TA	–	technical assistance

NOTE

In this report, $ refers to US dollars.

This report was prepared by L. Bodda and K. Chowdhury, Pacific Department.

I. INTRODUCTION

1. The Government of Samoa requested technical assistance (TA) from the Asian Development Bank (ADB) for the application of information and communication technology (ICT) to improve the quality of education and teacher support in Samoa, through the interconnection of local schools and creation of community access facilities. The ADB Fact-Finding Mission visited Samoa from 5 to 9 August 2002[1] and reached an understanding with the Government on the objectives, scope, cost, financing, and implementation arrangements for the TA.[2] The TA logical framework is in Appendix 1.

II. ISSUES

2. Poverty and hardship are not prevalent in Samoa but are issues in certain pockets, especially in the rural areas. On the basis of the 1997 household income and expenditure survey,[3] nearly half of the households in Samoa were estimated to be under the basic needs poverty line, but these results were widely questioned. Applying the 2002 survey results on the food poverty line, indicates that an estimate of 7.6% of households had income and expenditure less than the food poverty line.[4] Applying the same results on the basic needs poverty line, estimates that 20.3% of total households had per capita income and expenditure below the basic needs poverty line level. In the medium to long term, education is the best way for vulnerable individuals and families to achieve financial stability and rise above the poverty line. However, new work opportunities (in Samoa and overseas) require increasingly higher qualifications. ICT exposure could facilitate more and better job opportunities. Community consultations by ADB over the past few years have identified the need to strengthen schools and computer literacy as part of a strategy for addressing hardship.

3. Since the Government's adoption of education policies and strategies for 1995–2005, progress has been made toward the Millennium Development Goals and in areas of (i) textbooks and learning resources for primary education, (ii) development of a new secondary curriculum and textbooks, (iii) education for special needs, (iv) early childhood education, and (v) bilingual language policy. The management capacity of the Ministry of Education, Sports and Culture (MESC) has been strengthened. However, emerging issues relate to unemployment, high school dropouts, repetitions, and deteriorating school cycle completion rates. The quality of education needs improvement, especially in rural areas, where well-trained teachers, with adequate skills to effectively transmit knowledge and manage the classrooms, are in short supply. Rural teachers often cannot travel to Apia (the capital) to take advantage of ongoing in-service training and refresher courses to be on par with their urban counterparts. They tend to be cut off from interaction with similar professionals, and yearn to discuss day-to-day activities with their peers, and to exchange their various professional experiences. In many countries, a "faculty club" has become an attractive and indispensable asset to the teaching profession where teachers can communicate on issues of common interest, exchange curriculum information, collaborate on developing courses, provide mutual support on their own in-service

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[1] The Mission comprised Luigi Bodda, project economist, Pacific Operations Division (PARD). Patrick Julien, ICT principal consultant, team leader of TA 5990-REG (ADB. 2001. *Information and Communication Technology Assessment in the Pacific.* Manila.) provided assistance to the Mission.

[2] The TA first appeared in the *ADB Business Opportunities* (Internet edition) on 28 November 2003.

[3] United Nations Development Programme-Secretariat of the Pacific Community. 1997. *Food and Basic Needs Expenditure Report.* Apia.

[4] The international standard of $1 per capita per day, on a purchasing power parity basis, is roughly equivalent to the food poverty level in Samoa. Based on the 2002 data, only about 5% of the population are below this standard, a remarkable achievement.

training progress, and find solutions to occupational problems with the support of peers or government specialists. Samoan school children and their teachers who live and work outside of Apia are physically isolated from those at the capital, which is contributing to inequitable educational outcomes.

4. Furthermore, individuals learn in different ways. The traditional passive classroom scenario, where the teacher lectures and the student reads and memorizes, is not productive for some types of students. In the Pacific, where a prevailing oral tradition endures, learners become more and more frustrated, and drop out of school. The use of multimedia, which brings into play more of the senses, can overcome most of such shortcomings with the right teaching approaches, and good materials. Adding a degree of interactivity—where the learner receives immediate and appealing feedback for his or her efforts, and is then guided through an interactive process to correct errors—can provide an accelerated and highly motivating learning environment.

5. The Government recognizes that the education system has to prepare people for improving productivity and opportunities in the workforce, including opportunities in other countries, as remittances significantly contribute to economic growth and reduce hardship. To achieve this goal, the Government is determined to equalize access to quality education for all. One of the best ways to improve the quality of education in rural areas is to introduce ICT to create a better learning environment for the teachers and students. While their counterparts in Apia have access to electronic mail, Internet, and personal computers to perform their research and assignments, learners in rural areas have to rely only on printed materials which, given the rapidity of change in today's world, are rapidly becoming obsolete. Learning through ICT will ensure that sufficient well-qualified students are prepared and the knowledge base is continually upgraded for the opportunities generated in the private sector by the ongoing economic and public sector reforms.

6. A key objective of the ICT policy of the Government of Samoa is to ensure access to ICT to all Samoans. Within this objective, the ICT policy guideline principle #1 (human resources) states that ICT will be used to inform and connect the population of Samoa and ensure that it benefits from flexible and appropriate education, training, and experiences; and guideline principle #2 (appropriate infrastructure) states that appropriate ICT infrastructure (will be developed) to support development for Samoa. The proposed Samoa SchoolNet and Community Access Pilot Project (the Project) will help to address these objectives by enhancing the environment for poverty reduction in rural areas of Samoa by improving access to basic services through improved communications.

7. ADB's Long-Term Strategic Framework supports ICT for development and bridging the digital divide, the gap between the information rich and information poor, within and across its developing member countries.[5] ADB's Pacific strategy[6] states that ADB will work with the Pacific developing member countries to use ICT to overcome constraints associated with smallness and isolation, and to realize potential gains offered by links to a global market. The ADB-financed education sector project loan,[7] and the associated TA[8] are assisting the Government to rehabilitate and expand 19 schools, and improve the educational system in the greater Apia

[5] ADB. 2001. *Moving the Poverty Reduction Agenda Forward in Asia and the Pacific: The Long-Term Strategic Framework of the Asian Development Bank (2001-2015)*. Manila.
[6] ADB. 2000. *A Pacific Strategy for the New Millennium.* Manila.
[7] 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.* Manila.
[8] ADB. 2000. *Technical Assistance to the Independent State of Samoa for Education Support.* Manila.

area. External funding concentrates heavily on the education sector. The Australian Agency for International Development (AusAID), European Union (EU), Japan International Cooperation Agency (JICA), New Zealand Agency for International Development (NZAID), United Nations agencies, and others have been involved in a number of projects in the education sector. AusAID is supporting strengthening MESC and providing primary and infant educational materials as well as scholarships for postgraduated studies. NZAID funds the secondary school education curriculum resource development project. EU and JICA have been involved in education infrastructure.

8. The proposed Project will complement this ongoing assistance by exposing rural students and teachers to ICT, thus enabling them to access the same materials and resources that are available to students and teachers in Apia. The Project will also expand the ongoing assistance through the training of educators on developing and using distance-learning courses. A large proportion of Samoa's graduates emigrate to larger neighbors like Australia, New Zealand, and the United States of America. ICT exposure will help them move up the job ladder, since most jobs in those countries require capabilities in, or at least familiarity with, computers. The TA will also improve the graduates' chances of setting up their own businesses in Samoa, and of acquiring jobs in the local market, with knowledge and hands-on exposure to ICT being a high priority for employers.

9. The proposed Project is consistent with the assistance being provided by ADB and other external funding agencies to the education sector. It is also consistent with the recommendations of the ADB-financed strategies for equitable growth and hardship alleviation:[9] to invest in communication services to promote economic growth and improve services in rural areas, and ensure that access to and quality of education services are equal throughout the country.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

10. The TA will improve quality and efficiency of education; enable access to global information through improved access to ICT; and assist the Government in increasing social inclusion and reducing poverty in the rural areas by improving connectivity and, through it, education, governance, health, and access to the Internet. The outcomes of the Project will be (i) demonstrating the applicability of “SchoolNet” and community access program approaches for Samoa, (ii) implementing plans and policies for SchoolNet and community access facilities, and (iii) improving the teacher training curriculum and materials for distance learning.

B. Methodology and Key Activities

11. The TA will initially provide connectivity, software, and appliances for selected schools, supported by members of a stakeholder group (for instance, women groups), and leaders within each local community. Following intensive and specialized teacher training in (i) the use of ICT in the classroom, and (ii) the development and use of multimedia learning materials, the teachers in each school, in close partnership with learners and administrators, will become more comfortable and competent in a computerized environment. The Project will develop distance education facilities and curricula for the teachers in remote outlying areas where they normally

[9] Lightfoot, Chris, Josephine Quitazol, and David Abbott. 2002. *Strategies for Equitable Growth and Hardship Alleviation*. ADB: Manila.

would not have a chance to upgrade their skills and knowledge. The Project will also provide the students with the skills and access to information they do not have at present. The TA consultants will determine the number of schools that can be supported by the pilot testing.

12. The main beneficiaries will be the teachers, students, and other people in the selected rural areas who will enjoy better and cheaper telecommunications services. In the longer term, the general population of Samoa could benefit from this type of assistance through better education, community access to global information, and an improved environment for business activities. Furthermore, the TA will illustrate how cost-effective ICT technologies made available in remote and poorer communities can (i) improve communications and access to the Internet; (ii) promote entrepreneurship through community access centers; and (iii) help improve education, health, and governance. Overall economic, education, and health improvements may be measured by establishing baseline qualitative and quantitative data during the early phase of the TA. The TA should be implemented in close connection with other ADB- and externally-funded education projects.

13. The implementation of the Project will be divided into two phases. Phase 1 will include (i) needs identification and alignment with existing projects, (ii) establishment of a business perspective and sustainability, (iii) assessment of courseware requirements and general design for in-classroom and distance learning environments, (iv) assessment of ICT hardware and software system architecture and design requirements, (v) design of the SchoolNet management structure and support groups, and (vi) set-up of performance and monitoring indicators.

14. Based on the results of phase 1, phase 2 will include (i) detailing implementation requirements; (ii) acquiring, installing, and testing ICT equipment; (iii) making the system operational for education and other purposes; (iv) training users and support staff; (v) developing in-class and distance learning courseware materials and testing, deploying and revising them as needed; (vi) monitoring and fine-tuning the system to improve its sustainability; and (vii) streamlining the system to simplify replication in other rural schools in the country. Outline terms of reference for the consultants are in Appendix 2.

C. Cost and Financing

15. The TA is estimated to cost $760,000 equivalent, comprising $530,000 in foreign exchange and $230,000 equivalent in local currency costs. ADB will provide the entire foreign exchange cost and $70,000 equivalent of the local currency cost; the total of $600,000 will be financed on a grant basis by ADB's TA funding program. The Government will contribute the balance of the local currency cost of $160,000 equivalent through the provision of counterpart staff, office space, administrative services, and data communication services. Details of the cost estimates and financing plan are given in Appendix 3.

D. Implementation Arrangements

16. The Ministry of Finance will be the Executing Agency, and MESC will be the Implementing Agency for the TA and the Project. The Government will provide all available relevant information and facilitate the collection of socioeconomic data. The Government will also help ensure adequate cooperation from local government bodies and nongovernment organizations active in the TA and project areas. The TA will work with the education steering committee for overall policy guidance.

17. ADB will engage the services of international and domestic consultants, with relevant experience in all aspects of the specified scope of work. The consultants will be selected through the quality- and cost-based selection method with full technical proposal submission, in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for engagement of domestic consultants. The international consultants will have expertise in distance learning and community development, communication technologies, and ICT training of trainers. The domestic consultants will have expertise in community development and participation. An estimated total of 19 person-months of consulting services will be required: 9 for international and 10 for domestic specialists.

18. MESC and the Government will appoint or recruit a TA project manager with qualifications acceptable to ADB.[10] The TA manager will coordinate with the steering committee of the ADB-financed education sector project. Equipment and services, financed under the TA, will be procured in accordance with ADB's *"Guidelines for Procurement"*.

19. The TA is expected to commence in April 2004 and be completed by March 2005. Within 3 weeks after commencement of the TA, the consultants will submit a brief inception report summarizing their initial findings, identifying specific issues, and suggesting changes to the methodology and program (if any). Within 6 months after TA commencement, the consultants will submit a draft final report for ADB and MESC comments. A tripartite meeting among the Government, ADB, and the consultants will discuss the draft final report and any changes to be made. Subsequently, the consultants will make all the recommended changes and submit the final report within 1 month of the tripartite meeting. The TA will produce design and analytical results that are fully compliant with all relevant ADB policies. The consultants will submit three copies of all reports to ADB and six copies to the Government, as well as electronic copies for future dissemination.

IV. THE PRESIDENT'S DECISION

20. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of $600,000 on a grant basis to the Government of Samoa for Supporting the Samoa SchoolNet and Community Access Pilot Project, and hereby reports this action to the Board.

[10] The TA manager, if recruited, could eventually become the Information Technology coordinator within the Ministry of Education.

TECHNICAL ASSISTANCE PROJECT LOGICAL FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
Goal Enhance the enabling environment for poverty reduction (improving access to basic services and improving the quality of life) through improved communications.	▪ 50% reduction in population under poverty line from the current base line by 2015. ▪ Improved efficiency and effectiveness (reduction in dropout and repetition rates) of basic services delivery by 2015.	National statistics, Government and non-government organization (NGO) reports and assessments.	
Purpose ▪ Improve quality and efficiency of education. ▪ Enable access to global information.	▪ Improved teacher support in remote communities (the technical assistance [TA] is to determine qualitative indicators) by 2007. ▪ 50% teachers attend and finish in-service training by 2007 (quantitative indicators to be determined). ▪ Students learning outcomes improved by 2% by 2007 (indicators and target dates to be determined). ▪ Services readily available to selected schools by 2005. ▪ All teachers, school staff, and students in target schools have Internet access by the end of 2005.	▪ Schools connected by information and communication technology (ICT) improve their grade points to 5% above the average. ▪ Minutes of meetings with stakeholders. ▪ Ministry of Education statistics. ▪ International linkages. ▪ Network traffic.	▪ Favorable political and macroeconomic environment. ▪ Teachers interested and committed.
Outputs ▪ Demonstrating the applicability of SchoolNet and community access program (CAP) approaches for Samoa. ▪ Implementation plans and policies for "SchoolNet" and community access facilities. ▪ Improved teacher training curriculum and materials for distance learning.	▪ By 2nd month of implementation, strategy document reviewed and endorsed by majority of stakeholders. ▪ By 6th month of implementation, implementation plan successful, acceptable in most of the target schools. ▪ Interconnected schools/community centers established by December 2004 (indicators and target dates to be determined). ▪ By 2nd month of implementation, hardware, software, and other facilities installed and running in identified schools (indicators and target dates to be determined). ▪ Distance education facilities and curricula for teachers developed and tested 2 months before the end of the TA (indicators and target dates to be determined). ▪ All the teachers in selected pilot	▪ Samoa SchoolNet portal opened. ▪ Phase 2 planning progress. ▪ Local operating budgets set and monitored. ▪ Pages of information available and accessed. ▪ Repair, troubleshooting, and technical advice service arrangements organized. ▪ Community access business plan adopted.	▪ Infrastructure operational. ▪ Ministry of Education (MOE) budget for integration of SchoolNet into regular operating budgets. ▪ Availability and continuity of local and national support.

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
	schools trained and capable in the development and use of multimedia learning materials (indicators and target dates to be determined). ▪ Students have skills and access to information and preliminary courses by 2005. (Indicators and target dates to be determined.)		
Activities ▪ Draft SchoolNet and CAP plans and activities to adapt schools through requirements gathering, prototyping, review meetings or workshops, acceptance procedures and testing and implementation procedures. ▪ With stakeholders, propose a web portal for educational services in Samoa. ▪ Prepare inventory of all learning materials. ▪ Prepare education course ware and community access directions. ▪ Draft access, services, sustainability, management guidelines, and operating practices for SchoolNet and CAP in the schools. ▪ Finalize strategic and operating plans for SchoolNet and CAP. ▪ Design, acquire and deliver, test, and commission telecom facilities, personal computer network and other facilities needed to function as a community access point and as a distance learning facility. ▪ Design, develop, and deliver the curriculum design and course ware for teacher in-service training and for students. ▪ Test and improve, where necessary, the distance learning courses and curriculum with pilot groups. ▪ Train staff, students, and teachers who will support the hardware and software system and the actual users of the facility. ▪ Implement the system in the different sites.		▪ Project progress reports. ▪ Review mission's reports. ▪ Final report.	

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
▪ Monitor and manage the facility and the service offerings.			
Inputs ▪ Consultants: 9 person-months international and 10 person-months domestic consultant services. ▪ Counterpart staff: steering committee, technical working group. ▪ Personal computer for each school: 10 units ($15,000) ▪ Uninterruptible power supply system: 10 units ($3,000) ▪ Software bundles: 10 units ($5,000). ▪ Printers: 2 units ($1,500). ▪ Scanner/copier: 1 unit ($500). ▪ Television and video cassette recorder: 1 unit ($500). ▪ Copier: 1 unit ($500). ▪ Set of network connectivity equipment, including antennas $3,000. ▪ 1 service, local area network software, peripherals, cabling, interface devices, connectors, etc. at a local budget of up to $35,000 per school.		Audit report.	

OUTLINE TERMS OF REFERENCE FOR THE CONSULTANTS

1. The technical assistance (TA) will provide connectivity, software, and appliances for selected schools, supported by members of a stakeholder group (for instance, women's groups), and leaders within each local community. Following intensive and specialized teacher training in (i) the use of information and communication technology (ICT) in the classroom, and (ii) the development and use of multimedia learning materials, the teachers in each school, in close partnership with learners and administrators, will become more comfortable and competent in a computerized environment. The TA will develop distance education facilities and curricula for the teachers in remote outlying areas where they normally would not have a chance to upgrade their skills and knowledge. The TA will also provide the students with the skills and access to information they do not have at present. The TA consultants will determine the number of schools that can be supported by the pilot testing. The pilot project will be implemented by a team of consultants who will review the lessons learned from similar initiatives in the Pacific, and will work closely together and with the counterpart staff of the Ministry of Education, Sports and Culture (MESC) to combine and share their expertise and findings.

A. Community Access and Information Technology Development Expert and Team Leader (international, 3 person-months)

2. The expert will have relevant background in ICT policy development, community access (or telecenter) project operations, distance education applications, and sustainability analysis (business planning). The work will include

(i) visiting potential local communities to discuss the proposal and obtain input to the design on location, infrastructure, building environment, content, services delivery, management, support groups, technical support, and sustainability issues, including an overview of services to be offered by the community access program (CAP); and to estimate budgets and establish realistic price levels and demand patterns of services that could be offered;

(ii) consulting with the main stakeholders in Apia and in the region from the political, social, educational, and economic perspectives to identify potential problems and seek advice on the initial set-up and continuing operations to arrive at a strategic plan that will garner general support from the principals in Samoa;

(iii) in coordination with the Government and other stakeholders, selecting up to four schools/communities to be connected for the pilot projects, based on need, endowment (financial and physical, e.g., power, telephone line, etc.), back-up technical services, and replicability criteria;

(iv) meeting with the National University of Samoa, the University of the South Pacific, MESC, and other knowledge providers to (a) agree on the distance learning objectives and support mechanisms; (b) review the proposed curricula for in-service teacher training, teacher training in the use of ICT in the classroom, and in instructional design; (c) assess the alternative content delivery platforms; and (d) identify other services that could be offered through the system;

(v) coordinating with ADB's education sector project team and other external assistance to the ICT and education sectors in order to create synergies and avoid duplication;

(vi) drafting access, services, sustainability and local and system management guidelines and operating practices for SchoolNet and the subsequent CAP in collaboration with other team members;
(vii) finalizing the strategic and operating plans for SchoolNet and its offshoot, CAP, with work plan, budgets, and timelines; and harmonizing the socioeconomic reports with that of the communication engineer(s);
(viii) assisting the trainer in designing and developing the curriculum for teacher in-service training and selected topics for students where these are not readily available commercially; testing, getting feedback, and improving the curriculum where necessary, and installing the system in the different sites;
(ix) assisting the communications engineer in designing the overall hardware and software systems architecture needed for the Project;
(x) managing the team in the development, rollout, and operations of the SchoolNet concept and the CAP;
(xi) conducting monthly monitoring of project progress and identified performance indicators; and
(xii) undertaking any reasonable requests made by the Asian Development Bank (ADB) in association with the Project.

B. Communication Engineer(s) (international, 3 person-months)

3. The consultant(s) will have relevant background and practical experience in advanced telecommunications applications and networking; including local area network, systems and applications, and distance learning technology. The work will include

(i) reviewing and documenting current and planned available delivery infrastructure and network configuration to and within local schools identified for the pilot project, and identifying enhancements required to deliver enough connectivity to each pilot school;
(ii) drafting the proposed system architecture, based upon optimal use of existing networks and infrastructure, according to the best practices of technical and economic viability;
(iii) preparing detailed specifications for equipment and services in collaboration with MESC, Treasury, Samoa Communications Ltd., Computer Services Ltd., and other stakeholders;
(iv) acquiring, installing, testing and commissioning the telecom facilities, personal computer network, and other facilities needed to operate the distance learning and community access points;
(v) training the facility, staff, students, and teachers who will support the hardware and software system;
(vi) preparing a technical overview for national and local access points to provide enhanced services e.g., telephony, Internet dial-up, fax, copying, word processing, audio and video services, postal offerings, government services, etc.;
(vii) developing templates and designing them for replication in other Pacific countries in collaboration with the socioeconomic team; and
(viii) finalizing the technical project description, including budgets and forecasts.

C. Trainer of Trainers (international, 3 person-months)

4. The trainer will have relevant background and expertise in web-based, satellite, and teleconference learning. The work will include

(i) preparing an inventory of all learning materials suitable for web delivery in Samoa, including course ware and services available from recognized foreign institutions that could be localized under license or other conditions;
(ii) designing and developing course ware for in-school training and distance learning situations, and installing, testing and implementing it; and
(iii) monitoring progress on a monthly basis, noting obstacles, better ways of doing things, and issues specific to the country, and identifying and validating performance indicators to measure progress of the operation.

D. Social Development Consultant(s) (domestic, 10 person-months)

5. The consultant(s) will have relevant background and extensive experience in mobilizing community resources, and preferably in the use of computers in schools. The work will include

(i) assisting the organization of data gathering in the TA impact areas, and consulting with relevant officials from the Government and other organizations to supplement available secondary data;
(ii) helping the preparation of a poverty profile of the project area and project impact area;
(iii) assessing the pro-poor impact of the TA and Project in line with ADB's poverty reduction strategy;
(iv) providing a detailed discussion of the potential impacts on the economy and society in the project area, particularly on the poor;
(v) identifying ways to make the Project pro-poor;
(vi) facilitating consultation with the communities for public awareness and acceptance of the project, undertaking social assessment in accordance with ADB's *Handbook on Poverty and Social Analysis,* identifying impacts on indigenous peoples, identifying any resettlement effects, and designing appropriate socioeconomic monitoring and management plans to be implemented by MOE (if required, prepare resettlement plans in accordance with ADB's *Policy on Involuntary Resettlement* and *Handbook on Resettlement,* and identify appropriate action or prepare an indigenous peoples development plan in accordance with ADB's *Policy on Indigenous Peoples)*; and
(vii) facilitating awareness campaign and capacity building, and conducting stakeholder workshops, ensuring full participation of women and vulnerable groups at all stages of the TA.

COST ESTIMATES AND FINANCING PLAN
($'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing[a]			
1. Consultants			
a. Remuneration and Per Diem			
i. Education/Community Expert	60	0	60
ii. Communication Engineer(s)	60	0	60
iii. Trainer of Trainers	60	0	60
iv. Domestic Facilitator(s)	0	40	40
b. International and Local Travel			
i. International Travel	40	0	40
ii. Local Travel[b]	0	7	7
c. Reports and Communications	10	3	13
2. ICT Equipment			
a. ICT Laboratory[c]	140	0	140
b. Network Extension[d]	40	0	40
c. Web Authorizing Tools (software)	20	0	20
d. Freight and Installation	15	10	25
3. Representation at Contract Negotiations	5	0	5
4. Contingencies	80	10	90
Subtotal (A)	**530**	**70**	**600**
B. Government Financing			
1. Office Facilities and Administrative Support	0	40	40
2. Counterpart Staff	0	90	90
3. Local Travel Counterpart Staff	0	10	10
4. Contingencies	0	20	20
Subtotal (B)	**0**	**160**	**160**
Total	**530**	**230**	**760**

ICT = information and communication technology.
[a] Financed by ADB's technical assistance funding program.
[b] Includes vehicle rental and operation and local airfares.
[c] Each school will have a standard starting package of 10 personal computers ($15,000), 10 units uninterruptible power supply system ($3,000), 10 software bundles ($5,000), 2 printers ($1,500), 1 scanner and copier ($500), television and video cassette recorder ($500), copier ($500); set of network connectivity equipment, including antennas ($3,000); 1 local area network with software, peripherals, cabling, interface devices, connectors, etc. at a local budget of up to $35,000 per school.
[d] The national network will subscribe to a web caching service, e.g., advanced interactive, network extensions attached to existing pylons; site analysis, preparation, and testing.
Source: Asian Development Bank staff estimates.