



Completion Report

Project Number: 37115
Loan Number: 2076(SF)
January 2012

Viet Nam: Health Care in the Central Highlands Project

Asian Development Bank

CURRENCY EQUIVALENTS

		At Appraisal	At Project Completion
		30 November 2003	30 June 2010
D1.00	=	\$0.0000640	\$0.0000527
\$1.00	=	D15,629.00	D18,975.00

ABBREVIATIONS

ADB	–	Asian Development Bank
CPMU	–	central project management unit
DALY	–	disability-adjusted life year
DHC	–	district health center
HCFP	–	Health Care Fund for the Poor
IEC	–	information, education, and communication
IMR	–	infant mortality rate
M&E	–	monitoring and evaluation
MDG	–	Millennium Development Goal
MMR	–	maternal mortality ratio
MOH	–	Ministry of Health
O&M	–	operation and maintenance
PCR	–	project completion report
PHC	–	primary health care
PPMU	–	provincial project management unit
PSC	–	project steering committee
Sida	–	Swedish International Development Cooperation Agency

NOTES

- (i) The fiscal year of the Government of Viet Nam ends on 31 December.
- (ii) In this report, "\$" refers to US dollars.

Vice-President	S. Groff, Operations 2
Director General	K. Senga, Southeast Asia Department (SERD)
Director	T. Kimura, Country Director, Viet Nam Resident Mission (VRM), SERD
Team leader	S. Postma, Senior Health Specialist, SERD
Team member	T. P. H. Nguyen, Project Analyst, VRM, SERD

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
BASIC DATA	i
MAP	vi
I. PROJECT DESCRIPTION	1
II. EVALUATION OF DESIGN AND IMPLEMENTATION	2
A. Relevance of Design and Formulation	2
B. Project Outputs	2
C. Project Costs	5
D. Disbursements	6
E. Project Schedule	6
F. Implementation Arrangements	7
G. Conditions and Covenants	7
H. Consultant Recruitment and Procurement	8
I. Performance of Consultants, Contractors, and Suppliers	9
J. Performance of the Borrower and the Executing Agency	9
K. Performance of the Asian Development Bank	9
III. EVALUATION OF PERFORMANCE	9
A. Relevance	9
B. Effectiveness in Achieving Outcome	10
C. Efficiency in Achieving Outcome and Outputs	11
D. Preliminary Assessment of Sustainability	12
E. Impact	13
IV. OVERALL ASSESSMENT AND RECOMMENDATIONS	13
A. Overall Assessment	13
B. Lessons	14
C. Recommendations	15
APPENDIXES	
1. Project Framework	16
2. Selected Background Tables	20
3. Budget Summary and Actual Cost	26
4. List of Procured Items	28
5. Project Management Organization	41
6. Implementation Schedule	42
7. Status of Compliance with Major Loan Covenants	43
8. Project Impacts on Women and Ethnic Groups	52
9. Consulting Services at Appraisal and Utilized	59
10. Economic Analysis	60
11. Overall Assessment	64

BASIC DATA

A. Loan Identification

1.	Country	Viet Nam
2.	Loan Number	2076(SF)
3.	Project Title	Health Care in the Central Highlands Project
4.	Borrower	Socialist Republic of Viet Nam
5.	Executing Agency	Ministry of Health
6.	Amount of Loan	
	– Original Amount:	SDR13,969,000.00 (\$20.00 million equivalent)
	– Net Loan Amount:	SDR12,106,770.91 (\$18,537,707.30)
7.	Project Completion Report Number	PCR: VIE 1317

B. Loan Data

1.	Appraisal	
	– Date Started	13 October 2003
	– Date Completed	23 October 2003
2.	Loan Negotiations	
	– Date Started	11 November 2003
	– Date Completed	13 November 2003
3.	Date of Board Approval	9 January 2004
4.	Date of Loan Agreement	8 April 2004
5.	Date of Loan Effectiveness	
	– In Loan Agreement	8 July 2004
	– Actual	30 August 2004
	– Number of Extensions	1
6.	Closing Date	
	– In Loan Agreement	30 June 2010
	– Actual	4 December 2011
	– Number of Extensions	None
7.	Terms of Loan	
	– Interest Rate	1% per annum in the grace period; 1.5% per annum thereafter
	– Maturity (number of years)	32 years
	– Grace Period (number of years)	8 years

8. Disbursements

a.	Dates		
	Initial Disbursement	Final Disbursement	Time Interval
	16 November 2004	5 December 2011	84 months
	Effective Date	Original Closing Date	Time Interval
	30 August 2004	30 June 2010	70 months

b. Amount (SDR million)

Category	Original Allocation	Last Revised Allocation	Amount Cancelled	Net Amount Available	Amount Disbursed	Undisbursed Balance ^a
01 Civil Works	3.677	3.677	0.000	3.677	3.581	0.096
02A Medical Equipment	6.053	6.053	0.000	6.053	5.955	0.098
02B Other Equipment	0.197	0.197	0.000	0.197	0.487	(0.290)
02C Project Management	0.126	0.126	0.000	0.126	0.263	(0.137)
03A International Training and Materials	0.104	0.104	0.000	0.104	0.088	0.016
03B Domestic Training and Materials	1.095	1.095	0.000	1.095	0.870	0.225
04 Communication Activities	0.197	0.197	0.000	0.197	0.000	0.197
05 Consulting Services	0.349	0.349	0.000	0.349	0.365	(0.016)
06A International Transport and Travel	0.087	0.087	0.000	0.087	0.022	(0.065)
06B Domestic Transport and Travel	0.115	0.115	0.000	0.115	0.058	0.057
07 Research, Monitoring, and Evaluation	0.381	0.381	0.000	0.381	0.024	0.357
08 Project Staff	0.192	0.192	0.000	0.192	0.152	0.040
09 Interest Charge	0.355	0.355	0.000	0.355	0.241	0.114
10 Unallocated	1.041	1.041	0.000	1.041	0.000	1.041
Total	13.969	13.969	0.000	13.969	12.107	1.862

() = negative.

^a Cancelled on 4 December 2011.

c. Amount (\$ million)

Category	Original Allocation	Last Revised Allocation	Amount Cancelled	Net Amount Available	Amount Disbursed	Undisbursed Balance ^a
01 Civil Works	5.265	5.559	0.000	5.559	5.410	0.149
02A Medical Equipment	8.666	9.303	0.000	9.303	9.151	0.152
02B Other Equipment	0.282	0.293	0.000	0.293	0.742	(0.450)
02C Project Management	0.180	0.193	0.000	0.193	0.406	(0.213)
03A International Training and Materials	0.149	0.164	0.000	0.164	0.138	0.026
03B Domestic Training and Materials	1.568	1.703	0.000	1.703	1.354	0.349
04 Communication Activities	0.282	0.306	0.000	0.306	0.000	0.306
05 Consulting Services	0.500	0.543	0.000	0.543	0.569	(0.026)
06A International Transport and Travel	0.125	0.134	0.000	0.134	0.033	0.101
06B Domestic Transport and Travel	0.165	0.179	0.000	0.179	0.091	0.088

07 Research, Monitoring, and Evaluation	0.545	0.591	0.000	0.591	0.037	0.554
08 Project Staff	0.275	0.299	0.000	0.299	0.237	0.062
09 Interest Charge	0.508	0.546	0.000	0.546	0.369	0.176
10 Unallocated	1.490	1.615	0.000	1.615	0.000	1.615
Total	20.000	21.427	0.000	21.427	18.538	2.889

() = negative.

^a Cancelled on 5 December 2011.

9. Local Costs (Financed)	Appraisal	Actual
- Amount (\$ million)	8.900	8.254
- Percent of Local Costs	46.59	68.10
- Percent of Total Cost	29.08	29.50

C. Project Data

1. Project Cost (\$ million)

Cost	Appraisal Estimate	Actual
Foreign Exchange Cost	11.54	15.82
Local Currency Cost	19.03	12.11
Total	30.58	27.94

2. Financing Plan (\$ million)

Cost	Appraisal Estimate	Actual
Implementation Costs		
Borrower Financed	5.00	3.86
ADB Financed	19.49	18.17
Sida Financed	5.58	5.54
Total	30.07	27.57
IDC Costs		
Borrower Financed	–	–
ADB Financed	0.51	0.37
Sida Financed	–	–
Total	0.51	0.37

ADB = Asian Development Bank, IDC = interest during construction, Sida = Swedish International Development Cooperation Agency.

3. Cost Breakdown by Project Component (\$ million)

Component	Appraisal Estimate	Actual
1. Upgrading of Facilities and Equipment	14.87	14.64
2. Human Resources Development	4.40	2.52
3. Management and Financing	7.94	8.77
Tax and Duties	1.37	1.64
Contingencies	1.49	–
Interest Charges	0.51	0.37
Total	30.58	27.94

4. Project Schedule

Item	Appraisal Estimate	Actual
Date of Contract with Consultant		
Completion of Engineering Designs	31 Dec 2004	15 Oct 2004
– Consulting Service for Procurement and Civil Works	Jan 2005	14 Oct 2004
– Consulting Service for Developing Bid Documents of Vehicle Packages (Ambulances and Project Office Cars)	Jan 2005	16 Nov 2004
– Consulting Services for Social Development, Environment, Monitoring, and Evaluation	Jan 2005	8 Apr 2005
– International Consulting Services for Health Economics	Jan 2005	18 Apr 2005
– Consulting Service for Training	Jan 2005	15 May 2005
– Consulting Service for Bid Documents for Project Management Unit Equipment	Jan 2005	26 May 2005
– Consulting Service for Project Financial Management	Jan 2005	7 Sep 2005
– Consulting Service for Bid Documents and Supervision of Medical Equipment Installation	Jan 2005	11 Oct 2005
– Consulting Service for Developing Action Plan, Synthesis, and Implementation Activities of Subcomponent 2 in Provinces	Jan 2005	26 Dec 2005
– Consulting Service (Health Economist) for Primary Health Care for the Health Care Fund for the Poor	Jan 2005	26 Mar 2008
– Consulting Service for Health Economics for the Health Care Fund for the Poor	Jan 2005	26 Mar 2008
– Consulting Service for Civil Works in Dak Lak Province	Oct 2005	10 Sep 2004
– Consulting Service for Civil Works in Dak Nong Province	Oct 2005	26 Sep 2004
– Consulting Service for Civil Works in Gia Lai Province	Oct 2005	30 Oct 2004
– Consulting Service for Civil Works in Lam Dong Province	Oct 2005	11 Dec 2004
– Consulting Service for Civil Works in Kon Tum Province	Oct 2005	24 Mar 2006
Civil Works Contract		
Date of Award	1 Sep 2005	20 Mar 2005
Completion of Work	30 Jun 2008	31 Dec 2009
Equipment and Supplies		
Dates		
First Procurement	30 Jun 2006	10 Oct 2005
Last Procurement	30 Nov 2008	9 Dec 2009
Completion of Equipment Installation	31 Dec 2008	31 Mar 2010

5. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 1 January to 31 December 2004	Satisfactory	Satisfactory
From 1 January to 31 December 2005	Satisfactory	Satisfactory
From 1 January to 31 December 2006	Satisfactory	Satisfactory
From 1 January to 31 December 2007	Satisfactory	Satisfactory
From 1 January to 31 December 2008	Satisfactory	Satisfactory
From 1 January to 31 December 2009	Satisfactory	Satisfactory
From 1 January to 31 December 2010	Satisfactory	Satisfactory

D. Data on Asian Development Bank Missions

Name of Mission	Date	No. of Persons	No. of Person-Days	Specialization of Members
Fact-Finding	1–12 Sep 2003	5	55	a, l, m, n, o
Appraisal	13–23 Oct 2003	5	44	a, f, m, o, p
Review 1	12–16 Apr 2004	2	10	a, c
Loan Inception	20–30 Sep 2004	3	30	f, g, k
Review 2	9–23 Nov 2005	2	28	e, i
Review 3	6–17 Mar 2006	3	33	e, k, k
Review 4	6–20 Sep 2006	2	28	e, i
Review 5	5–14 Mar 2007	3	27	e, h, k
Review 6	7–21 Sep 2007	3	42	d, e, k
Review 7	22–27 Apr 2008	2	10	e, k
Review 8	7–15 Nov 2008	2	16	e, k
Review 9	17–22 Apr 2009	2	10	d, k
Review 10	30 Nov–2 Dec 2009	1	3	b
Project Completion Review	14–22 Mar 2011	2	5	c, q

a = principal project economist, b = principal health specialist, c = senior health specialist, d = senior project management specialist, e = health specialist, f = social protection specialist, g = social sector specialist, h = economist, i = social sector national officer, k = assistant project analyst, l = social protection economist, m = project specialist, n = young economist, o = young professional, p = counsel, q = staff consultant.



I. PROJECT DESCRIPTION

1. From the mid nineties, Viet Nam has made significant progress in increasing the health status of its population. The key goals of the government's Strategy for Protection and Care of People's Health 2001–2010 were achieved, e.g., life expectancy increased from 69.1 years to 72.8 years and the infant mortality rate (IMR) decreased from 36 to 20 per 1,000 live births. Significant progress was made toward attaining the Millennium Development Goal (MDG) of reducing under 5-year mortality from 58.0 in 1990 to 19.3 by 2015. These national indicators are however clouded by significant regional inequities in health status and utilization of health services. Although the IMR has declined in almost all disadvantaged regions (e.g., Northwest and Central Highlands), large gaps remain between these regions and more socioeconomically advantaged regions (e.g., Southeast and Red River Delta).¹

2. The Central Highlands region—comprising the provinces of Kon Tum, Dak Lak, Dak Nong, Gia Lai, and Lam Dong—has a population of more than 4 million and is one of the poorest regions in the country. Rates of gross poverty are far higher than the nationwide average of 13.4%, with Kon Tum having a poverty prevalence of nearly 27%. These provinces are characterized by large numbers of ethnic minorities living in scattered and remote communities.

3. The goal of the Health Care in the Central Highlands Project² was to improve the health status of the population by addressing key factors underpinning poor regional health service delivery. Its specific project outcomes were to (i) improve availability of, and access to, quality health services; (ii) improve affordability and utilization of health services; and (iii) strengthen health system capacity to address effectively health needs, especially for the poor and disadvantaged. The expected outputs were: (i) facilities and equipment upgraded; (ii) human resource developed; and (iii) financing and management of services. The project framework is in Appendix 1.

4. The project was to benefit 4.4 million people in the Central Highlands by improving quality and coverage of health services for the rural population, including the 1.0 million poorest and 1.5 million ethnic minorities. The expected impacts of the project included (i) the IMR reduced from 64 per 1,000 live births to 40 per 1,000 live births by 2008, (ii) the maternal mortality ratio (MMR) reduced to 110 per 100,000 live births, and (iii) prenatal care coverage increased from 70% to 90%. The health status of populations in Viet Nam and the project provinces is provided in Appendix 2, Table A2.1.

5. The project, estimated to cost \$30.6 million, was to be financed by (i) \$20 million from the Asian Development Bank (ADB) from its Special Funds resources, (ii) \$5.6 million from the Government of Sweden, and (iii) \$5 million provided by the Government of Viet Nam. It was to be implemented from 15 January 2004 to 30 June 2010. The Ministry of Health (MOH) was the executing agency. Implementation was partly decentralized through the use of five provincial project management units (PPMUs) and a central project management unit (CPMU) established for the project. The PPMUs implemented the project, while the CPMU provided technical, coordination, and logistical support. The new province of Dak Nong was split from Dak Lak province after project approval and was subsequently included in the project scope, though with limited support for training, civil works, and equipment provision. Expanded health insurance activities were added to the original design. Appendix 3 provides a summary of budgeted and actual costs.

¹ Ministry of Health. Hanoi. *Joint Annual Health Review 2010*. Hanoi.

² Asian Development Bank. 2003. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Health Care in the Central Highlands Project*. Manila.

II. EVALUATION OF DESIGN AND IMPLEMENTATION

A. Relevance of Design and Formulation

6. The project and subsequent implementation was consistent with the government's socioeconomic development plans³ for 2001–2005 and 2006–2010. Both plans had key social development targets of increasing average life expectancy, and reducing child and maternal mortality, in particular by paying greater attention to the needs of the poor and disadvantaged. The project's regional focus was in line with the emphasis on disadvantaged regions along with targeting grassroots health systems used more by the poor than provincial and other specialist hospitals. The project design and implementation addressed government efforts to decentralize the management and provision of health with a view to making entities more financially autonomous and encouraging them to take initiatives in determining staff numbers, compensation, and usage.

7. The project design was also consistent with ADB's country operational strategies,⁴ which were aligned with Viet Nam's socioeconomic development plans emphasizing poverty reduction by developing physical infrastructure and developing human resources. It was also in line with ADB's Health Policy,⁵ which had as guiding principles (i) focus on improving the health of the poor, women, children, and indigenous peoples; (ii) increase public investment in primary health care (PHC); and (iii) strengthen health sector managerial capacity. Project investments in (rural) civil works and equipment, and improvement of skills of health professionals to strengthen health services remained fully aligned with ADB's Strategy 2020⁶ and its complementary operational plan for health,⁷ in which the control of transmission and spread of communicable diseases, as well as strengthened sector governance are key objectives to meet MDG targets of reducing infant and maternal mortality. A change of scope following the midterm review allowed for an expansion of health insurance outputs to create greater access for the poor, which was consistent with the strategies mentioned above.

B. Project Outputs⁸

1. Facilities and Equipment Upgraded

8. Output 1 aimed to provide better access to health services by improving health facilities. Suboutputs were the (i) construction of physical facilities, and (ii) provision of medical and auxiliary equipment.

9. **Construction of physical facilities.** To improve curative services, 12 of the 13 proposed district health centers (DHCs) were provided with new facilities; and inpatient wards, technical blocks, solid waste management, and water and sanitation systems were upgraded. The solid waste management of two other DHCs was upgraded. During implementation, the planned construction of a DHC in Dak Nong province was financed by another source and resources transferred for the procurement of ambulances. One DHC in Kon Tum province was upgraded to a regional general hospital. The hospital is situated in an area with a high ethnic minority population.

³ Government of Viet Nam. 2006. *Socio-Economic Development Plan 2006–2010*. Ha Noi.

⁴ ADB. 2002. *Country Strategy and Program: Viet Nam, 2002–2006*. Manila; and ADB. 2007. *Country Strategy and Program Update: Viet Nam, 2007–2010*. Manila.

⁵ ADB. 1999. *Policy for the Health Sector*. Manila.

⁶ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

⁷ ADB. 2009. *An Operational Plan for Improving Health Access and Outcomes under Strategy 2020*. Manila.

⁸ The report and recommendation of the President (footnote 2) and the project framework, as well as the government documents refer to components. The use of the term components is no longer used in ADB project nomenclature and therefore reference is made to outputs; the wording of the project framework has been updated accordingly.

10. The project funded the construction of two provincial preventive health centers, three social disease centers, and four IEC centers; no explicit targets were set in the report and recommendation of the President (footnote 2) and the provinces set the priorities in consultation with MOH. The centers were established in the provincial capitals to better manage and monitor communicable diseases as well as foster demand for public health services. After the midterm review, the project supported additional medical waste disposal for Lam Dong province and for the secondary medical school in Gia Lai province. At completion, 11 solid and liquid medical waste disposal systems were installed and operating at selected DHCs.

11. **Secondary medical schools.** Two secondary medical schools were constructed—one in each of Gia Lai and Dak Lak provinces. The report and recommendation of the President notes that the Central Highlands region had 10% fewer health personnel per capita than the rest of Viet Nam. Combined with a population scattered across a large area, these resource constraints significantly affected service delivery. Teaching rooms, practice rooms, and a hostel were constructed. In 2009, the Dak Lak secondary medical school became a regional training institution. Teaching equipment was supplied to the schools.

12. Six sites required land acquisition and resettlement: 84 households (404 displaced people) required land acquisition, resettlement, and compensation. By 2006, 100% of the affected households had accepted compensation packages with no complaints or grievances.

13. The final cost for constructing and upgrading the DHCs, preventive health service facilities, and secondary medical schools was approximately 10% more than the planned cost, mainly due to overruns for the preventive facilities. Additional government financing and savings from equipment procurement were primarily used to cover these costs.

14. During the project completion review mission, hospital staff expressed satisfaction with the appropriateness of civil works designs and the quality of construction. However, construction quality was affected by the 2007 price escalation, the long wet season of the highlands region, and difficult geographic setting leading to problems with access to potable water and poor access roads. As a result, for example, the medical college in Gia Lai required additional local funding to complete construction. Details of the civil works are in Appendix 2, Table A2.2.

15. **Medical and auxiliary equipment.** To improve service delivery in the Central Highlands, the project financed procurement of equipment for the DHCs, preventive health centers, and secondary medical colleges. Following the government's own assessment, equipment was procured on the basis of replacing old and nonfunctioning equipment, upgrading technology for existing procedures, or providing new services.⁹ By value, laboratory equipment represented nearly one-quarter of total equipment costs. Project funds supported only a few high-value instruments, such as real-time fluorescent microscopes and maternal ultrasound machines.

16. Most equipment was delivered in the final 2 years of project implementation and is still in good working order. Hospital and provincial health department staff, who were met during the project completion review mission, were satisfied that equipment procured was appropriate and felt staff had the skills to operate it. The project provided selected staff with training on equipment operation and maintenance (O&M). The government has provided assurances that equipment will be maintained during and beyond the project through adequate increases in O&M budgets. Following the midterm review, project savings were used to procure an additional five packages of medical equipment, one package of office and communication equipment, and 25 ambulances. Since improving access to health services was within the project scope,

⁹ MOH. 2011. *Project Completion Report of the Health Care in the Central Highlands Project*. Ha Noi.

investment in vehicles is considered relevant. Details of medical and other procured equipment are in Appendix 4.

2. Human Resources Developed

17. In addition to establishing two secondary medical schools to increase the number of locally trained personnel, the project took a comprehensive approach to strengthening human resource capacity for health service delivery, from training first-line health workers and other staff, to upgrading specialization skills of medical doctors. Output 2 aimed to improve the quality of health services by upgrading staff knowledge and skills. Suboutputs were clinical training, PHC training, and financial and management training (the latter under output 3, discussed in paras. 20, 22).

18. **Clinical training.** The project organized three clinical training programs. Of the 408 district medical officers targeted for a 3-month attachment at a provincial hospital, only 288 participated. Participation was low as only a few staff were available; the training did not lead to a formal degree and required significant time away from the workplace. Government per diem rates were considered low. Of the 204 medical staff targeted at district and provincial health centers, 202 received post-basic training to enhance their knowledge and technical skills in internal medicine, emergency care, surgery, pediatrics, obstetrics, gynecology, infectious diseases, and public health. The training was held at medical education institutions with strong capacity and experience, including Hanoi Medical University, Hue University of Medicine and Pharmacy, Hanoi University of Public Health, and Central Highlands University. The training led to an additional specialization or qualification. Furthermore, conversion training for internal medicine degree holders was updated for six clinical specialties, to increase the spread of specializations. These conversion programs will be used for training in other medical educational institutions. Lastly, 148 of 209 nurses and other health personnel targeted received training in clinical skills at Central Highlands University.

19. **Primary health care training.** The project supported training on quality of care at secondary medical schools in each province for 1,579 of 1,720 targeted commune and district health workers, including 330 ethnic minority trainees and 902 female trainees. To standardize the curriculum and approach for this course, the project financed the development of provincial training modules and training of trainers. Of the 240 health workers targeted, 225 received additional training in IEC; trainees included 21 ethnic minority and 107 female students. Lastly the project provided three training courses on medical equipment for hospital and DHC staff; 65 staff attended. Those interviewed during the project completion review mission found the course to be of significant benefit.

20. **Financial and general management training.** The project provided training under the third output (para. 21) to strengthen financial and management capacity. One hundred selected provincial staff were offered courses in planning (98 attended) and financial management (90 attended); four similar courses were held for district staff where 205, rather than the original 100 targeted, participated. After only 168 of the targeted 480 staff attended a district hospital information management course, MOH in consultation with the provinces decided to cancel the district course, given the greater need for financial and planning training programs. Lastly, the CPMU organized two short courses for commune health management and medical waste management; 50 (target 44) and 117 (target 75) staff participated. For all training courses, provincial health departments, where necessary in consultation with the CPMU, selected the candidates on the basis of need, fair distribution, and eligibility. A summary of training outputs is in Appendix 2, Table A2.3.

3. Financing and Management of Services Strengthened

21. Output 3 aimed to strengthen the capacity of the health system. Suboutputs were (i) strengthened capacity in financial and general management of health services, and (ii) implementation of Decision 139 to provide financial support for the poor.¹⁰

22. Besides building human resource capacity building (para. 20), the project organized several international study tours in project management, plan development, project implementation, monitoring and evaluation (M&E), financial management, and health services provision to the poor and near poor. The government project completion report (PCR) notes that 20 staff (10 from the CPMU and 10 from the PPMUs) undertook study tours to the Republic of Korea and Malaysia. The objective was to gain an appreciation of health system organization and training systems for secondary medical colleges. The outcome of these tours in terms of changes to college curriculum or organization of services is not clear.

23. **Health Care Fund for the Poor.** The Swedish International Development Cooperation Agency (Sida) grant subcomponent of the project was used to support implementation of Decision 139, which provides financial support, i.e., insurance for health expenditure by the poor. Using the government's poverty assessment criteria, nearly 1.7 million in the Central Highlands were identified as potentially eligible for subsidized services after registration receiving a health card. They were eligible to receive the four types of financial support stipulated in Decision 139: (i) a fixed food allowance for beneficiaries who are inpatients, (ii) reimbursement of actual transport costs for referral and the deceased, (iii) reimbursement of actual direct medical costs for higher cost expenditures not covered by insurance, and (iv) support to provide mobile PHC outreach services to outlying communities. These were expenditures items budgeted for and controlled by the provincial health departments following national guidelines under Decision 139. Provincial governments felt that food allowances (42% of expenditures) and transport cost (23%) subsidies provided greatest benefit; these were also the two main items continued by three of the five provinces with other donor or government support after project close. Based on project experience, the government is currently revising its health finance law to ensure similar mandatory support to the rest of the country's poor with possible central subventions for poorer provinces, while richer provinces must finance health insurance for the poor from their own resources.

24. Project support was delayed until late 2005 when agreement was reached on the nature of items to be supported. Facility implementation of the HCFP was slow due to difficulty in determining which patients were eligible for support, confusion over which treatment costs were subject to reimbursement, and staff shortages hampering community outreach. As a result, most reimbursement took place in the latter half of the project. In the end, 500,000 people received food allowance support, 350,000 had transport costs reimbursed, 60,000 were assisted with their medical bills, and about a third of the poor population received direct PHC community services. A detailed breakdown is in Appendix 2, Table A2.4.

C. Project Costs

25. At appraisal, the project was estimated to cost \$30.6 million equivalent. ADB was to provide a loan of \$20 million from its Special Funds resources, representing 65% of the total cost and covering the major part of the capital expenditures. The Government of Sweden, through Sida, was to provide grant financing of \$5.6 million equivalent to support the HCFP. The Government of Viet Nam would provide counterpart contributions (in cash) of \$5 million.

26. At closing, \$27.94 million had been spent on project activities (Appendix 2, Table A2.5). This represents overall total actual expenditure of 91% of the projected amount. Expenditure for

¹⁰ Prime Minister's Decision 139/2002 provides eligible poor people with subsidies for health care and related costs through the establishment of the Health Care Fund for the Poor.

output 1 was 99% of the appraisal estimate and output 3 was 95%. Output 2 had the lowest actual expenditure compared with what was planned: 57%. The underspending was a result of lower-than-expected construction costs for secondary medical colleges, lower allowable cost norms for training, and a lower contribution from the government.¹¹

27. In terms of cost categories, expenditure on civil works and equipment was higher or similar to estimates at appraisal. Much of the expenditure on output 1 was for construction and equipment. Expenditure on operation and maintenance was only 2% of planned expenditure and largely financed by the government. Domestic transport costs were also lower than planned, utilizing 44% of the allocation. The low expenditure for the human resources output, where domestic transport is a significant cost, in part reflects this. Communication, research and M&E activities received little attention from the provinces and therefore had low expenditures. Appendix 3 provides expenditure accounts by financier at appraisal and project completion.

D. Disbursements

28. An imprest account and second generation imprest accounts were established in Viet Nam Bank for Agriculture and Rural Development (Agribank) at the central level and in each project provinces respectively in accordance with Decision No. 1223/QD-NHNN for disbursement of the ADB loan proceeds and Sida grant, along with an account at the State Treasury in Ha Noi for disbursements of counterpart funding. A total of \$18.5 million was disbursed under the loan, or 93% of the loan amount. Rates of disbursement varied for each cost category. Rates were over 100% for civil works, medical and other equipment, and consulting services. Only 7% of the research and M&E funds were disbursed.

29. Disbursement of loan proceeds followed ADB's loan disbursement handbook with expenditures valued at \$100,000 or less using the statement-of-expenditure procedure. Disbursement of the Sida grant followed similar procedures. The slow pace of disbursement was highlighted in many of the project's early project completion review missions. The large number of steps for procuring small value items using either ADB or government procedures was identified as a bottleneck and the government PCR recommends adoption of a simplified and timely procurement procedure.

30. HCFP implementation was delayed due to the low imprest ceilings of the central and second-generation accounts, and slow processing of withdrawal requests by ADB. These delays caused implementation problems at health centers due to the shortages of funds for project activities. At the latter stages of project implementation, these ceilings were increased. This issue was raised during the project completion review mission, along with the need to train staff in health centers in administrative and financial procedures to facilitate smoother flow of funds and accountability during implementation.

E. Project Schedule

31. The project was approved on 15 January 2004, became effective on 30 August 2004, and closed on 30 June 2010 as planned. At the midterm review in September 2007, a total of \$8.5 million in contracts had been awarded and \$5.4 million disbursed (26%). The review notes that the project started slowly in year 1 as implementation arrangements had to be established and staff contracted, while dealing at the same time with administration of another project.¹² However, all activities were on track by 2007 with the exception of the HCFP. At the time of the

¹¹ MOH was unable to give a year-by-year account for cost categories.

¹² ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Asian Development Fund Grant to the Socialist Republic of Viet Nam for the Preventive Health Services Support Project*. Manila (Loan 2180-VIE).

review, less than 20% of this grant had been disbursed. At project completion, over 90% of planned expenditure had occurred; major civil works and equipment were installed and in good working order. Similarly, most training activities were complete; and the HCFP support had been expanded during 2009 to meet expenditure targets.

F. Implementation Arrangements

32. MOH was the executing agency for the project. The PPMUs were the principal units for implementation; the CPMU provided central technical, coordination, and logistics support. The project steering committee (PSC) in MOH guided the work of the CPMU. The PSC was headed by a vice minister along with senior officials from key departments. The project director, appointed by the MOH minister, was responsible for coordinating project implementation (footnote 11). The project management organization is presented in Appendix 5.

33. The government PCR notes that the Department of Science and Training implemented the human resource development activities, and the activities with regards to strengthened financing and management of Decision 139 (the HCFP) by the Department of Planning and Finance, both in MOH. A training coordination group, established within the Department of Science and Training, was responsible for organizing central project training activities and M&E training courses conducted by the PPMUs. The training and coordination group was responsible for medical staff training and the HCFP support unit for supporting the implementation of HCFP activities; this was to mitigate the CPMU staff workload and ensure technical sustainability of these activities. The project's implementation arrangements were adequate and effective as they supported the different components as designed. The implementation schedule is presented in Appendix 6.

G. Conditions and Covenants

34. In addition to compliance with standard assurances, the government and MOH complied with the specific loan covenants as follows (Appendix 7).

35. **Implementation of Prime Minister's Decision 139.** During the first half of 2004, the provinces provided health cards to all people in the project area eligible for assistance under Decision 139. Within 1 year of loan effectiveness, MOH was to have established detailed guidelines for implementing Decision 139. Initially, a great deal of confusion surrounded the items to be supported under the HCFP output. The reimbursement of direct medical treatment was the most poorly understood. This lack of understanding delayed implementation. Planning was also limited, as allocation of funds between provinces did not reflect the number of people living in poverty in each province. But eventually the HCFP operated as foreseen in Decision 139 and, thus, the covenant was complied with.

36. **Ethnic minorities.** The government and MOH were obligated to implement the ethnic minority development plan, prepared according to ADB guidelines. The plan promoted increased access to health services received by ethnic minorities and ensured that ethnic minorities had equitable opportunities to participate in training activities. To promote access, the CPMU and five PPMUs developed IEC documents detailing the items supported under the HCFP component in the Ede, Banahr, Giarai, and K'Ho indigenous languages. Documents included panels, posters, audiocassettes, and leaflets, along with broadcasts in minority languages. Of the 2,486 candidates identified for the project's training courses, 551 were from ethnic minority groups, accounting for 22% of all trainees.

37. **Gender strategy.** The government was requested to follow the gender strategy prepared during appraisal. The CPMU carried out several training activities to increase the participation of female staff in training schemes, such as organizing a coaching program to help candidates better prepare for entry examinations. Priority entry was given to ethnic minority and

female candidates. Women comprised 52% of the 2,442 candidates for the coaching program, but only 23% of the 1,030 candidates for the management courses. New DHCs were designed to be gender friendly, with separate washrooms and consultation areas for women. Appendix 8 provides the project impacts on women and ethnic groups.

38. **HIV/AIDS.** MOH was to ensure that staff throughout the health system and construction workers involved in project civil works had awareness of HIV/AIDS prevention through training programs and IEC. MOH did not provide any HIV training indicators.

39. **Environment.** The project complied with ADB's Environment Policy (2002), as well as MOH policies and procedures on medical waste management. Waste management, an item of significant investment in the project, was expanded in scope during implementation. All facilities visited during the project completion review mission had approved and operating waste management systems. Training in medical waste management, including waste separation and equipment operation, was provided to 78 staff.

40. **Project monitoring and Evaluation.** Project monitoring was undertaken during the semi-annual review missions but the final evaluation of the project was not done as government and ADB were unable to hire a consultant in time, due to erroneous procurement procedures, nor had the baseline ever been established. Subsequently, data were collected and analysed during the PCR mission and write-up.

H. Consultant Recruitment and Procurement¹³

41. At appraisal, the project was expected to engage 32 person-months of international consulting services and 573 person-months of national consulting services. Most international inputs centered on public health and health finance and, to a lesser extent, civil works design and equipment procurement. At completion, 72% of the international inputs were utilized, although a 24-month delay in engaging an international public health specialist was noted during review missions.¹⁴ No international consulting inputs were used for civil works or equipment, as MOH did not consider them to be necessary. National consulting services comprised 119 person-months at the central health department and 454 person-months for provincial health departments. The consulting services inputs are outlined in Appendix 9.

42. National consulting inputs were reorganized. The national inputs for health financing were reallocated to monitoring, health economics, and planning inputs. Individual PPMUs engaged the national consultants for provincial services. Recruitment was hindered by low consultant fees and limited availability of technical specialists in each of the provinces. Consultants were recruited from consulting firms or as individuals using quality- and cost-based selection procurement methods, following ADB procurement guidelines. At project completion, the PMU had recruited and signed contracts with 21 national and two international individual consultants, as well as 12 firms to provide services in areas of audit, logistics, inspection and insurance of equipment, documentary film development, cost analysis, and evaluation of support items for the HCFP, financial management software development, and curriculum development. As per the government PCR, the services were delivered as requested and are rated *satisfactory*.

¹³ As per ADB's Guidelines on the Use of Consultants (April 2002) and ADB. 1990. *Handbook on Policies, Practices, and Procedures Relating to Procurement under ADB Loans*. Manila (revised February 1990), both stipulated as relevant project administration documents in the project administration memorandum.

¹⁴ The Viet Nam government is reluctant to use loan proceeds for engaging international and national consultants; hence, approval procedures are long and arduous, leading to loss of proposed candidates and readvertising. Secondly, government-set consultant fees under loan programs are unattractive for national consultants.

I. Performance of Consultants, Contractors, and Suppliers

43. In general, inputs of the national and international consultants met the standards outlined in the terms of reference; work was performed effectively making a significant contribution to the project's achievements. Reports on assigned tasks and deliverables were produced in a timely fashion. Documents produced were considered to be valuable references for implementation. Delays in engaging consultants, and asynchronous recruitment, led to limited interaction between national and international specialists adversely affecting implementation. The provinces implemented individual civil works packages following agreed procurement guidelines but under supervision of construction inspection firms and civil works consultants of the CPMU and PPMUs. The quality of supervision was considered to be satisfactory. However, the CPMU noted that limited technical capacity of provincial contractors led to some delays in construction progress. The performance of the consultants is rated satisfactory.

J. Performance of the Borrower and the Executing Agency

44. Within 3 months of loan effectiveness, a PSC¹⁵ was established. The PSC was chaired by an MOH vice minister and included representatives of key departments and Sida. The project director was the PSC secretary. Reporting from the PPMUs and CPMU was generally found to be satisfactory; reports on project implementation progress, issues, and plans were submitted quarterly. The initial combined project management unit (with the Preventive Health System Project) appeared to overburden the CPMU resulting in slow implementation before separate units were formed. Implementation progress, particularly of the HCFP component, improved following the appointment of a project deputy director in 2007. Many of the CPMU staff had no prior ADB experience so had to familiarize themselves with ADB procedures and processes. Provincial staff consulted during the project completion review mission expressed satisfaction with the leadership and support provided by the CPMU. The CPMU recruited an auditing firm to conduct annual audits of all the project activities at the CPMU and five PPMUs. The auditing report was submitted to ADB and MOH on time according to ADB and government regulations. MOH performance is rated *satisfactory*.

K. Performance of the Asian Development Bank

45. ADB fielded 10 missions for inception and loan review, and 1 midterm review. The project team leader outposted to Viet Nam Resident Mission, along with Viet Nam Resident Mission staff, provided regular support throughout project implementation. The government appreciated ADB's flexibility in accommodating changes in scope and budget allocations, such as changes in the number of project provinces and the reallocation for additional civil works and waste management systems. Overall, ADB performance is rated *satisfactory*.

III. EVALUATION OF PERFORMANCE

A. Relevance

46. The project is rated *relevant* as it was in line with government and ADB policy during design and remained relevant at project closing. The 2010 Joint¹⁶ Annual Review of the Health Sector highlighted the government's focus in allocating resources for health to disadvantaged, isolated, and remote regions. Moreover, the focus on preventive medicine and PHC was emphasized. Resolution No. 46-NQ/TW notes "The State needs to invest strongly and create a major step forward to upgrade health facilities, and in that task to prioritize consolidating and refining the grassroots health network, preventive medicine, hospitals at the provincial and

¹⁵ Decision No. 4115/QD-BYT, 18 November 2004.

¹⁶ An annual health sector review undertaken by Government and Development partners; undertake yearly since 2007.

district levels, and regional health centres, especially in the Central Highlands, Northern mountains, Central region and the Mekong Delta.”¹⁷ Lastly the focus on providing access for the poor was in line with the Prime Minister’s decree 139 establishing the HCFP. ADB’s Policy for the Health Sector (footnote 6) had a PHC focus, while Strategy 2020 and the operational plan highlighted that controlling communicable diseases, tackling MDG goals, promoting good governance, and ensuring effective public sector management are key objectives of ADB operations. The project’s objectives also reflect ADB’s country and sector strategy for Viet Nam, which emphasized inclusive economic growth based on sustainable development.

47. The project identified the poor, ethnic minorities, women, and children as key beneficiaries. All provinces had large populations of ethnic minorities and gross poverty rates far above national averages. Based on the United Nations Development Programme human development index ratings, the project provinces were all in the bottom half of provinces ranked by the index. The ethnic minority development plan and gender plan ensured these beneficiaries were the focus of project activities. The geographic area for implementation was far more compact than previous projects, such as the Rural Health Project. The more limited implementation area reduced the administrative burden and facilitated more regular monitoring of project progress.

48. The combined attention to increasing the curative and preventive health services network was in line with the PHC approach, with the latter contributing to better access for the poor and less burden for the curative system. Also, in an area where few human resources are available for health, work to expand local training capacity and upgrade existing staff is highly relevant.

49. The allocation of civil works and HCFP resources is compared with the proportion of total population, poor, infant mortality, and ethnic minorities in each of the five provinces in Appendix 2, Table A2.6. Gia Lai and Dak Lak provinces have more poor and larger health needs (using infant mortality as a proxy), and received more resources for civil works and HCFP funding. This allocation is not systematic across all provinces; e.g., Lam Dong with twice as many poor as Dak Nong received a similar HCFP allocation. Besides the different amounts allocated for the HCFP, allocations for the other outputs were as per provincial requests, their absorption and technical capacity, and thus in terms of performance did not significantly vary between provinces.¹⁸

B. Effectiveness in Achieving Outcome

50. The project is rated *effective* in achieving the expected outcomes of improving access to health services, increasing the affordability¹⁹ and utilization of services, and strengthening health systems to address the health needs of the population. Results of the Viet Nam household living standard survey in 2004, 2006, and 2008 were compared for the project provinces and for a set of control provinces.²⁰ Control provinces had similar United Nations

¹⁷ Resolution No. 18/QH12 states “Reserve at least 30% of the health budget for preventive medicine.”

¹⁸ MOH. 2011. *Project Completion Report of the Health Care in the Central Highlands Project* Ha Noi; and discussions with the PPMUs during the PCR Mission.

¹⁹ It is generally assumed and accepted that using public health facilities is less expensive, i.e., less out-of-pocket payment, than using private facilities.

²⁰ The difference in health status indicators and health-seeking behaviour is compared for 2004, 2006, and 2008 between project and control provinces. The approach follows that used in the Health Policy Institute’s evaluation of the Rural Health Project. Control provinces are nonproject provinces with MDG indexes within the range of the project provinces (i.e., from 0.2920 for Gia Lai to 0.4915 for Lam Dong), thus eliminating any provinces that are much more disadvantaged or much more advantaged than the set of project provinces. MDG indexes for each province are found in United Nations in Viet Nam. 2003. *Closing the Millennium Gaps: Millennium Development Goals*. Ha Noi. Changes observed in health-seeking behaviour occurring in project provinces during 2004–2008 that are different from changes in control provinces are considered as project impact. Household sample survey

Development Programme human development index scores to those of the project provinces just prior to project implementation. Mortality in children was reduced, and women and poorer people (quintiles 4 and 5) through, for example their use of outpatient services, are making greater use of government facilities. The total population's use of inpatient services at government hospitals increased more in project provinces. The number suffering from illness,²¹ measured over the previous 4 weeks, decreased to a greater extent in project provinces.

51. DHCs were constructed and equipped, and funds were made available to the poor to promote service utilization. The poor make greater use of the DHC. Equipment, civil works, and funds allocated for the HCFP account for more than 60% of expenditure. As a result, health facility utilization by this target group in comparison with the less poor increased over the project lifetime.

52. The proportion seeking outpatient treatment at government hospitals,²² rather than commune health stations, regional polyclinics, and the private sector, can be analyzed from survey data for wealth quintiles 4 and 5, women, and ethnic minorities (Appendix 2, Tables A2.7 and A2.8). The proportion of the total population using outpatient care increased by 20% in project and control provinces for the total population. However, when lower-income groups are considered, a much high proportional increase is evident. In the case of quintile 4, government hospital outpatient services increased by 37% compared with 22% for nonproject provinces, most likely as a result of the subsidized services provision.

53. Despite the IEC efforts, the proportion of the non-Kinh (minority) population using government hospitals for outpatient and inpatient services remained lower than for the overall population. But for outpatient services, the proportion decreased as more used commune health stations and regional polyclinics during 2004–2008. Increased use of commune and polyclinic centers by quintile 5 patients seeking inpatient services resulted in the –8% change from 2004 to 2008 for this indicator.²³

54. The building and equipping of laboratories for preventive health and the building of IEC and social disease centers improved preventive health service capacity in the project area. Village health worker training, capacity strengthening for IEC, and the IEC campaigns are considered successful. As a result of the planning and management information workshops, much improved annual health and hospital operating plans were developed that, in turn, led to better resource generation and allocation, as witnessed by MOH's Department of Planning and Finance while reviewing the annual provincial plans.

C. Efficiency in Achieving Outcome and Outputs

55. The project is rated *efficient* in achieving its outcomes and outputs as demonstrated by (i) high disbursement to achieve the effective outcomes; and (ii) despite disbursement delays and weak planning capacity, especially in the initial stages, the project completed all activities within the foreseen implementation period, achieving all quantitative and qualitative targets.²⁴

data from three nationally representative surveys conducted by the General Statistics Office: the household living standards survey 2006, household living standards survey 2008 to compare with baseline data of the household living standards survey 2004.

²¹ As a proxy for measuring increased access and availability of preventive services.

²² DHCs can be regarded as first level government hospitals as they provide in-patient services.

²³ Household sample survey data from three nationally representative surveys conducted by the General Statistics Office: the household living standards surveys for 2006 and 2008 to compare with baseline data of the 2004 household living standards survey.

²⁴ Efficiency measure outputs relative to inputs and in economic terms is a metric for value for money. Typically, efficiency is assessed using cost-effectiveness measures, or qualitative description of the efficiency of process. For example, the efficiency with which executing and implementing agencies managed the project, and the efficiency of ADB support, supervision, and administration can be considered.

56. **Cost-effectiveness analysis.** If a small decrease in the burden of disease in the project area (measured in number of disability-adjusted life years [DALYs]²⁵) can be attributed to the project, then the investment can be considered cost-effective. At appraisal, about 280 DALYs per 1,000 persons were estimated to be lost in the Central Highlands compared with the national average of 180 per 1,000.²⁶ The higher rate reflects the substantial burden of disease in this area due to low health status of the large poor population. The project helped reduce this burden through investment in health infrastructure, quality improvement of health staff, and provision of funds for the poor to increase access to health services (measured by illness in the last month in the household living standards survey) and decreased IMR. The decrease in illness was 10% higher in project provinces when compared with non-project provinces.

57. If only a 5% decrease in DALYs²⁷ is attributed to the project, then a total of 14 DALYs per 1,000 people have been averted annually. Using cost-effectiveness analysis, these benefits are compared with the investment and ongoing project costs (Appendix 10). The cost per DALY averted is estimated to be \$43. The World Health Organization considers a health intervention to be cost-effective if it averts a DALY at a cost below three times the per-capita gross income where the investment is being made. In 2008, per capita gross income in Viet Nam was about \$900 nationally and \$600 in the Central Highlands.^{28, 29} With a DALY of only \$43, the project is estimated to be highly cost-effective.

58. Initial project implementation was not as efficient. A number of factors contributed to slow implementation and, thus, delays in disbursement. Initially, the CPMU was overburdened with the administration of two major projects. The liquidation of advances was slow due to limited administrative capacity, particularly at lower levels of the health system. Recruitment of national consultants for the HCFP component was delayed due to limited expertise and planning capacity available in the provinces, low salaries, and possibly limited perceived benefits of these consulting inputs by counterparts. Additionally, the procedures for procurement were found to be lengthy and overly time consuming.³⁰ Improvements in planning of health services, targeted project activities, targeting of funds for beneficiary populations, and a greater emphasis on outcome monitoring could have led to greater allocative efficiency. But as the project progressed, the pace of implementation accelerated, so targets were achieved and reports were received on time. Considering the highly cost-effective nature of the project activities, the project is rated *efficient* overall.

D. Preliminary Assessment of Sustainability

59. The project is rated *partly sustainable*. Investment in civil works and equipment requires ongoing recurrent budget support in terms of maintenance and additional staff to match increases in curative and preventive capacity. Existing vacancies have been filled with trained staff. More than \$16 million has been invested in these items as part of the project. If an estimate³¹ of 5% per annum of investment value is required for maintenance, then an annual maintenance requirement of \$0.8 million is required to support ongoing operation of the project investment.

²⁵ DALY is an indicator of the time lived with a disability and the time lost due to premature mortality.

²⁶ Burden of disease is based on *Viet Nam National Health Survey 2001–2002*. MOH, Hanoi.

²⁷ Using cost-effectiveness analysis methodology from World Bank. 1993. *Investing in Health*. Washington, D.C.; also referred to in the World Health Organization Commission on Macro-Economics and Health.

²⁸ Government of Viet Nam. 2010. *2010 Vietnamese Statistical Yearbook*. General Statistics Office, Ha Noi.

²⁹ ADB. 2010. *Key Indicators for Asia and the Pacific 2010*. Manila (derived from World Development Indicators).

³⁰ The Government's PCR notes a 13-step procurement process for items such as provincial office equipment.

³¹ World Health Organization. 1994. *International Standard for Annual Maintenance*. Geneva.

60. Analysis of provincial health accounts indicates that less than 5%³² of local budget is used for maintenance. Using 3% as an estimate of local budget available for maintenance, \$0.2 million per annum in Dak Nong and \$0.5 million in Dak Lak is available from local budgets to maintain the provincial health system. When the annual requirement of \$0.8 million per year to maintain the ADB project investment is considered, local budgets are only just sufficient to meet project requirements alone (Appendix 2, Table A2.9). The latter requires 47%–83% of all local budget maintenance funds. Although other sources of finance, such as user fees, could be used to support recurrent expenditure requirements, they may not necessarily be used for that purpose, as more pressing needs may include salary payments for contract workers. Therefore, the project is rated *partly sustainable*.

61. The sustainability of HCFP activities varies between provinces. The provinces of Gia Lai and Kon Tum are using funds from a European Union project to support the food and transport allowance for inpatient treatment services, but this project does not cover all districts in the provinces. The Dak Lak provincial authority allocated some of its own resources for supporting the food and transportation allowance. In Lam Dong province, limited support is ongoing for a charity kitchen and treatment subsidies.

E. Impact

62. Although only recently completed, the project has achieved some of the expected impact.³³ From 2006 onward, project provinces have seen substantially greater reductions in burden of disease as measured by the prevalence of illness in the 4 weeks preceding the Viet Nam household living standards survey. Infant mortality in the project area declined from 60 to 41 per 1,000 population.³⁴ The reduction in burden of disease is also evident in the number of days lost to illness in project and nonproject provinces during 2004, 2006, and 2008 (Appendix 2, Table A2.10). The number of days lost to disease decreased more than 20% for the total population and poorer quintiles, and to a greater extent in project provinces when compared with nonproject provinces. However, while the number of days lost by ethnic minorities decreased, this did not occur to the same extent as in nonproject provinces.

63. Apart from the increase in access to preventive and primary health services, the biggest impact of the project is that other development partners and the government have adopted the concept of the HCFP. The government has changed its health care finance and insurance laws to ensure that poor people continue to be subsidized starting in 2011.

IV. OVERALL ASSESSMENT AND RECOMMENDATIONS

A. Overall Assessment

64. The project is rated *successful* (Appendix 11). Curative health facilities, along with a range of preventive health units were successfully built and equipped across the five provinces of the Central Highlands. More staff became available to work in DHCs and existing health staff received extensive training to improve their technical skills. Health utilization statistics illustrate that the use of government hospitals has increased and the burden of disease—as measured

³² Conducted as part of medium-term expenditure planning in the south coast project preparatory technical assistance.

³³ Impact relates to poverty, institutional, economic, environmental, social, and other impacts (positive and negative, whether intended or not) generated during project (program) implementation.

³⁴ Department of Finance and Planning, Ministry of Health. 2010. *Health Statistics Yearbook 2009*. Hanoi. MMR was not measured as a final survey was not done and MMR only reflects a retrospective figure. The United Nations agencies in Viet Nam (United Nations Children's Fund [UNICEF]. 2010. *An Analysis of Children in Viet Nam*. Hanoi.) and the government (Joint Annual Health Review, 2010) estimate that the MMR for the Central Highlands, with a high ethnic minority population in rural areas, is still 2–3 times as high as for the delta area with nonethnic minority population in primarily urban areas.

by days lost to illness—and infant mortality has decreased. Decreases in the days lost to illness were greatest for poorer families in the project area. Despite delays, 92% of the project funds were utilized.

B. Lessons

65. **Selection of provinces.** The selection of adjoining provinces in the Central Highlands had several benefits. First, these provinces have a large number of poor ethnic minorities and other residents with low health status and limited access to health services. As such, these areas align with both the government's policy of supporting disadvantaged groups and ADB's overarching objectives of tackling poverty. Ethnic minorities needed continuous targeting as their health status and sociocultural adverse health behaviour warranted project interventions. Second, the selection of adjoining provinces reduced travel times and administrative overheads for project monitoring and supervision. Third, selection of these provinces avoided overlap with other major development partners in the country. On the other hand, the lack of allocative criteria led to unequitable resource distribution among the provinces, though no significant variation in performance was found, as provinces used funding according to their internal technical and absorptive capacity.

66. **Continued focus on training.** The Joint Annual Health Review, 2010 notes that a shortage of human resources continues in several fields, including preventive medicine, public health, pediatrics, infectious diseases, mental illness, forensics, pathology, tuberculosis and leprosy, food safety and hygiene inspection, medical technology, engineers specialized in medical equipment, health statistics, and hospital management. The provincial health departments identified postgraduate training in health specializations as a major project benefit, leading to more available district staff and specializations. However, lack of staff in the project areas continues to be a major constraint for service delivery and requires future support. MOH has developed policies and has been actively supporting methods to develop training in disadvantaged regions, including direct recruitment of students for training without entrance exams³⁵ using specific contracts between health institutions and training facilities.

67. **Administrative delays.** The considerable delays in implementation were due to complicated procurement regulations of both ADB and the government. These delays and price inflation resulted in the quality of civil works being compromised in some locations and some facilities deviating from the design. Delays in equipment procurement led to the purchase of inappropriate and out-dated equipment. Limited district administrative capacity resulted in delays in imprest accounts being replenished, which constrained progress. Current government per diem allowances for training courses are very low; this limited participation. Delays in procuring consultants, especially for the HCFP, delayed disbursement.

68. **Recurrent budgets.** Investment in civil works and equipment has recurrent budget implications. Monitoring of whether provinces are allocating greater resources to recurrent budgets is difficult as financial tracking is complicated in a devolved financial management system. User fees may help support the ongoing expenditure support for buildings and equipment in the curative sector, but the preventive system has limited capacity to mobilize resources outside of the state budget. Given these constraints, future projects must have investment allocations that reflect the limited capacity for increasing recurrent expenditure, and use appropriate technology that has manageable cost implications.

69. **Monitoring and Evaluation.** The CPMU and PPMUs have monitored financial flows and activity progress as part of routine quarterly reporting. Limited attention was paid to project

³⁵ Decision No. 1544/2007/QD-TTG and Decree 134/2006/ND-CP.

outcomes in the project framework (Appendix 1); outcomes were not changed during the project. Similarly, measurement of the outcomes of the training programs appears to have been limited. Given ADB's results-based approach to project management, both MOH and ADB should have given a greater focus to M&E.

C. Recommendations

1. Project Related

70. Future projects should adopt geographic targeting or a clustering of provinces for implementation. The health status of communities in these areas, along with the prevalence of poverty and ethnic minorities, should be considered for geographic, cultural-behavioural, and health status targeting. Geographic clustering assists with project administration and supervision, and avoids duplication with other development partners.

71. Focusing on PHC, which includes investing in lower level health facilities and the preventive health network, is a priority for ADB and the government. This priority should be clearly articulated to health sector leaders, provincial health departments, and planners formulating designs for any future ADB support in Viet Nam.

72. The basis for resource allocation between provinces needs to be transparent in a project. Allocation may be based on factors such as poverty prevalence, mortality, population, or a combination of these, and other factors using simple weighted criteria.

73. Improved health sector planning is required to ensure project resources are targeted to localities and facilities that generate tangible results. For example, planners should provide population densities in proposed hospital catchments, or evidence that preventive facilities will lead to a reduction in (curative) health service utilization by the population.

74. Assurances for counterpart funding should be extended to encompass enabling factors—such as potable water, electricity, or road infrastructure being provided by local authorities to ensure that project investments can be built and can function properly upon completion.

75. Provinces should have long-term training plans for health workers to ensure qualified health staff are present in sufficient numbers for service delivery at all levels. Numbers requiring technical specialization training, other postgraduate training, or (health and other) management training should be clearly specified in these plans.

76. Educational background and sociocultural barriers of ethnic minorities need to be addressed as part of their participation in project activities.

77. M&E should be throughout project implementation. Data relating to the measurement of project outcomes—such as improvements in staff capacity as a result of training, or utilization of project-developed facilities—should be monitored regularly and available for final evaluation.

2. General

78. The complexity and timeliness of ADB and government procurement procedures need to be reviewed to facilitate more timely and efficient implementation, avoiding delays.

PROJECT FRAMEWORK

Design Summary	Performance Indicators/Targets	Assumptions and Risks	Achievements
<p>Goal</p> <p>Improve the health status of people, especially the poor and ethnic minorities, in the Central Highland provinces</p>	<p>IMR reduced by 30% (from 64 to 40 per 1,000 live births). MMR reduced from 170 to 110. Decrease burden of disease by 15% of current DALYs.</p>	<p>The current pace of economic development and poverty reduction will continue The Government continues to make health a high priority Level of external funding for health is maintained Early achievements in reducing communicable diseases do not dilute the priority for the programs</p>	<p>Reduced infant mortality rate to 41.6 in 2009 which is marginally above the target of 40 per 1000 live births. Under five mortality decreased from 43.7 to 41.6 in 2009. Illness reduced by 10% (VHLSS) in project provinces.</p>
<p>Purpose</p> <p>(i) Improve availability of, and access to, quality health services in four central highland provinces, especially for the poor and disadvantaged</p> <p>(ii) Improve the affordability and utilization of health services, especially by the poor</p> <p>(iii) Strengthen the capacity of the health system to effectively address the health needs of the people in the four provinces</p>	<p>All DHCs will adhere to the minimum quality standards 80% of deliveries attended by trained health worker (an increase from current 60%). Increase the utilization rates of DHCs by the poorest quintile by 100%.</p> <p>Reduce private out-of-pocket expenditure by the poorest quintile by 50%.</p> <p>Capacity to train health staff in the four provinces strengthened.</p> <p>DHCs capable of providing effective care for six identified conditions.</p> <p>Management capacity strengthened to plan and supervise care.</p>	<p>DHCs and inter-commune polyclinics not covered by the Project will be supported through other resources Referral system will be further strengthened Provincial hospitals will receive adequate support from other sources The Government and other international agencies will continue to pursue strong pro-poor health financing policies and investments Prevention activities will receive adequate policy support Regional approaches to training in the four provinces will be adopted</p>	<p>No specific data available. Over 90% of the deliveries were carried out by a trained health workers. Proportion of the poor seeking outpatient care in government hospitals increased by 20-37% (higher than non-project provinces). Proportion of quintile 4 population seeking inpatient care in government hospital increased by 5%. Quintile 5 population using health insurance for treatment increased by 158%. Two medical schools established; one with regional accreditation DHCs had 2 or more basic specializations available, covering the six conditions as identified. Annual operational plans available for provinces and districts (source MoH/DPF).</p>

Outcomes

Design Summary	Performance Indicators/Targets	Assumptions and Risks	Achievements
Improved quality of health services at DHCs through improved facilities, equipment, and human resources development	The district health facilities meet the quality standards specified by MOH.	Project investments for civil works, equipment, and training will be well coordinated	12 District Health Centers (DHCs): Dak Lak (4), Dak Nong (1), Gia Lai (5), Lam Dong (2) completed to MoH standard.
Fully financed and efficiently managed HCFFP	All poor people in the four provinces receive health cards.	Government contribution will take into account the likely increase in the utilization of health	Eligible and registered poor people received HCFFP funding in target regions.
Strong capacity to design and implement culturally compatible IEC programs	IEC centers meet quality standards specified by MOH.	Ethnic minorities and local communities will be involved in designing IEC programs.	4 IEC Centers: Dak Lak (1), Dak Nong (1), Gia Lai (1), Kon Tum (1), completed to MoH standards.
Strong training capacity to the health system at provincial level through strengthened secondary medical schools	The SMS meet quality standards specified by MOH.	Good trainers with knowledge of local customs can be engaged and retained in the schools.	Medical schools constructed in Gia Lai and Dak Lak provinces. Dak Lak Secondary Medical School has attained regional accreditation.
Effective preventive health system through upgraded provincial preventive health centers and training	The preventive centers meet the quality standards specified by MOH.	Regional approach to disease surveillance and prevention will be taken.	2 Preventive Health Centers (PHCs): Dak Nong (1), Lam Dong (1) completed to MoH standards.

Activities

Design Summary	Performance Indicators/Targets	Assumptions and Risks	Achievements
Output 1:¹ Upgraded Facilities and Equipment			
Upgrade 15 DHCs	The selected health facilities constructed within the specified time and budget.	Approval and procurement procedures will not delay implementation	12 District Health Centers upgraded. Price inflation affected construction quality in some instances.
Equipment for 16 DHCs and Dak Lak provincial hospital	Equipment procured and installed within the specified schedule and budget.	Approval and procurement procedures will not delay implementation	Equipment procured and delivered. Currently equipment is in good working order.
Strengthen IEC centers in four provinces	Centers constructed and equipment provided within the specified schedule and budget.	Approval process and procurement procedures will not delay implementation	IEC centres constructed and providing IEC (outreach) campaigns.

¹ Not in original DMF; added during PCR to be in line with current DMF descriptions.

Output 2: Human Resources Developed			
Train doctors, nurses and health workers	612 doctors, 209 nurses, about 2,000 health workers trained.	Appropriate personnel will be selected and released for training	<p>90% of training plan achieved: 202 doctors received specialist training, 288 doctors received refresher training, 148 staff, received paramedical training, 1579 received. PHC training and 225 received IEC training; Major shortfall in 3 month placement due to staff availability.</p> <p>Women's participation in training was high. Priority was given to women and ethnic minority people. Provinces exceeded the gender target of 50% with a total of 52% participation by women in training as follows: 77% (EM 22%) of paramedical (mostly nursing) trainees; 57% (EM 21%) of primary health care trainees; 48% (EM 9%) of IEC trainees; 29% (EM 282%) of postgraduate doctors trained; and 30% (EM 34%) of doctors in refresher training.</p> <p>Women's participation in management training modules varied. Women made up 32% (EM 3%) of provincial staff trained in planning and management, 38% (100%) of those trained in financial management, 40% female (EM 4%) district staff trained in planning and financial management, 42% females (EM 4%) were trained in district hospital management and 32% ((EM 8%) of commune health workers trained as trainers were women, while 52% (EM 15%)</p>

			commune health workers received health management training.
Upgrade all preventive health centers (including centers for social diseases)	Centers constructed and equipment provided within the specified schedule and budget.	Approval and procurement procedures will not delay implementation	PHCs upgraded and social disease centres built. The function of one social disease centre has been changed.
Strengthen the secondary medical schools in four provinces	Centers constructed and equipment provided within the specified schedule and budget.	Approval process and procurement procedures will not delay implementation	Two SMS constructed. The Gia Lia training school was affected by inflation and not entirely built to plan.
Output 3: Financing and management of services strengthened			
Support the health care fund for the poor in all four provinces	Effective monitoring and evaluation system in place for PM's Decision 139.	Government contributions to the HCFP will continue	Monitoring and evaluation has not been as effective due to late start and administration capacity; but figures are available though not complete.
Strengthen management and supervision capacity	400 district staff and 200 provincial staff trained.	Provincial authorities support the need for management development initiatives	Management training plan amended and a revised plan carried out. A total of 1179 staff received management training of which 238 were provincial staff and 451 district staff.

DALY = disability-adjusted life year; DHC = district health center; HCFP = Health Care Fund for the Poor; IEC = information, education, and communication; IMR = infant mortality rate; MOH = Ministry of Health, MMR = maternal mortality rate; SMS = secondary medical school. Prime Minister's Decision No. 139/2002/QD-TTg (15 October 2002) on Health Care Fund for the Poor.

SELECTED BACKGROUND TABLES

Table A2.1: Health Status in Viet Nam and the Central Highland¹

	Population 2010 (thousands)	Ethnic Minority (2008)	Gross Poverty (2008)	CBR per 1000 (2009)	IMR per 1000 (2009)
Kon Tum	443.4	54%	26.7%	28.5	38.2
Gia Lia	1300.9	45%	23.7%	23.9	25.8
Dak Lak	1754.4	33%	21.3%	19.7	22.1
Dak Nong	510.6	33%	23.3%	22.8	26.8
Lam Dong	1204.9	24%	15.8%	20.3	14.6
Viet Nam			13.4%	17.6	16.0

CBR: Child Birth Rate, IMR: Infant Mortality Rate

Table A2.2: Civil Works Approved and Budget of Completed Construction (\$'000)

	Approved	Final	%
Dak Lak			
IEC Centre	41	50	122%
Social Diseases Centre	161	127	79%
Secondary Medical School	482	427	89%
District Health Centres	1,068	1,232	115%
Dak Nong Province			
District Health Centre	267	105	39%
Preventive Health Centre	565	810	143%
IEC Centre	230	151	66%
Gia Lai Province			
IEC Centre	41	34	83%
Secondary Medical School	482	442	92%
District Health Centres	1,322	1,206	91%
Kon Tum Province			
IEC Centre	41	34	83%
Social Diseases Centre	161	132	82%
Regional Hospital	506	451	89%
District Health Centres	232	135	58%
Lam Dong Province			
Preventive Health Centre	161	171	106%
Social Diseases Centre	321	290	90%
District Health Centres	941	948	101%
Total	7,022	6,744	96%

Source: MoH Project Completion Report²

¹ The poor as defined according to current standards of the Minister of Labour, Invalids and Social Affairs (MOLISA); Residents of communes with very difficult socio-economic circumstance belonging to the Programme 135 of the Government; Ethnic minorities in the Central Highlands provinces (as defined by Decision N° 168/2001/QĐ-TTg).

² Building works differ from civil works estimates in Appendix 3 due to omission of items such as waste systems on existing buildings.

Table A2.3: Summary of Training Activities

Course	Description	Target	Achieved	Percent
Quality of Care				
2 year postgraduate training for medical doctors at the district level	postgraduate training courses in selected specialization areas	204	202	99%
3 month specialist attachment for medical doctors at the district level	Short courses on specialized medical areas	408	288	71%
3 month specialist attachment for nurses and other health professionals at the district level	Short courses on specialized medical areas	209	192	92%
5 day training courses on quality of care	Short refresher course for primary health workers	1720	1579	92%
5 day training courses on health promotion and IEC skills	Short course for primary health workers on behavior change communication	240	225	94%
Equipment Course for hospital staff	Short course on equipment operation and maintenance		65	
Management and Information				
5 day provincial management workshop	Short course to improve planning systems and management practices	100	98	98%
5 day financial management workshop	Short course to improve financial management practices at the provincial level	100	205	205%
5 day training courses on district hospital operations and information management	Short course to improve management at district hospitals	480	168	35%
5 day training courses on health information at the district level ³	Improved quality of health statistics and management	250	0	0%
5 day district management workshop	Short course to improve planning systems and management practices		205	
Commune level management training	Short course to improve district management staff to support commune health activities	44	50	114%
Waste management training	Short course to improve hospital waste management practices	75	78	104%

³ Some training activities were removed following consultation with provinces during implementation. Details are outlined in Document No. 105/BQLDA-YTTN, May 2nd 2008.

Table A2.4: Health Care for the Poor Expenditure by Area of Financial Support⁴

Item	2005	2006	2007	2008	2009	Total
Food Allowance						
Patients	5,238	68,348	114,704	153,756	184,228	526,274
Value of Support (\$US)	8,600	142,044	361,010	541,133	905,505	1,958,291
Support per Patient (\$US)	2	2	3	4	5	4
Transport Allowance						
Patients	270	2,910	65,640	108,854	136,833	314,507
Value of Support (\$US)	628	10,825	131,298	285,152	631,559	1,059,462
Support per Patient (\$US)	2	4	2	3	5	3
Medical Allowance						
Patients	4	214	370	2,309	3,436	6,333
Value of Support (\$US)	722	12,828	20,334	118,604	168,834	321,322
Support per Patient (\$US)	180	60	55	51	49	51
Mobile Outreach						
Patients	1,050	65,387	122,988	137,365	213,891	540,681
Value of Support (\$US)	9,399	111,346	322,952	327,194	414,837	1,185,727
Support per Patient (\$US)	9	2	3	2	2	2
Stationary (\$US)	-	5,589	17,500	21,498	31,031	75,617
Staff Allowance (\$US)				17,759	54,213	71,972
Total (\$US)	19,348	282,631	853,093	1,311,339	2,205,978	4,672,390

⁴ From MoH PCR.

Table A2.5: Summary of Project Cost Estimate at Appraisal and Actual Expenditure (\$ million)⁵

Component	Appraisal Estimate	Actual Expenditure	% Increase
I. Base Cost			
1. Upgrading Facilities and Equipment	14.87	14.68	99%
2. Human Resource Development	4.40	2.52	57%
3. Management and Financing	7.94	8.77	110%
Subtotal I	27.21	25.97	95%
II. Tax, Duties and Land			
Subtotal II	1.37	1.64	120%
III. Contingencies			
A. Physical	0.78	-	-
B. Price	0.71	-	-
Subtotal III	1.49	-	-
IV. Interest on Loan			
Subtotal IV	0.51	0.37	73%
Total	30.58	27.98	91%

Table A2.6: Fund Allocations between Provinces Based on Population, Poverty, Infant Mortality and Weighted Criteria

Province	Population-based	Poverty-based	Infant Mortality - based	Ethnic Minority-based	Civil Works Allocation	Fund for Poor Allocation
Kon Tum	9%	13%	18%	13%	11%	11%
Gia Lia	25%	31%	30%	31%	25%	28%
Dak Lak	34%	31%	28%	31%	27%	34%
Dak Nong	10%	9%	11%	9%	16%	14%
Lam Dong	23%	16%	13%	16%	21%	13%

Table A2.7: Reported Illness in past four weeks for Total Population in Project and Non-Project Provinces, 2004, 2006 and 2008

	2004 VHLSS		2006 VHLSS		2008 VHLSS		% Change 2004–2008	
	Project provinces ⁶	Non-project provinces ⁷	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces
Illness in past 4 weeks	15%	9%	23%	16%	17%	17%	19%	78%

Source: VHLSS. 2004, 2006 and 2008.

⁵ Report and recommendation of the President and project completion review mission.⁶ Project provinces include Dak Lak, Dak Nong, Gia Lai, Kon Tum, Lam Dong.⁷ Non project provinces include Vinh Long, Quang Binh, Quang Nam, An Giang, Lang Son, Quang Tri, Thanh Hoa, Hoa Binh, Bac Can, Yen Bai, Ca Mau, Quang Ngai, Dong Thap, Bac Lieu, Lao Cai, Ninh Thuan, Binh Phuoc, Soc Trang, Tra Vinh.

Table A2.8: Proportion Using Government Hospitals for Project and Non-Project Provinces, 2004, 2006 and 2008

	2004 VHLSS		2006 VHLSS		2008 VHLSS		% Change 2004–2008	
	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces
Outpatient Government hospital								
All	25%	18%	26%	22%	29%	22%	20%	20%
Quintile 4	29%	21%	30%	24%	39%	25%	37%	22%
Quintile 5	35%	23%	39%	27%	43%	27%	20%	17%
Women	23%	18%	26%	22%	28%	21%	21%	17%
Non-Kinh	21%	22%	17%	20%	19%	22%	-10%	0%
Inpatient Government hospital								
All	78%	77%	75%	72%	81%	79%	5%	3%
Quintile 4	82%	81%	83%	81%	85%	85%	5%	5%
Quintile 5	91%	85%	89%	82%	84%	88%	-8%	3%
Women	78%	75%	74%	72%	81%	79%	4%	6%
Non-Kinh	77%	73%	72%	62%	80%	72%	4%	-1%

Source: VHLSS, 2004, 2006 and 2008.

Table A2.9: Provincial Health Expenditure Compared to Funds Required for Project Sustainability

Province	Total ⁸ Local Budget (\$ '000) in 2009	Local Budget for Maintenance (\$ '000)	Project Capital Spending (\$ '000) ⁹	Required Annual Budget for Project Maintenance (\$ '000)	Required Funds for Maintenance as % of Available Local Budget for Maintenance
Kon Tum	5,681.5	170.4	1,798.7	89.9	53%
Gia Lia	10,057.2	301.7	3,998.9	199.9	66%
Dak Lak	16,845.8	505.4	4,368.3	218.4	43%
Dak Nong	5,230.9	156.9	2,537.5	126.9	81%
Lam Dong	11,867.8	356.0	3,356.5	167.8	47%

⁸ Ministry of Health, Health Statistics Yearbook 2009.⁹ Equipment and civil works expenditure per province for the Project is allocated on the basis of provincial civil works allocations in the MoH PCR.

Table A2.10: Number of days off due to the illness or injuries per person being ill or injured by sex, urban rural, region, income quintile, age group and ethnicity

	2004 VHLSS		2006 VHLSS		2008 VHLSS		% Change 2004–2008	
	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces
All	15.3	17.2	11.4	13.2	11.7	13.2	-24%	-23%
Female	15.1	17.2	11.9	13.2	12.2	13.2	-20%	-23%
Quintile 4	15.5	16.0	10.2	12.4	9.6	12.4	-38%	-23%
Quintile 5	15.3	13.7	11.2	12.0	9.1	10.9	-40%	-21%
Non Kinh	14.1	18.5	12.8	12.9	12.7	13.1	-9%	-29%

Source: VHLSS. 2004, 2006 and 2008.

BUDGET SUMMARY AND ACTUAL COST

Project Costs by Component (\$ millions)

Item	Appraisal			Actual		
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total
1. Upgrading Facilities and Equipment						
1.1. Provincial Services	3.10	1.40	4.50	3.99	2.07	6.06
1.2. District Services	5.17	5.21	10.37	5.79	2.54	8.62
Subtotal	8.26	6.61	14.87	9.78	4.61	14.68
2. Human Resource Development						
2.1. Quality of Care	0.14	2.07	2.21	0.07	1.46	1.46
2.2. Secondary Training	1.05	1.15	2.20	0.16	1.05	1.05
Subtotal	1.19	3.21	4.40	0.23	2.52	2.52
3. Management and Financing						
3.1. Management and Information	0.12	0.47	0.60	0.07	1.46	1.46
3.2. Financing	0.42	5.16	5.58	0.39	4.31	4.70
3.3. Project Management	0.29	1.47	1.76	0.13	2.48	2.61
Subtotal	0.83	7.11	7.94	0.59	8.25	8.77
Taxes, Duties and Land	-	1.37	1.37	-	1.64	1.64
Contingency						
Physical	0.43	0.35	0.78	-	-	-
Price	0.34	0.37	0.71	-	-	-
Subtotal	0.77	0.72	1.49	-	-	-
Service Charge During Implementation	0.51	-	0.51	0.37	-	0.37
Total	11.55	19.03	30.58	10.98	17.02	27.98

Expenditure Accounts by Financier (\$ million), Actual

Category	Description	ADB	Govt	SIDA	Total
1	Civil Works	5.50	1.40	-	6.91
02A	Medical Equipment	9.15	-	-	9.15
02B	Other Equipment	0.74	0.03		0.77
02C	Project Management	0.39	0.18		0.57
03A	Overseas Training	0.14	0.01		0.15
03B	Domestic Training	1.35	0.17	0.48	2.00
4	Communication	-	0.00		0.00
5	Consulting Services	0.55	0.01	0.39	0.95
06A	Overseas Transport	0.03	0.23		0.27
06B	Domestic Transport	0.09	0.03		0.13
7	Research, M&E	0.04	0.13		0.17
8	Project Staff	0.24	0.04		0.28
9	Interest Charge	0.37			0.37
10	Unallocated	-			-
	Operations & Maintain		0.03		0.03
	Land Acquisition		0.05		0.05
	Fund for the Poor		-	4.67	4.67
	Tax and Duties		1.53		1.53
Total		18.59	3.86	5.54	27.98

Expenditure Accounts by Financier (\$ million), Appraisal

Category	Description	ADB	Govt	SIDA	Total
1	Civil Works	5.30	0.96	-	6.26
02A	Medical Equipment	8.67	0.43	-	9.10
02B	Other Equipment	0.46	0.06	-	0.52
02C	Project Management	-	-	-	-
03A	Overseas Training	-	-	-	-
03B	Domestic Training	1.72	0.16	0.68	2.56
4	Communication	0.28	0.07	-	0.35
5	Consulting Services	0.50	-	0.86	1.36
06A	Overseas Transport	-	0.06	-	0.06
06B	Domestic Transport	0.29	-	-	0.29
7	Research, M&E	0.55	0.09	-	0.63
8	Project Staff	0.28	0.14	-	0.41
9	Interest Charge	0.51	-	-	0.51
10	Unallocated	1.49	-	-	1.49
	Operations & Maintain	-	1.43	-	1.43
	Land Acquisition	-	0.24	-	0.24
	Fund for the Poor	-	-	4.04	4.04
	Tax and Duties	-	1.37	-	1.37
Total		20.00	5.00	5.58	30.58

LIST OF PROCURED ITEMS¹

Type	Description	Unit	Quantity	Beneficiary	Amount (USD) ²
Vehicles					
	NISSAN URVAN QR25DE, 12 seats	Cars	7	Lam Dong PHC; Lam Dong IEC; Dak Nong PHC; Kon Tum SMS; Gia Lai IEC; Dak Lak PHC; Dak Lak Social Disease Centre	164,280
	7-seat car 5 PPMU and PMU	Unit	6	PMU and 5 PPMUs	164,280
	7-seat car	Unit	5	Kon Tum PHC; Kon Tum IEC; Dak Lak IEC; Dak Lak Secondary Medical School; Lam Dong Secondary Medical School.	13,127,775 JPY
	Ambulance	Unit	7	la Pa general hospital; Dak Lak Provincial general hospital; M'Drak general hospital; Dak Nong Provincial general hospital; Dak Song general hospital; Di Linh DHC; Lam Ha DHC.	23,470,615 JPY
Waste Management and Sterilisation					
	Autoclave 30-50 liters	Unit	8	Range sites	20,960
	Autoclave 75 liters	Unit	4	Ayun Pa GH (2); Dak Doa GH (1); la Pa GH (1);	35,000
	Drying oven	Unit	19	Range sites	22,705
	Low temperature sterilizer	Unit	1	Dak Lak Provincial General Hospital	67,155
	Washing machine 50 kg	Unit	9	Range sites	153,855
	Medical Solid Waste Incinerator, Model: TS 20	Unit	14	Gia Lai (6); Kon Tum (6); Lam Dong (2)	434,000.00
	Drying Oven, Model: LDO-150F	Unit	12	Dak Lak PHC (10); Dak Lak SMS (2)	42,000.00
	Autoclave 50L, Model: LAC-5060S	Unit	12	Dak Lak PHC (10); Dak Lak SMS (1); Lam Dong PHC (1)	48,000.00
	Washing Machine, Model: TS 255	Unit	1	Krong Pak general hospital	25,000.00

¹ Source: Records Central Project Management Unit.

² In USD unless otherwise stated.

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
Hospital Equipment					
	General Radiographic X-ray Apparatus, Model: CM40KW	System	2	Dak Lak PHC and Di Linh Leprosy treatment area (Lam Dong)	69,000
	Broncho-Videoscope System Model: Exera II 180	System	1	Dak Lak Provincial General Hospital (PGC)	4,300,800 JPY
	B/W General Ultrasound System Model: Prosound 6	Unit	4	Dak Lak PGC (2); Krong Bong general hospital (01); and Di Linh Leprosy treatment area (01)	8,716,800 JPY
	Electrocardiograph 3 channels Model: ECG-9620L	Unit	2	Di Linh Leprosy treatment area (01) and Lam Dong PHC (01)	374,400 JPY
	Audiometer Model: MI-26	Unit	6	Lam Dong PHC (01); Gia Lai PHC (01); Dak Nong PHC (1); Dak Lak PHC (02); and Krong Bong GH (1).	40,800
	Electro-surgical Unit ARC300/BOWA/Germany	Unit	7	Di Linh DHC (1); Lam Ha DHC (1); An Khe GH (1); Ayun Pa GH (1); Dak Doa GH (1); Ia Pa GH (1); Dak Lak provincial GH (1).	60,200
	Surgical Laser SmartXide/	Unit	1	Dak Lak provincial GH	15,000
	Anaesthesia apparatus with Ventilator and Air compressor Fabius/Dräger/Germany	Unit	15	Di Linh DHC (1); Lam Ha DHC (1); Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); An Khe GH (1); Ayun Pa GH (1); Mang Yang GH (1); Ia Pa GH (1); Dak Lak provincial GH (1); Krong Bong GH (1); Krong Pak GH (1); Easoup GH (1); Dak Nong GH (1); Dak Song GH (1).	367,500

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
	Patient Monitor Vista XL/Dräger/USA	Unit	7	Lam Dong SMS (1); Lam Ha DHC (1); Di Linh DHC (1); Dak Lak provincial GH (2); Easoup GH (1); Dak Nong GH (1).	80,500
	Electric Low-pressure Continuous Suction Pump Constant 1400/Shin Ei Industries, Inc./Japan	Unit	24	Lam Dong SMS (2); Lam Ha DHC (5); Di Linh DHC (1); Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); An Khe GH (2); Ayun Pa GH (1); Mang Yang GH (1); Ia Pa GH (2); Krong Bong GH (1); Krong Pak GH (1); Easoup GH (1); M'Drak GH (2); Dak Nong GH (1); Dak Song GH (1).	20,400
	Ceiling operating two light heads Sola 500 premium and Sola 500, Dräger, Germany	Unit	2	Dak Lak Provincial Hospital	29,700
	Major universal operating table CHS – 790, Choongwae Medical Corporation, Korea	Unit	2	Dak Lak Provincial Hospital (1) and M'Drak General hospital (1)	27,600
	Patient monitor Vista XL, Dräger, USA	Unit	2	Krong Bong General hospital (1); and Di Linh Leprosy Treatment area (1)	15,900
	Ventilator for adult and child Savina, Dräger, Germany	Unit	3	Krong Pak General hospital (2); and Dak Lak SMS (1)	74,250

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
	Ceiling Operating Light	Unit	10	Di Linh DHC (1); Lam Ha DHC (1); An Khe GH (1) Mang Yang GH (1); Ia Pa GH (1); Krong Bong GH (1); Dak Song GH (1); Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1).	24,000
	Mobile Operating Light	Unit	2	M'Drak GH	24,000
	Major Operating Instrument Set PMS/Germany	Set	8	Di Linh DHC (1); Lam Ha DHC (1); An Khe GH (2); Dak Doa GH (1); Ia Pa GH (1); M'Drak GH (1); Dak Nong GH (1)	21,818.16
	Major Urology Surgical Instrument Set PMS/Germany	Set	1	Dak Nong GH	11,900
	Medium Operating Instrument Set PMS/Germany	Set	14	Di Linh DHC (1); Lam Ha DHC (1); Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); An Khe GH (1); Ia Pa GH (1); Krong Bong GH (1); Krong Pak GH (1); M'Drak GH (2); Dak Nong GH (1); Dak Song GH (2).	50,909.04
	Minor Operating Instrument Set PMS/Germany	Set	11	Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); Dak Doa GH (1); Ia Pa GH (1); Krong Bong GH (1); Krong Pak GH (1); M'Drak GH (2); Dak Nong GH (1); Dak Song GH (1).	29,999.97
	Operating Instrument Set for Orthopedic PMS/Germany	Set	2	Lam Ha DHC (1); Di Linh DHC (1)	27,272.72
	Eye Surgical Instrument Set	Set	2	Lam Ha DHC (1); Di Linh DHC (1)	16,363.64

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
	Major Universal Operating Table CHS790/Choongwae/Korea	Unit	12	Dak Song GH (1); Dak Lak provincial GH (1); Krong Bong GH (1); Krong Pak GH (1); An Khe GH (1); Ia Pa GH (1); Dak Doa GH (1); Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); Lam Ha DHC (1); Di Linh DHC (1).	70,944
	Bone Drilling Apparatus Electric	Unit	2	Dak Doa GH (1); Easoup GH (1)	30,545.46
	Bone Cutter Electric	Unit	2	Dak Lak provincial GH (1); M'Drak GH (1)	30,545.46
	Gypsum Cutter Electric	Unit	3	Dak Lak provincial GH (1); M'Drak GH (2)	13,636.35
	Emergency Bed	Unit	10	Dak Song GH (4); An Khe GH (6).	24,100
	Ventilator for Adult and Child Model: NEWPORT e360 Plus	Unit	17	Di Linh DHC (1); Lam Ha DHC (1); Gia Lai (5) including: An Khe GH; Ayun Pa GH; Dak Doa GH; Mang Yang GH; Ia Pa GH; Dak Nong GH (1); Dak Song GH (1); Kon Tum (3) including: Ngoc Hoi; Dak Glei; Kon Plong DHC; Dak Lak (5) including: Dak Lak Provincial General Hospital (4); and Krong Bong GH (1).	415,820
	Black/White Ultrasound System for OB/GYN, Model: HD3	Unit	12	Gia Lai (3) and Kon Tum (3)	240,624
	Black/White General Ultrasound System, HD3	Unit	3	Di Linh DHC (1); Lam Ha DHC (1); Dak Lak Preventive Health Centre (1)	60,156

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
	Defibrillator with Pacemaker, Model: TEC-5531K	Unit	6	Lam Dong (2); Lam Ha DHC (1); Di Linh DHC (1); Dak Lak (4) including: Krong Pak GH (1); Krong Bong GH (1); Easoup GH (1); M'Drak (1)	5,252,148 JPY
	Defibrillator, Model: TEC-5521K	Unit	1	Dak Song GH	727,000 JPY
	Patient Monitor, Model: BSM-4101K	Unit	18	Lam Dong (2); Lam Ha DHC (1); Di Linh DHC (1); Dak Lak (6) including: Provincial GH (2); Krong Pak GH (1); Krong Bong GH (1); Easoup GH (1); M'Drak (1); Gia Lai (5) including: An Khe GH (1); Ayun Pa GH (1); Mang Yang GH (1); Ia Pa GH (1); Dak Doa GH (1); Dak Nong (2): Dak Nong GH (1); Dak Song GH (1); Kon Tum (3) including: Ngoc Hoi, Dak Glei; Kon Plong DHC;	18,285,030 JPY
	Electrocardiograph, Model: ECG 3102	Unit	18	Lam Dong (2); Lam Ha DHC (1); Di Linh DHC (1); Dak Lak (6) including: Dak Lak Provincial GH; Krong Pak GH; Krong Bong GH; Easoup GH; M'Drak; Dak Lak Preventive Health Centre; Kon Tum (3) including: Ngoc Hoi, Dak Glei; Kon Plong DHCs; Dak Nong GH (1); Dak Song GH (1); Gia Lai (5) including: An Khe GH (1); Ayun Pa GH (1); Mang Yang GH (1); Ia Pa GH (1); Dak Doa GH (1);	30,600
	Electroencephalograph, Model: SIGMA PLPro	Unit	2	Lam Ha DHC (1); Di Linh DHC (1);	35,800

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
Obstetrics-paediatrics					
	Infant Incubator	Unit	15	Dak Lak Provincial GH (2); Krong Bong GH (1); Krong Pak GH (1); Di Linh DHC (2); Lam Ha DHC (1); Dak Nong GH (1); Dak Song GH (1); Dak Doa GH (1); Mang Yang GH (1); Ia Pa GH (1); Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1).	15,690,000 JPY
	Electric Low Pressure Continuous Suction Pump	Unit	10	Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); Krong Pak GH (1); Easoup GH (1); M'Drak GH (1); Di Linh DHC (1); Lam Ha DHC (1); Dak Nong GH (1); Dak Song GH (1).	445,000 JPY
	Doppler Foetus Apparatus	Unit	7	Di Linh DHC (1); Lam Ha DHC (1); Dak Lak Provincial GH (1); Krong Bong GH (1); Krong Pak GH (1); Easoup GH (1); M'Drak GH (1).	791,000 JPY
	Colposcope with TV System	Unit	11	Gia Lai (5) including: An Khe GH (1); Ayun Pa GH (1); Dak Doa GH (1); Mang Yang GH (1); Ia Pa GH (1); Kon Tum (3) including: Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); Krong Pak GH (1); Dak Nong GH (1) and Dak Song GH (1).	14,432,000 JPY
	Patient Monitor	Unit	13	Gia Lai (4) including: An Khe GH (1); Dak Doa GH (1); Mang Yang GH (1); Ia Pa GH (1); Dak Lak (9) including: Provincial GH (4); Krong Pak GH (1); Krong Bong GH (1); Easoup GH (1); M'Drak GH (2);	12,402,000 JPY
	Obstetrical Monitor	Unit	8	Gia Lai (3) including: An Khe GH (1); Dak Doa GH (1); Mang Yang GH (1); Kon Tum (3) including: Ngoc Hoi GH (1), Dak Glei DHC (1); Kon Plong DHCs (1); Dak Nong GH (1) and Dak Song GH (1).	4,336,000 JPY

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
	Infusion Pump	Unit	23	Gia Lai (5); Kon Tum (3); Dak Lak (8); Lam Dong (6)	34,155
	Electric Syringe Pump	Unit	23	Gia Lai (6), Kon Tum (3) Dak Lak (9) Lam Dong (4)	27,462
	Electric Suction Unit	Unit	1	Dak Song GH (1).	118,000 JPY
	Infant Warmer	Unit	15	Gia Lai (4); Dak Lak (6) and Lam Dong (2)	94,260
	Phototherapy Lamp for Jaundice	Unit	16	Gia Lai and Dak Lak	5,120,000 JPY
	OB/GYN Suction Unit	Unit	2	Di Linh DHC (1); Lam Ha DHC (1).	748,000 JPY
	Diathermy Apparatus for Cervix Surgery	Unit	2	Di Linh DHC; Lam Ha DHC	724,000 JPY
	Infant Incubator Model: Neo-Servo	Unit	2	Dak Lak Secondary Medical School (SMS)	1,130,000 JPY
	Infant Warmer Model: IC-SCA	Unit	2	Dak Lak SMS	4,000
	Phototherapy Lamp for Jaundice Model: LF-301	Unit	2	Dak Lak SMS	247,000 JPY
	Electric Low Pressure Continuous Suction Unit Model: Constant - 1400	Unit	4	Dak Lak SMS	80,000 JPY
	Hemodialysis Apparatus Model: AK 96	Unit	10	Dak Lak Provincial General Hospital	15,200
	Hemodialysis Apparatus	System	1	Dak Lak Provincial General Hospital	24,500

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
Laboratory Equipment					
	Gas Chromatography	Unit	1	Lam Dong PHC	72,100
	High Performance Chromatography	Unit	1	Gia Lai PHC	97,000
	Atomic Absorption	Unit	2	Kon Tum PHC (1) and Lam Dong PHC (1)	196,000
	Real Time PCR	Unit	2	Kon Tum PHC (1) and Lam Dong PHC (1)	200,000
	Fluorescent microscope with camera H600 AFL, Hund - Germany, Germany	Unit	1	Lam Dong PHC	10,030 EUR
	Binocular microscope FE 2020, Euromex – Netherland, Japan	Unit	45	Lam Dong SMS (30); Dak Nong (1); Dak Lak PHC (2); Kon Tum (9)	46,575 EUR
	Automatic haematology analyser 18 parameters Celltac α MEK – 6400K, Nihon Kohden – Japan, Japan	Unit	15	Gia Lai (6); Dak Nong GH (1); Dak Lak (5); Kon Tum (3).	183,375
	Automatic haematology analyser 26 parameters Celltac E MEK – 7222K, Nihon Kohden – Japan, Japan	Unit	1	Dak Lak Provincial General Hospital	25,070
	Semi-automatic blood coagulation analyzer CL Analyzer, IL (Instrumentation Laboratory), Italy	Unit	5	Dak Lak Provincial General Hospital (1); Dak Lak PHC (1); Kon Tum (3)	23,520
	Urine analyzer CombiScan 100, Analyticon, Germany	Unit	17	Kon Tum (3); Dak Lak (5) Dak Nong (2); Lam Dong (2); Gia Lai (5)	19,635
	Semi-automatic chemistry analyzer BTS – 330, Biosystems, Spain	Unit	17	Gia Lai (4), Dak Nong (2), Dak Lak (5), Kon Tum (3)	86,632
	Automatic chemistry analyzer A25, Biosystems, Spain	Unit	2	Dak Lak (2) including: Provincial GH and Ea Soup GH	58,800
	Blood gas analyser RapidLab 248, Siemens, UK	Unit	3	Dak Lak PHC (1); Gia Lai 2) including: Ayun Pa and Ia Pa GH	38,220
	Electrolyte analyser Rapidchem 744, Siemens, USA	Unit	3	An Khe General Hospital (1); Dak Song GH (1); Ea Soup GH (1).	19,992
	Fluorescent spectrophotometer F – 2500, Hitachi, Japan	Unit	1	Dak Lak PHC	24,985

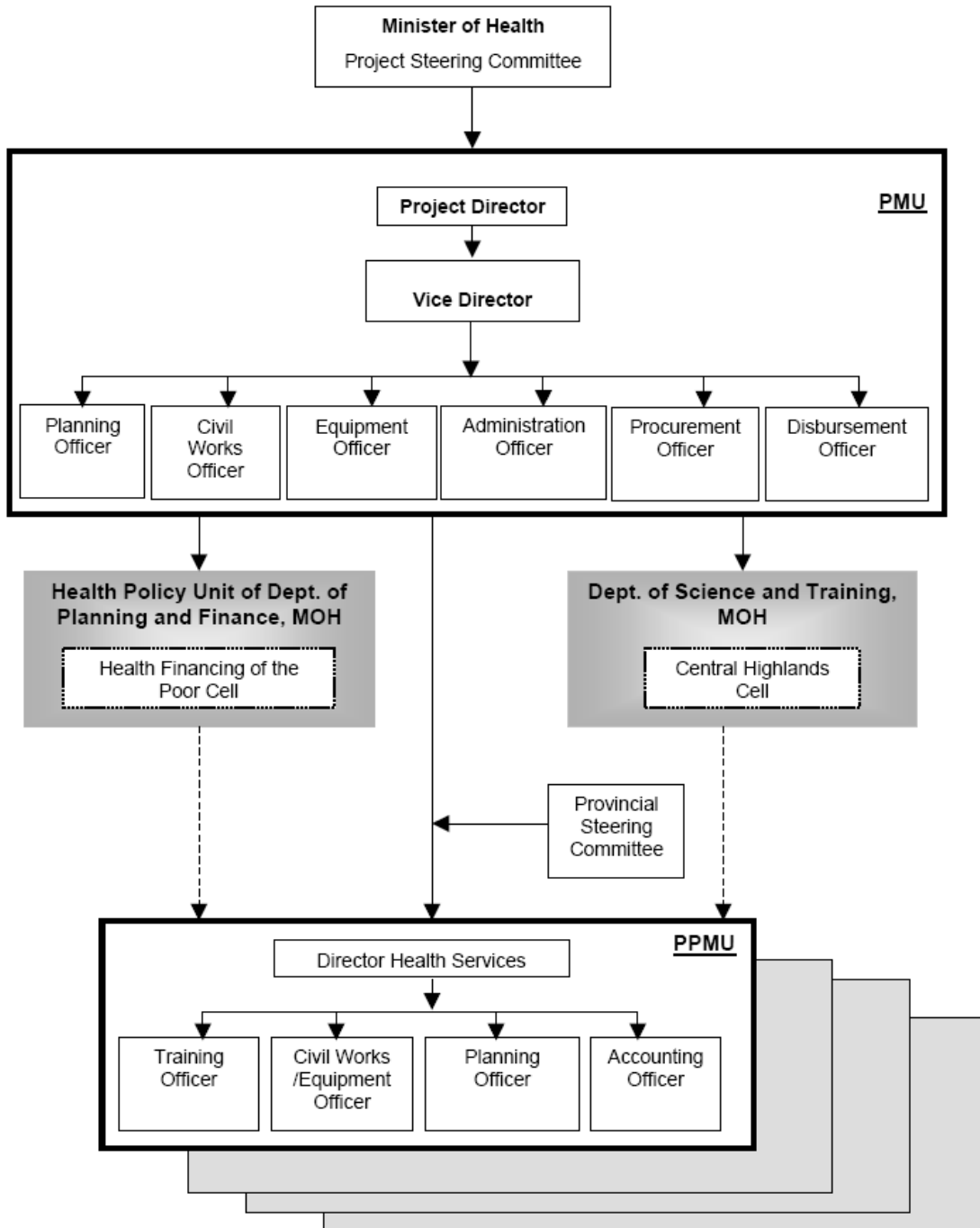
Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
Laboratory Equipment					
	Binocular microscope FE 2020,	Unit	45	Lam Dong SMS (30); Dak Lak PHC (2); Kon Tum (9)	46,575 EUR
	Automatic haematology analyser 18	Unit	15	Gia Lai (6); Dak Nong GH (1); Dak Lak (5); Kon Tum (3)	183,375
	Automatic haematology analyser 26	Unit	1	Dak Lak Provincial General Hospital	25,070
	Semi-automatic blood coagulation analyser CL Analyser, IL (Instrumentation Laboratory), Italy	Unit	5	Dak Lak Provincial General Hospital (1); Dak Lak PHC (1); Kon Tum (3) including: Ngoc Hoi, Dak Glei, Kon Plong	23,520
	Urine analyser CombiScan 100, Analyticon, Germany	Unit	17	Kon Tum (3); Dak Lak (5); Dak Nong (2); Lam Dong (2); Gia Lai (5);	19,635
	Semi-automatic chemistry analyser BTS – 330, Biosystems, Spain	Unit	17	Gia Lai (4); Lam Dong (3); Dak Nong (2); Dak Lak (5); Kon Tum (3)	86,632
	Automatic chemistry analyser A25, Biosystems, Spain	Unit	2	Dak Lak (2) including: Provincial GH and Ea Soup GH	58,800
	Blood gas analyser RapidLab 248, Siemens, UK	Unit	3	Dak Lak PHC (1); Gia Lai 2) including: Ayun Pa and Ia Pa GH	38,220
	Electrolyte analyser Rapidchem 744, Siemens, USA	Unit	3	An Khe General Hospital (1); Dak Song GH (1); Ea Soup GH (1).	19,992
	Fluorescent spectrophotometer F – 2500, Hitachi, Japan	Unit	1	Dak Lak PHC	24,985
	Incubator, Model: JSGI-150T	Unit	10	Dak Lak PHC	24,980
	Universal Centrifuge, Model: ROTINA 380	Unit	11	Dak Lak SMS (10); and Gia Lai PHC (01).	35,827 EUR
	Sample Mill/Grinder, Model: M20	Unit	3	Dak Lak PHC (1); Lam Dong PHC (1); and Gia Lai PHC (1)	20,970
	Real – time PCR System, including these following items:	Unit	1	Dak Lak PHC	105,000
	Elisa System, Model: TC 96	Unit	3	Easoup GH (1); Gia Lai PHC (1); and Dak Nong PHC (1)	44,970
	Binocular Microscope	Unit	53	Easoup GH (2) and Dak Lak SMS (50)	45,162 EUR
	Fluorescent Microscope with Camera	Unit	3	Dak Nong PHC (1); Gia Lai PHC (1); and Lam Dong PHC (1)	43,405.50 EUR
	Atomic Absorption Spectrometer System (AAS)	Unit	1	Dak Nong PHC	104,000

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
Diagnosis Equipment					
	General Radiographic X-ray Apparatus	Unit	10	Lam Dong (2); Gia Lai (2); Dak Nong GH (1); Kon Tum (3); Dak Lak (2); Dak Lak SDC (1)	211,500
	X-ray film Auto Processor	Unit	14	Lam Ha DHC (1); Di Linh DHC (1); An Khe GH (1); Kon Tum (3); Dak Lak (6)	70,000
	X-ray Protection Facilities	Unit	13	Gia Lai (4); Kon Tum (3); Dak Lak (5)	29,510
	C-Arm X-ray Machine with TV	Unit	1	Dak Lak Provincial GH	56,750
Office Equipment					
	Laptop Computer TOSHIBA Satellite M300-S411/ China	Unit	14	Lam Dong (3); Dak Lak (11)	74,561.20
	Personal Computer CMS X-Media	Unit	64	Dak Lak (62)	53,073.28
	Laser Printer HP P2015/ China	Unit	24	Dak Lak (22) including: Dak Lak SMS (8); Easoup GH (4); Krong Bong GH (10); Gia Lai: Phu Thien GH (2).	12,774.48
	Multifunction Projector BenQ MP724	Unit	10	Dak Lak SMS	28,972.70
	Sound amplifier with Microphone	Set	31	Dak Lak SMS (30) and Krong Bong GH(1)	84,526.15
	Photocopy Machine SHARP	Unit	4	Dak Lak (3) and Krong Bong GH	22,061

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
IEC Equipment					
	Digital Camera	Unit	27	Gia Lai (6)); Kon Tum SMS (1); Kon Tum IEC centre (1); Dak Lak (18) Lam Dong IEC centre (1).	43,488.11
	Professional Digital Camera	Unit	4	Kon Tum IEC (1); Dak Lak IEC (1); Lam Dong IEC (1); Gia Lai IEC (1).	69,734.36
	Picture Processing System Non-Linear type	Unit	3	Gia Lai IEC (1); Kon Tum IEC (1); Dak Lak IEC (1);	24,434.01
	Video Cassette Recording and Processing Unit	Unit	4	Gia Lai IEC (1); Kon Tum IEC (1); Lam Dong IEC (2);	4,440.68
	Sound Amplifier with Microphone and Loudspeaker	Set	22	Kon Tum IEC (1); M'Drak GH (1); Dak Lak IEC (14); Lam Dong SMS (5); Lam Dong IEC (1).	382,341.96
	Audio System	Set	1	Kon Tum IEC.	4,411.58
Dental and Eye Equipment					
	Dental Chair and Equipment	Unit	9	An Khe GH (1); Ia Pa GH (1); Ngoc Hoi DHC (1); Dak Glei DHC (1); Kon Plong DHC (1); Dak Song GH (1); Easoup GH (1); Lam Ha DHC (1); Di Linh (1)	85,860
	Dental Examining – Treatment Instrument Set	Set	12	Lam Ha DHC (1); Di Linh DHC (1); Krong Pak GH (1); Dak Lak Preventive health centre (4); Gia Lai Preventive health centre (5).	15,411.72
	Dental Surgery Set	Set	6	Ayun Pa GH (1); Ia Pa GH (1); Krong Pak GH (1); Krong Bong GH (1); Easoup GH (1); Dak Lak Preventive health centre (1).	13,583.10
	Vision tester	Unit	8	Dak Nong (2) including: Dak Nong and Dak Song GH; Dak Lak (2) including: Krong Bong and Krong Pak GH; Kon Tum (4) including: Ngoc Hoi, Dak Glei, Kon Plong and Social Disease Centre;	63,331.04

Type	Name of Goods or Related Services	Unit	Quantity	Beneficiaries	Amount
	Audiometer TM-262/Welch Allyn/USA	Unit	7	Kon Tum (3) including: Ngoc Hoi, Dak Glei, Kon Plong; Dak Lak (2) including: PHC and Krong Pak; Dak Nong GH (1); Di Linh DHC (1)	50,467.20
	Ear and nose diagnostic set/ Welch Allyn/USA	Unit	5	Kon Tum (3) including: Ngoc Hoi, Dak Glei, Kon Plong; Lam Dong (2) including: Lam Ha and Di Linh DHCs	3,120
	Video Bronchoscopes system EB-270S/Fujinon/Japan	System	2	Dak Nong and Dak Song GH	56,977.56
	ENT examination and treatment system Classic II LXS and S-II chair (hydraulic)/JEDMED/USA	Unit	9	Dak Nong GH (1); Dak Song GH (1); Krong Bong GH (1); Krong Pak (1); Kon Tum (3) including: Ngoc Hoi, Dak Glei, Kon Plong; Lam Dong (2) including: Lam Ha and Di Linh DHCs.	117,691.20

PROJECT MANAGEMENT ORGANIZATION



IMPLEMENTATION SCHEDULE

		2004	2005	2006	2007	2008	2009	2010
Upgrading Facilities and Equipment								
Civil Works	Planned							
	Implemented							
Equipment and Furnishing	Planned							
	Implemented							
Human Resources Development								
Clinical Services	Planned							
	Implemented							
Primary Care Services	Planned							
	Implemented							
Health Promotion	Planned							
	Implemented							
Secondary Medical School	Planned							
	Implemented							
Equipment and Furnishing	Planned							
	Implemented							
Management and Financing								
Supervision of Care	Planned							
	Implemented							
Information System	Planned							
	Implemented							
Care for the Poor Fund	Planned							
	Implemented							
Project Advance Action	Planned							
	Implemented							
Implementation Support	Planned							
	Implemented							

STATUS OF COMPLIANCE WITH MAJOR LOAN COVENANTS

Covenants		Reference in Loan Agreement	Status of Compliance
A.	General		
1.	The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound administrative, financial, engineering, environmental and health care practices.	Art IV, Sec. 4.01 [a]	Complied with
2.	In the carrying out of the Project and operation of the Project facilities, the Borrower shall perform, or cause to be performed, all obligations set forth in Schedule 6 to this Loan Agreement.	Art IV, Sec. 4.01 [b]	Mostly complied with, see details below and PCR from the Government
3.	The Borrower shall make available promptly as needed, the funds, facilities, services, land and other resources which are required, in addition to the proceeds of the Loan for the carrying out of the Project and for the operation and maintenance of the Project facilities.	Art. IV, Sec. 4.02	Complied with
4.	In the carrying out of the Project, the Borrower shall cause competent and qualified consultants and contractors, acceptable to the Borrower and the Bank, to be employed to an extent and upon, terms and conditions satisfactory to the Borrower and the Bank.	Art IV, Sec. 4.03 [a]	Complied with
5.	The Borrower shall cause the project to be carried out in accordance with plans, design standards, specifications, work schedules and construction methods acceptable to the Borrower and the Bank. The Borrower shall furnish, or cause to be furnished, to the Bank, promptly after their preparation, such plans, design standards, specifications and work schedules, and any material modifications subsequently made therein, in such detail as the Bank shall reasonably request.	Art IV, Sec. 4.03 [b]	Complied with
6.	The Borrower shall ensure that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.	Art. IV, Sec. 4.04	Complied with
7.	The Borrower shall make arrangements satisfactory to the Bank for insurance of the Project facilities to such extent and against such risks and in such amounts as shall be consistent with sound practice.	Art. IV, Sec. 4.05 [a]	Government is self insured for its assets

	Covenants	Reference in Loan Agreement	Status of Compliance
8.	Without limiting the generality of the foregoing, the Borrower undertakes to insure, or cause to be insured, the goods to be imported for the Project and to be, financed out of the 'proceeds of the Loan against hazards incident to the acquisition transportation and delivery thereof to the place of use or 'installation, and for such insurance any indemnity, shall be payable in a currency freely usable to replace or repair such goods.	Art. IV, Sec. 4.05 [b]	Complied with
9.	The Borrower shall maintain, or cause to be maintained, records and accounts adequate to identify the goods and services and other items of expenditure financed out of the proceeds of the Loan, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, the operations and financial condition of the agencies of the Borrower responsible for the carrying out of the Project and operation of the Project facilities, or any part thereof.	Art. IV, Sec. 4.06 [a]	Complied with
10.	The Borrower shall enable the Bank, upon the Bank's request, to discuss the Borrower's financial statements for the Project and its financial affairs related to the Project from time to time with the Borrower's auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by the Bank, provided that any such discussion shall be conducted only in the presence of an authorized officer of the Borrower unless the Borrower shall otherwise agree.	Art. IV, Sec. 4.06 [c]	Complied with
11.	The Borrower shall furnish, or cause to be furnished, to the Bank all such reports and information as the Bank shall reasonably request concerning (i) the Loan, and the expenditure of the-proceeds and maintenance of the service thereof; (ii) the goods and services and other items of expenditure financed out of the proceeds of the Loan; (iii) the Project; (iv) the administration, operations and financial condition of the agencies of the Borrower responsible for the carrying out of the Project and operation of the Project facilities, or any part thereof; (v) financial and economic conditions in the territory of the Borrower and the international balance-of-payments position of the Borrower; and (vi) any other matters relating to the purposes of the Loan.	Art. IV, Sec. 4.07 [a]	Complied with

	Covenants	Reference in Loan Agreement	Status of Compliance
12.	The Borrower shall enable the Bank's representatives to inspect the Project, the goods financed 'out of the proceeds of the Loan, and any relevant records and documents.	Art. IV, Sec. 4.08	Complied with
13.	The Borrower shall ensure that the Project facilities are operated, maintained and repaired in accordance with sound administrative, financial, engineering, environmental, and maintenance and operational practices.	Art. IV, Sec. 4.09	Complied with
14.	It is the mutual intention of the Borrower and the Bank that no other external debt owed a creditor other than the Bank shall have any priority over the Loan by way of a lien on the assets of the Borrower. To that end, the Borrower undertakes (i) that, except as the Bank may otherwise agree, if any lien shall be created on any assets of the Borrower as security for any external debt, such lien will <u>ipso facto</u> equally and ratably secure the payment of the principal of, and interest charge and any other charge on, the Loan' and (ii) that the Borrower, in creating or permitting the creation of any such lien,' will make express provision to that effect.	Art. IV, Sec. 4.10 [a]	Complied with
15.	The provisions of paragraph (a) of this Section shall not apply 'to (i) any lien created on property, at the time of purchase thereof, solely as security for payment of the purchase price of such property; or (ii) any lien arising in the .ordinary course' of banking transactions and securing a debt maturing not more than one year after its date.	Art. IV, Sec. 4.10 [b]	
16.	The term "assets of the Borrower" as used in paragraph (a) of this Section includes assets of any administrative subdivision or any agency of the Borrower and .assets of any 'agency of any such administrative subdivision, including the State Bank of Viet Nam and any other institution performing the functions of a central bank for the Borrower.	Art. IV, Sec. 4.10 [c]	
17.	<u>Within three (3) months of the effective date</u> , the Borrower shall establish the PSC, comprising the Minister of Health, or a vice-minister authorized by the Minister, who shall act as the chairperson and senior officials from the Ministry of Planning and Investment, Office of the Government, the Ministry of Finance, the Viet Nam Social Security and the State Bank of Viet Nam. The PSC shall provide overall guidance for the implementation of the Project, and coordinate relevant ministries to ensure timely implementation of the Project.	Schedule 6, para. 2	Decision No. 4115/QD-BYT dated 18 November 2004: A central PMU and steering committee were established, along with advisory committees.

	Covenants	Reference in Loan Agreement	Status of Compliance
18.	The PMU, established under MOH, shall be headed by a project director and work under the overall guidance of the PSC. The PMU shall manage and monitor the overall physical and financial progress of the Project, implement relevant project activities, and provide technical, coordination and logistics support to the PPMUs and the departments in charge of project implementation. The PMU shall start its initial operation with four (4) full time staff as needed to provide particular technical expertise and administrative support, including planning, accounting, disbursement, procurement, and contract administration. Relevant departments of MOH shall actively participate in implementing the technical aspects of the Project. Some activities under Part 2 and 3 as described in Schedule 1 to the Loan Agreement shall be conducted by the Department of Science and Training, and the Department of Planning and Finance, respectively.	Schedule 6, para. 3	Decision No. 6066 dated 24 November 2003 and No. 3885 dated 3 October 2006. The PMU and PPMUs of Dak Lak, Dak Nong, Gia Lai, Kon Tum, Lam Dong were established and implemented the Project activities.
19.	The PPMUs shall be headed by the directors of the Provincial Departments of Health and work under the overall guidance of the Provincial People's Committee of the Project Provinces. The PPMUs shall be principal units for project implementation in the respective project provinces. <u>Each of the PPMUs shall have three (3) full time staff at the commencement of the Project</u> for planning, accounting, disbursement, procurement and contract administration. Each of the PPMUs shall assign, promptly as needed, a staff for organizing community participation and timely BCC activities to ensure the community-based implementation.	Schedule 6, para. 4	Complied with.
20.	Except as the Bank may otherwise agree, the Borrower shall establish <u>within three months of the effective date</u> , an imprest account at a commercial bank acceptable to the Bank and cause each of the Project provinces to establish, <u>within three months of the effective date</u> , a second generation imprest account (SGIA) at the commercial bank, or branch thereof, where the imprest account is to be established, managed, replenished and liquidated in accordance with the Bank's "Loan Disbursement Handbook" dated January 2001, as amended from time to time, and detailed arrangements agreed upon between the Borrower and the Bank. The initial amount to be deposited into the imprest account shall not exceed the equivalent of one million dollars (\$1,000,000). The initial amount to be deposited into each of the SGIAs shall be	Schedule 3, para. 8 [a]	3 months after the effective date. Satisfactory: - PMU: 14/10/2004 - Kon Tum: 18/10/2004 - Gia Lai: 10/10/2004 - Dak Lak: 27/10/2004 - Dak Nong: 12/10/2004 - Lam Dong: 18/10/2004

Covenants	Reference in Loan Agreement	Status of Compliance
equivalent to six months' estimated expenditure, but in any event not exceeding the equivalent of one hundred thousand dollars (\$100,000).		
<p>21. The Borrower shall ensure that, <u>within one (1) year of the effective date</u>, each of the Project Provinces will have provided health cards to all eligible people in the Project area, and will continue to provide at least seventy-five (75) percent of the contribution required for the HCFP.</p> <p><u>Within one year of the effective date</u>, MOH shall have established detailed guidelines for implementing Decision 139, including accounting and auditing practices, and monitoring and reporting requirements.</p>	Schedule 6, paras. 5 and 6	The Project provided direct support to the poor and ethnic minorities throughout 4 support items under the HCFP. This included the registration of eligible people and provision of health cards. Furthermore procedures were established for claiming the support and the level of fixed and variable subsidies for food, travel and treatment.
<p>22. <u>At the end of three years after the effective date</u>, the Borrower shall cause each of the Project Provinces to undertake a review of the implementation of Decision 139 in terms of its effectiveness in targeting beneficiaries and in increasing access of the poor to good-quality healthcare, and its likely sustainability. Based upon the findings of the review, the Borrower shall revise Decision 139 implementation procedure <u>during the last two years of the Project</u>, if necessary.</p>	Schedule 6, para. 7	Not done. But the Government of Viet Nam has used the project experiences to amend the health insurance and health care financing laws to allow central subventions to be provided to provinces to enable them to provide services for the poor.
B. Ethnic Minorities		
<p>23. The Borrower and MOH shall ensure that the EMDP, prepared in accordance with ADB's guidelines, will be implemented to increase the quality of, and access to, health services received by ethnic minorities. The Borrower and MOH shall cause each of the Project Provinces to ensure that ethnic minorities will have equal opportunities to participate in training, recruitment, and promotion of health workers.</p>	Schedule 6, para 8	In regard to promoting access, the PMU and 5 PPMUs developed IEC documents about supported items under the health care for the poor component in indigenous languages of Giarai, Ede, Banahr, and K'Ho. Documents included panels, posters, audio cassettes, leaflets, along with broadcasts in minority languages. The Project organized specialty training courses for 2486 candidates, of which 551 were from ethnic minority groups, accounting for 22% of all trainees.
C. Gender Strategy		
<p>24. The Borrower and MOH shall ensure that the gender strategy will be implemented. The Borrower and MOH shall cause the Project Provinces to ensure that, in selecting participants for all training activities, priority will be given to women with a view to achieving at least the same proportion of women trainees as in the overall pool of the targeted staff, with the</p>	Schedule 6, para. 9	The PMU carried out several training activities to increase the participation of female staff in training schemes, such as organizing a coaching program to help candidates better prepare for the entry-level examination. Priority entry was also given to

	Covenants	Reference in Loan Agreement	Status of Compliance
	ultimate goal of reaching gender equality in training, recruitment, and promotion of health workers.		candidates from ethnic minority and female groups. The Project organized specialty training courses for 2486 candidates, of which, 1212 candidates were female (accounting for 49%).
D.	Environment		
25.	<p>The Borrower and MOH shall cause each of the Project Provinces to ensure that the location, design, construction, rehabilitation, and operation of health facilities will be implemented in accordance with ADB's Environment Policy dated 8 November 2002, as amended from time to time, and MOH's policies and procedures on medical waste management.</p> <p>The Borrower shall ensure that each district health center will prepare an environmental management plan for approval by MOH and ADB. For all major civil works, a site-specific environment examination shall be carried out to ensure that proper mitigation measures are mainstreamed. MOH shall further provide training to relevant medical staff in medical waste management, including waste separation and equipment operations.</p> <p>The Borrower shall ensure that the Project Provinces have sufficient budgets to maintain and operate the waste management plans</p>	Schedule 6, paras. 10 to 12	Waste management has been an item of significant investment in the Project, and was expanded in scope during implementation. All facilities visited during the PCR had operational waste management systems. The Project has complied with ADB's continuously amended and supplemental environmental policies and the MOH's policies and procedures on medical waste management. The Project has invested in health facilities such as construction of solid, liquid waste disposal and water supply systems and procurement of medical waste incinerator for the medical centers. Environmental reports on construction works were approved by the competent authorities. Training was also provided to 78 staff in medical waste management, including waste separation and equipment operation.
E.	HIV/AIDS		
26.	MOH shall ensure that HIV/AIDS activities are mainstreamed in the Project through the following measures: (a) project staff at central, provincial and district levels will be trained in personal knowledge and awareness of HIV/AIDS as well as how to plan for prevention of the spread of HIV/AIDS within the Project areas; (b) construction workers in the Project will be educated in how to prevent HIV/AIDS; (c) relevant HIV/AIDS issues will be integrated in all training activities for health care providers; and (d) HIV/AIDS messages will be integrated in the behaviour change communication activities supported by the Project.	Schedule 6, para 13	Unknown; no data provided.
F.	Involuntary Resettlement		
27.	The Borrower and MOH shall ensure that the Resettlement Plan agreed upon between the Borrower and ADB will be implemented, and that adequate budgetary support has been	Schedule 6, paras. 14 to 17	A total of 6 sites required land acquisition and resettlement. Land acquisition and resettlement activities in the project provinces

Covenants	Reference in Loan Agreement	Status of Compliance
<p>committed and will be made available to cover the costs of land acquisition and resettlement.</p> <p>Approvals to award of civil works contracts shall not be given until the required lands have been fully acquired, and affected households have been relocated and compensated at full replacement costs.</p> <p>In any additional affected households are found during the implementation of the Project, the Resettlement Plan shall be revised to include these affected persons.</p> <p>Resettlement activities shall be conducted in accordance with Vietnamese laws and ADB's policy on Involuntary Resettlement. The Borrower shall ensure that, in case of any discrepancies between the Borrower's laws, regulations and/or procedures and ADB's "Policy on Involuntary Resettlement", the ADB's policy will apply.</p>		<p>were implemented successfully, with 84 affected households (404 displaced persons) requiring land acquisition; resettlement and compensation. By 2006, 100% of the affected household had accepted the resettlement compensation rate with no complaints and grievances.</p>
<p>G. Integration with Other Projects</p>		
<p>28. MOH shall ensure that experiences from other relevant projects are integrated in the Project implementation. In particular, MOH shall evaluate the effectiveness of training programs being undertaken under the SIDA supported Community Based Health Development Project and its Community Based Education Pilot with a view to adopting the training curriculum in the Project. <u>The findings of the evaluation shall be discussed during the midterm review for potential integration in the project activities.</u> MOH shall consider the use of manuals on financial administration and project management developed following Decree No. 17/2001/ND-CP on the Management and Utilization of Official Development Assistance.</p>	<p>Schedule 6, para. 18</p>	<p>Results of ADB health insurance technical assistance used in the Project design and cost norms for HCFP were adopted by other donor supported regional projects and eventually by the Government amending its health insurance law.</p>
<p>H. Project Monitoring and Evaluation</p>		
<p>29. Baseline values for the indicators selected by the Borrower and ADB shall be estimated using data from the National Health Survey undertaken in 2001-2002. <u>At the end of the Project</u>, MOH shall undertake a sample household survey in the Project Provinces to estimate the final values of the indicators. Analysis of the verifiable indicators shall be disaggregated by province and district, socio-economic status, sex, and ethnicity. MOH shall monitor the environmental impact of the interventions by monitoring waste disposal and by checking the wastewater quality of randomly selected wells near the health centers financed under the Project. Monitoring of resettlement</p>	<p>Schedule 6, para 20</p>	<p>Not complied with. This has not been conducted as government procedure for international consultants is lengthy, it was agreed that ADB would do the procurement on behalf of the government. However, erroneous handling of bidding document resulted in miss-procurement, and by that time it was too late to hiring a firm under the project. Available project data was subsequently analyzed by a staff consultant.</p>

Covenants	Reference in Loan Agreement	Status of Compliance
activities, including relocated families, shall also be incorporated in the Project.		
30. MOH shall carry out the midterm and final evaluation of the Project, and the PMU shall have overall responsibility for data collection, analysis, and reporting to all concerned parties, including ADB. Delivery of services to the target beneficiaries, use of services, and impact of project activities shall be monitored through regular reports and routine data collection during the implementation period. Focus group discussion with beneficiaries shall be carried out at midterm and at the end of the Project.	Schedule 6, para. 21	Not complied with. This has not been conducted as government procedure for international consultants is lengthy, it was agreed that ADB would do the procurement on behalf of the government. However, erroneous handling of bidding document resulted in miss-procurement, and by that time it was too late to hiring a firm under the project. Available project data was subsequently analyzed by a staff consultant.
I. Reporting		
31. The Borrower shall (i) maintain, or cause the PMU and PPMUs to maintain, separate accounts for the Project; (ii) have such accounts and related financial statements audited annually, in accordance with appropriate auditing standards consistently applied, by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB; (iii) furnish to ADB, as soon as available but in any event not later than nine (9) months after the end of each related fiscal year, certified copies of such audited accounts and financial statements, and the report of the auditors relating thereto (including the auditors' opinion on the use of the Loan proceeds and compliance with the covenants of this Loan Agreement as well as on the use of the procedures for imprest account/statement of expenditures), all in English language; and (iv) furnish to ADB such other information concerning such accounts and financial statements and the audit thereof as ADB shall from time to time reasonably request.	Art. IV, Sec. 4.06 [b]	Accounts established and financial reporting complied with.
32. MOH shall submit to ADB, not later than twelve (12) months after the close of each fiscal year, a management letter together with a report of actions taken by the PMU to improve the financial management system based on the auditor's report and recommendations, as referred in Section 4.06 of the Loan Agreement	Schedule 6, para. 19	Complied with
33. The Borrower shall furnish, or cause to be furnished, to ADB quarterly reports on the carrying out of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in	Art. IV, Sec. 4.07 [b]	Complied with

Covenants	Reference in Loan Agreement	Status of Compliance
such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the period under review, steps taken or proposed to be taken to remedy these problems during the following period, proposed program of activities and expected progress during the succeeding period, and maintenance and repair activities undertaken on the health facilities.		
34. Promptly after physical completion of the Project, but in any event not later than three (3) months thereafter or such later date as may be agreed for this purpose between the Borrower and ADB, the Borrower shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by the Borrower of its obligations under this Loan Agreement and the accomplishment of the purposes of the Loan	Art. IV, Sec. 4.07 [c]	Complied with

PROJECT IMPACTS ON WOMEN AND ETHNIC GROUPS¹

1. Gender equality was integrated into the overall project design because the project aimed to raise the health status of about 2.2 million women, including 800,000 ethnic minority women, by focusing on reproductive health, obstetrics, gynaecological care, and maternal and child health. Through access to reproductive health services, the HICH project aimed to halve maternal deaths per year by the end of the project, and significantly increase the proportion of deliveries in the region receiving improved pre- and postnatal care. The project also aimed to reduce the burden of disease for women, and to increase women's social contribution to their families and communities.

2. A gender strategy was prepared and included in the loan design, supported by sound gender analysis. The gender analysis addressed several key issues, including barriers to women's access to health care, the gender division of labour within the health sector, women's health seeking behaviour and the opportunity costs for women seeking health care. A provision for the recruitment of a part-time gender adviser was also included in the report and recommendation of the President (RRP pp 36–39). Loan covenants included implementation of the gender strategy, which also required that priority be given to women when selecting participants for all training activities. The intent was to achieve at least the same proportion of women trainees as in the overall pool of the targeted staff. The ultimate goal was to reach gender equality in the training, recruitment, and promotion of health workers. Elements of the gender strategy were included in the main text of the project administration memorandum and the strategy was also included as an appendix.

3. The design and monitoring framework (DMF) in the RRP included several gender indicators for the project goal, including the following: (i) maternal mortality rates should be reduced from 170 to 110; (ii) infant mortality rates should be reduced by 30% (from 64 to 40 per 1,000 live births); and (iii) coverage of prenatal care should be increased from 70% to 90%. The indicator for improved access to health services (an objective in the DMF) was that 80% of deliveries should be attended by a trained health worker (an increase from 60%).

I. The Project's Gender Action Plan

4. The project gender adviser was hired for 6 person-months over the duration of the project to support implementation and monitoring of the gender and ethnic minorities action plan (GEMAP). This person prepared a GEMAP in the early stages of project implementation that contained good gender analysis and targets for women's participation. The gender adviser worked with each of the provinces to develop targets resulting in a well owned and understood GEMAP by all project staff. The GEMAP was regularly monitored. The main elements of the GEMAP were appropriate and implementable. These elements were as follows:

- (i) Upgrading facilities and equipment. Implementers will consult with women when upgrading facilities and ensure new facilities provide adequate visual and auditory privacy for patients, especially ethnic minority women.
- (ii) Development of human resources
 - (a) Medical facilities will have at least one staff member trained in women's health.
 - (b) Women, including ethnic minority women in the Central Highlands, will have medical training opportunities. At least 33% of females, or a proportion equivalent to the number of female staff employed at health centers, will be encouraged to participate in short-term training courses.

¹ This review is based on RSGS's Rapid Gender Assessment II conducted in 2009-10 on this Project. Its findings were updated where relevant with information from the MoH PCR and as collected during the PCR mission.

- At least 20% of trained medical doctors will be women. For professional areas where male participation is needed but few men are participating, the project should provide similar support mentioned above for male as well as female staff.
- (c) The capacity of staff in health facilities to implement gender equality activities will be strengthened through gender equality training and the dissemination of printed communication materials to the participating facilities. Implementers will conduct trainings for health care staff on local knowledge to better understand the health-seeking behaviours of women, especially ethnic minority women.
 - (d) Implementers will develop communication materials on health care that contain gender equality messages. They will consult with women, especially ethnic minority women, on evaluating and developing communication materials related to health care.
 - (e) Project managers will take steps to increase the numbers of female medical staff by recruiting more women, especially ethnic minorities from the Central Highlands.
 - (f) The PPMU will have at least one female member trained in managing gender-specific issues, who may be a representative from the provincial Viet Nam Women's Union (VWU).
 - (g) Gender capacity building will be provided to project implementation staff as needed, including in gender-specific health areas.
- (iii) Strengthening financing and management
 - (a) Capacity building to implement Decision 139 (Government of Viet Nam 2002) will ensure that health services are culturally compatible, and that communication materials to change women's health behaviour, including with regards to gender-based violence, are available in the local language.
 - (b) Sex-disaggregated data—and, where possible, data disaggregated by ethnic minority—will be included in the reporting system.
 - (c) Project managers will ensure financial resources for activities that promote gender equality.

II. The Project's Guideline for Ethnic Minorities Participation Framework

5. About 1.5 Million of the 4.4 million people in the five provinces of the region are members of ethnic minority groups. "Ethnic minority" refers to groups different from the majority ethnic group, the Kinh. The Central Highlands are equivalent to about one-fifth of Viet Nam's total land area and are one of areas of greatest ethnic diversity. Minority groups represent about 14% of Viet Nam's population, and about 28% of the total poor. About 33% of the total population in the central highlands are ethnic minorities: 43% in Gia Lai, 52% in Kon Tum, 29% in the provinces of Dak Lak and Dak Nong and 23% in Lam Dong.

6. In Viet Nam, a major challenge for the health system is to reduce the inequalities in the use of health services; see table A8.1 below. The burden of disease amongst EM is much higher than that amongst majority ethnic groups. Provinces with high concentrations of EM usually have high infant and child mortality rates. EM are less likely to seek health care than the Kinh because of (i) high costs and low coverage of health insurance; (ii) poor quality of services in rural area; (iii) little motivation/incentive for health care workers to serve the poor; (iv) geographical remoteness; (v) the lack of gender specific considerations; and (vi) language and cultural barriers. EMs have not been able to capture proportionate benefits from health services for these reasons.

Table A8.1: Health Indicators for the Central Highlands

Indicators	Viet Nam	Central Highlands	EM in Central Highlands
IMR (per 1000 live births)	36.7	64.4	40.0
Child malnutrition (%)	33.8	40.9	41.0
MMR (per 100,000 live births)	95	170.0	200-300
Supervised delivery (%)	82.4	59.6	30.0
Home Delivery	23.3	55.1	83.0
Tetanus Toxoid Vaccination	87.1	69.5	44.0

All figures from 2001; MMR Central highlands estimated; Source: Project situational analysis.

7. The Project fully mainstreams ethnic minorities' concerns into its design. Specific activities are incorporated into the designed health interventions to ensure that ethnic minorities share proportionately in project benefits. The Project aims to (i) improve and raise the health status of ethnic minority families by improving availability of and accessibility to high-quality health services; (ii) encourage and involve the participation of ethnic minority communities in health activities, ensure direct benefits to ethnic minority communities in health projects, and create conditions for equitable and sustainable development; (iii) support the health system to improve and increase the capability to provide culturally-sensitive health services and meet effectively the health needs of ethnic minority groups; and (iv) continue to reduce financial barriers to services for ethnic minority communities.

8. Specific measures will be taken to ensure that ethnic minority groups benefit proportionately. Specific activities to increase access to improved health services for ethnic minorities include:

- (i) Upgrading of facilities and new civil works will provide adequate visual and auditory privacy for patients, especially for 800,000 ethnic minority women.
- (ii) Priority will be given to health topics that disproportionately affect ethnic minorities at project-financed facilities.
- (iii) Health information materials will be more culturally compatible, the use of visual and audio aids will be encouraged, and collaboration with local mass organizations, such as the Women's Union, will be sought.
- (iv) HIV/AIDS awareness programs will be integrated into training programs in a manner that is culturally sensitive to ethnic minorities.
- (v) Full incorporation of special ethnic minority needs into the development of new materials through extensive consultation with ethnic minority groups.
- (vi) Cultural training for health personnel. Health providers will be trained to recognize local knowledge and understand health-seeking behaviors of ethnic minorities, including the use of traditional medicine, local reproductive health, and safe motherhood practices.

9. Focused interventions will ensure proportionate ethnic minority representation in the health care system, and in training courses for skills development. These include: (i) Measures to increase and retain the number of ethnic minority staff by (a) recruiting more ethnic minority

staff from the Central Highlands, and (b) capacity building in health issues that disproportionately affect ethnic minorities; (ii) Adequate opportunities to participate in training courses offered through the Project by relaxing entry standards for ethnic minorities; and (iii) The following targets are specified for training courses financed by the Project:

- (i) 50% of postgraduate degree places will be reserved for candidates from ethnic minority groups.
- (ii) 40% of the places on short-term training courses will be reserved for field workers from ethnic minority groups.
- (iii) 20% of medical doctors who receive training will come from ethnic minority groups.

10. The Project will reduce the costs of seeking health services for ethnic minority communities by supporting the implementation of Decision 139. Emphasis is placed on using supplementing government funds to cover ethnic minority families in the region. Capacity building to implement Decision 139 will ensure that health services are culturally appropriate, and that health information materials are available in the local language. A monitoring system will work to ensure the collection of information disaggregated by ethnicity.

III. Observations from the PCR Mission's Field Visits.

11. By nature of the occupation, women are providing a major share of the health service delivery in Viet Nam. It was unclear how much they actually contributed during the design and implementation phase of the project, but it was shown that women benefitted from the HRD activities due to positive selection of candidates. The PCR mission met several women that returned from both basic and post graduate courses and are engaged in the health service delivery in the region. Being the largest users of the health services, women (and children) benefitted greatly from the HCFP, providing them food, shelter, travel and subsidization of treatment costs. When the PCR mission visited the district hospitals it was primarily women that were found in the hospital and accommodation for the family members. Most IEC material that was shown for cultural behaviour change for EM was also targeted at women (and children)

IV. Review of the Gender and Ethnic Minorities Action Plan

12. Table A8.2 summarizes results to date for each project component.

Table A8.2. Health Care in the Central Highlands Project Summary of Gender Equality Results by Loan Component

Loan Component	GEMAP Elements	Gender Equality Results at project end
Project Goal: Improved health status	Increased access to health services by women and children is identified as a priority. Women's participation is identified as a priority.	The project increased access to health services by women and children, by providing subsidization for food, travel and treatment costs under the health care fund for the poor. More women attended health centers for prenatal checkups and childbirth. IMR reduced from 64% in 1999 to 27 in 2009.
Component A: Upgrading Facilities and Equipment	The project will strengthen the capacity of health services to better respond to the needs of women. Each medical facility will have at least	National statistics show that improved district health centers and equipment increased poor people's and thus in most cases women's access to health

	<p>one staff member trained in women's health.</p> <p>The project will ensure adequate visual and auditory privacy for women in new or upgraded facilities.</p>	<p>services: 50% more than for non poor both for in-patient and out-patient services. The trend was increasing utilization.</p> <p>Apart from Kontum province (79%) all other provinces reached over 90% of deliveries attended by a trained health workers (apart from the occasional male Obs/Gyn specialist, these were all women); prenatal care was 83%</p> <p>New facilities strengthened the capacity of the provinces to better respond to the needs of women.</p> <p>Provincial hospital buildings had new obstetric and paediatric wards. New equipment included ultrasound machines.</p> <p>Hospitals and health centers had better facilities for mothers and expecting mothers, including toilets and canteens that provided patients and their families with food, and a travel allowance that assisted with getting to hospital.</p> <p>IEC campaigns targeted disease topics in local EM languages that directly affected women, including diarrhoea prevention, breastfeeding, reproductive health, immunizations, safe pregnancy, and food safety.</p> <p>Provincial hospitals and communes had at least one staff member trained in women's health (usually more than one), and all staff had a good understanding of women's health issues.</p>
<p>Component B: Human Resource Development</p> <p>Clinical training Primary health care training Secondary medical schools</p>	<p>The project will support medical training opportunities for women. At least 33% of females will participate, or a proportion equivalent to the number of female staff employed at health centers.</p> <p>At least 20% of trained medical doctors will be women.</p> <p>The project will avoid the selection criterion that female trainees must be younger than males.</p> <p>For professional areas where male participation is needed but few men are participating, the project should provide similar support mentioned above for male staff.</p> <p>The project will strengthen capacity on gender equality for staff in participating health facilities.</p> <p>The project will develop communication materials on health</p>	<p>Women's participation in training was high. Priority was given to women and ethnic minority people. Provinces exceeded the gender target of 50% with a total of 52% participation by women in training as follows: 77% (EM 22%) of paramedical (mostly nursing) trainees; 57% (EM 21%) of primary health care trainees; 48% (EM 9%) of IEC trainees; 29% (EM 282%) of postgraduate doctors trained; and 30% (EM 34%) of doctors in refresher training.</p> <p>Women's participation in management training modules varied. Women made up 32% (EM 3%) of provincial staff trained in planning and management, 38% (100%) of those trained in financial management, 40% female (EM 4%) district staff trained in planning and financial management. 42% females (EM 4%) were trained in</p>

	<p>care, integrating gender equality messages; will encourage the participation of women in the development of health materials; and health promotion materials will focus on the needs and knowledge of men and women.</p> <p>The project will increase the numbers of female medical staff by (a) recruiting more women, and (b) building capacity in gender-specific health areas.</p>	<p>district hospital management and 32% (EM 8%) of commune health workers trained as trainers were women, while 52% (EM 15%) commune health workers received health management training.</p> <p>More attention was needed to address underlying barriers for EMs and women's further participation in high level training modules (missed opportunity).</p> <p>The project reduced the burden of care for women when looking after sick family members in hospital due to food and travel allowances.</p> <p>Patients' confidence in hospital staff and services increased.</p> <p>The PMUs had a staff member with responsibility for gender.</p> <p>A large number of women participated in the development and distribution of IEC.</p> <p>IEC materials were displayed prominently in all hospitals and health centers. A range of distribution methods were used to target people with different literacy levels.</p> <p>There was good collaboration with VWU members experienced with delivery of IEC messages.</p> <p>Female health care staff became more confident about their jobs due to the training received.</p> <p>All construction contracts included a requirement for contractors to ensure workers received HIV training, but it is unclear (not followed-up) whether this was actually undertaken.</p>
<p>Component C: Strengthening Financing and Management</p>	<p>The PPMUs will have at least one female member trained in gender. Gender capacity building will be provided to project implementation staff as needed.</p> <p>A domestic social development specialist will be employed on the project for 6 person-months.</p> <p>Sex-disaggregated data will be included in the reporting system.</p> <p>Project implementers will ensure enough financial resources for activities that promote gender equality. Project implementers will ensure equality between males and females in recruitment, priority given for ethnic minority women.</p>	<p>Men and women were aware of their entitlements under Decision 139 on free health care. Outreach work was undertaken successfully in communities.</p> <p>Gender training was undertaken at the PPMU level. PPMUs had a gender focal point with responsibility for implementing the GEMAP.</p> <p>Sex-disaggregated data was collected on women's participation in training was collected regularly, but not in terms of outcome indicators, i.e. service utilization and health improvements.</p> <p>The project gender adviser was in place to assist with GEMAP implementation (a long-term project</p>

	<p>The midterm review will consider the gender-specific challenges and concerns in accessing appropriate health services.</p> <p>Progress reports will include a section on gender, highlighting any changes in access and utilization of health care by women and men. The section might also include observations on the quality of training and the appropriateness of equipment for women and men, especially from ethnic minority groups. Issues pertaining to affordability and appropriateness of health services, as well as care rendered, will be recorded and included.</p>	<p>gender adviser could have enhanced results).</p> <p>The ADB resident mission gender specialist assisted with the development of the GEMAP during project implementation and assisted the project gender adviser to review and adjust targets and monitor the GEMAP.</p>
--	--	--

V. Women's Involvement

13. Specific attention to gender issues in several project activities led to an increase in women's access to health services and many practical benefits that are likely to bring about significant improvements in women's health status. Firstly, reduced distance to health facilities and better services meant that more women were able to be treated in hospitals. New facilities and equipment—such as obstetric and paediatric wards and ultrasound machines—and upgraded facilities greatly strengthened the capacity of the hospitals to better respond to the needs of women and children, who made up a very high proportion of patients. There were better facilities for mothers and expecting mothers, including separate delivery rooms and separate toilets for women. New canteens provided patients and their families with food. The project's considerable investment in training medical staff is also likely to have had a positive impact on the delivery of improved health services to women and children. Provincial hospitals and communes had at least one staff member trained in women's health. All staff interviewed had a good understanding of women's health issues. Women made up a large percentage of health workers and benefited from training relative to their employment levels. Provinces exceeded the gender target of 50% participation of women in training as a whole. Selection criteria for training gave priority to women and ethnic minority people. Female health care staff interviewed said they felt more confident about their jobs as a result. The health care fund for the poor component was successful at addressing non-medical barriers to women's access to health services, such as the high opportunity cost of seeking care due to lack of time and money.

VI. Conclusion and Recommendation

14. Overall, the Project did well in female participation in training, service delivery and IEC activities. As a result more women (and children) benefited from better services. On the other hand the Project could have paid more attention to recruitment of more women in the PPMUs, collected more and regular sex-disaggregated outcome data and paid attention to women's role in the sector in general. The low participation of EM in certain activities is to be understood from their low schooling background and social-cultural barriers that need to be further understood and addressed.

CONSULTING SERVICES AT APPRAISAL AND UTILIZED
(Person-months)

Description	Appraisal	Actual	Percent
A. Upgrading Facilities and Equipment			
International architect	2	0	0%
International equipment and procurement specialist	6	0	0
National architecture and civil works specialist	209	68.5	33%
National equipment and procurement specialist	30	56	187%
National planning and procurement specialist		30	-
B. Human Resources Development			
National training coordination group specialist	0	61.5	-
C. Management and Financing			
International health economist	12	11	92%
International public health expert-quality of care	12	12	100%
National health financing expert	324	84	26%
National M&E consultant for HCFP	-	61	-
National training for HCFP consultant	-	23	-
National planning for HCFP consultant	-	26	-
National health economist consultant	-	84	-
National consultant on primary health care	-	7	-
National communication consultant	-	8	-
Training consultant on Health management	-	3	-
National M&E consultant	-	3	-
National disbursement consultant	-	46	-
National social development specialist	6	-	0%
National environment specialist	4	-	0%
Total	605	500	83%

ECONOMIC ANALYSIS

A. Background

1. The Project aimed to improve the equity and efficiency of the health care system in the Central Highlands, thus contributing to improved prospects for growth, quality of life, and poverty reduction. Health service utilization is lower in this region due to a number of demand and supply constraints. On the demand side, economic and social barriers prevent poor people using healthcare services. The region is noted for high poverty headcounts and a large number of ethnic minorities residing in low density, scattered communities.

Table A10.1: Source of funding for a treatment episode for patients without or lack of money for payment of health fees by method, project/non project provinces and income quintile

	2004 VHLSS		2006 VHLSS		2008 VHLSS		% Change 2004-2008	
	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces
All								
Sold products made by the household	11%	6%	9%	5%	6%	3%	-45%	-52%
Sold assets	2%	2%	1%	2%	3%	1%	40%	-59%
Non-interest borrowing	22%	24%	14%	17%	23%	17%	6%	-27%
Loan with interest	16%	18%	10%	12%	12%	10%	-24%	-41%
Received exemption from hospital	7%	4%	1%	3%	0%	2%	-98%	-56%
Health insurance ^a	4%	22%	23%	36%	27%	52%	534%	137%
Others	4%	12%	4%	6%	5%	11%	12%	-9%
Quintile 5								
Sold products made by the household	11%	4%	19%	4%	3%	1%	-70%	-79%
Sold assets	17%	0%	0%	2%	7%	0%	-62%	0%
Non-interest borrowing	42%	9%	27%	8%	34%	5%	-18%	-49%
Loan with interest	5%	20%	15%	6%	14%	3%	168%	-85%
Received exemption from hospital	1%	1%	0%	1%	0%	1%	-100%	-50%
Health insurance	14%	53%	27%	72%	37%	79%	158%	49%
Free health care certificate	5%	2%	10%	4%	5%	1%	0%	-55%

^a Health insurance refers to whether people had a health insurance to pay for their treatment costs.

Source: VHLSS. 2004, 2006 and 2008

2. The Project has supported implementation and management of the piloting of the Government's Health Care Fund for the Poor (HCFP under decision 139) by subsidizing transport, food and treatment costs, along with strengthening the health system's information, education, and communication capacity. Ethnic minorities have been targeted by delivering messaging in local languages, developing IEC using participatory approaches and ensuring that ethnic minorities and women are well represented in staffing and training programs. It is evident that the use of health insurance to fund treatment has increased to a much greater extent in

quintile five (poorest members of community) users of health services in project provinces when compared to non-project provinces (Table above). The government did not provide insurance previously, but will use the outcome of the pilot to do so in future by changing the health care financing and Health Insurance laws.

3. Total expenditure by the HCFP was estimated to increase health care spending and decrease out-of-pocket expenses. Estimates of expenditure impacts in the loan proposal suggest that the cost of HCFP is more than the cost savings. Results of the VHLSS show that health care expenditure in the Central Highlands has increased by a far greater amount than in the non-project provinces. For the quintile 5 users of health services, their expenditure has increased by 149% between 2004 and 2009, compared to 53% for non-project provinces. While an increase could be considered negatively, it shows however that the target group started using the services more and with the assistance of the HCFP had to pay less for the services, leaving them less poor in the end. The Government is considering national subventions to pay for the increase in health care expenditures.

Table A10.2: Average healthcare expenditure per person having treatment in the past 12 months by type of treatment, urban rural, region, income (VND)

	2004 VHLSS		2006 VHLSS		2008 VHLSS		% Change 2004–2008	
	Project provinces	Non-project provinces	Project province	Non-project provinces	Project provinces	Non-project provinces	Project provinces	Non-project provinces
All								
Total	463	566	537	521	1061	922	129%	63%
Inpatient	1294	1369	1060	1491	3025	2403	134%	76%
Outpatient	257	298	383	273	611	498	138%	67%
Quintile 5								
Total	1265	1488	1251	1162	3156	2282	149%	53%
Inpatient	5545	4190	1617	3090	7399	6871	33%	64%
Outpatient	499	653	1006	578	1616	1163	224%	78%

Source: VHLSS. 2004, 2006 and 2008.

B. Project Costs and Benefits

4. The cost-effectiveness analysis for the Project follows the method outlined in *ADB's Guidelines for the Economic Analysis of Projects*.¹ The period of analysis covers 20 years and is in constant 2011 dollar prices.² Health benefits are quantified using disability adjusted life years (DALYs)³ averted as the result of improved health services. Key assumptions include:

(i) **Disability Adjusted Life Years.** At appraisal it was estimated that approximately 280 disability adjusted life years per 1000 people were lost in the Central Highlands compared to 180 per 1000 as a national average for Viet Nam.⁴ The higher rate reflects the more substantial burden of disease in this area due to low health status of the large poor population and

¹ Bloom, E. and Choynowski, P. (2003) *Economic Analysis of Health Projects: A Case Study in Cambodia*, ERD Technical Note No. 6, ADB, Manila and P. A. Musgrove (2003) *Health Economics in Development*, November 2003 by World Bank.

² Cost-effectiveness analysis is based on the approach outlined in World Bank (1993).

³ The disability-adjusted life year (DALY) is an indicator of the time lived with a disability and the time lost due to premature mortality.

⁴ Burden of disease is based on Viet Nam National Health Survey 2001–02.

inadequate health infrastructure. The Project helped reduce this burden through investing in health infrastructure, quality improvement of health staff and providing funds for the poor to increase access to health services (measured by illness in last month in the VHLSS) and decreased infant mortality rates. The decrease in illness was 10% higher in province provinces when compared to non-project provinces between 2004 and 2009. If only a 5% decrease in disability adjusted life years could be estimated for project impact, then a total of 14 DALYs per 1000 people have been averted on an annual basis.

(ii) **Costs.** The costs considered in this analysis include project capital and recurrent costs. While the project capital costs are known, recurrent costs during and after the project period are difficult to estimate with certainty. For the purposes of the analysis it is assumed that recurrent costs are 5% of cumulative investment costs.

(iii) **Discount rate.** The economic opportunity cost of capital was assumed to be 3%. Most health cost-effectiveness analyses tend to use 3% as a discount factor.

C. Evaluation Results

5. Using cost-effectiveness analysis DALY benefits are compared to the investment and on-going recurrent costs of the Project. The cost per DALY averted is estimated to be \$43. The World Health Organization (WHO) considers a health intervention to be cost-effective if it averts a DALY at a cost below three times the per-capita gross income where the investment is being made. In the case of Viet Nam, per capita gross income was about nine hundred dollars per capita in 2008.⁵ The Project is estimated to be highly cost-effective as \$43 is less than per capita income of nine hundred dollars⁶ nationally and six hundred dollars per capita at regional level.

⁵ ADB (2010). Key Indicators for Asia and the Pacific 2010. Derived from World Development Indicators.

⁶ When compared to standard thresholds for maternal and child interventions in the region, the Project is also cost-effective. For example, in the WHO Western Pacific region, the cost effectiveness of a standard early new born care package is estimated to be \$762 per DALY averted. http://www.who.int/choice/results/mnh_wprob/en/index.html

Table A10.3: Cost-effectiveness Analysis

Year	DALYs Averted	Invest Cost	Recurrent Cost	Total Cost	NPC (2011)	NP DALYs (2011)	CER
	Years	US\$m	US\$m	US\$m	US\$m	million	ratio
2004	321	0.1	0.0	0.1	0.11	0.00	272
2005	3,208	0.8	0.1	0.9	1.04	0.00	272
2006	6,417	1.6	0.1	1.7	2.02	0.01	272
2007	16,042	4.0	0.4	4.4	4.91	0.02	272
2008	61,600	4.1	0.4	4.5	4.87	0.07	133
2009	61,600	4.8	0.4	5.2	5.56	0.07	114
2010	61,600	0.6	1.6	2.2	2.31	0.06	92
2011	61,600	-	1.6	1.6	1.60	0.06	78
2012	61,600	-	1.6	1.6	1.55	0.06	69
2013	61,600	-	1.6	1.6	1.51	0.06	63
2014	61,600	-	1.6	1.6	1.46	0.06	58
2015	61,600	-	1.6	1.6	1.42	0.05	55
2016	61,600	-	1.6	1.6	1.38	0.05	52
2017	61,600	-	1.6	1.6	1.34	0.05	50
2018	61,600	-	1.6	1.6	1.30	0.05	48
2019	61,600	-	1.6	1.6	1.26	0.05	47
2020	61,600	-	1.6	1.6	1.23	0.05	45
2021	61,600	-	1.6	1.6	1.19	0.05	44
2022	61,600	-	1.6	1.6	1.16	0.04	43
2023	61,600	-	1.6	1.6	1.12	0.04	43
	1,011,588	16.06	23.74	39.80	38.34	0.90	

References

Fox-Rushby, J.A. (2002), Disability Adjusted Life Years (DALYs) for Decision Making?: an overview of the literature, Office of Health Economics, London 172 pp

Fox-Rushby JA and Hanson K. (2001) Calculating and presenting disability adjusted life years (DALYs) in cost-effectiveness analysis. *Health Policy Planning*. 16(3):326–31

World Bank, (1993) Investing in Health. The World Development Report 1993. World Bank, Washington DC

WHO (2010) Choosing Interventions that are Cost Effective (WHO-CHOICE) – country estimates, <http://www.who.int/choice/country/en/index.html>

OVERALL ASSESSMENT

Criterion	Weight (%)	Definition	Rating Description	Rating Value
1. Relevance	20	Relevance is the consistency of a project's impact and outcome with the government's development strategy, the Asian Development Bank's lending strategy for the country, and the Asian Development Bank's strategic objectives at the time of approval and evaluation. It is also concerned with the adequacy of the design.	Relevant	2.0
2. Effectiveness	30	Effectiveness describes the extent to which the outcome, as specified in the design and monitoring framework, either as agreed at approval or as subsequently modified, has been achieved	Effective	2.0
3. Efficiency	30	Efficiency describes how economically resources have been converted to results. It uses the economic internal rate of return or cost effectiveness of the investment or other indicators as a measure as well as the resilience to risk of the net benefit flows over time.	Efficient	2.0
4. Sustainability	20	Sustainability considers the likelihood that human, institutional, financial, and other resources are sufficient to maintain the outcome over its economic life	Likely	1.5
Overall Assessment (weighted average of above criteria)		Successful Highly Successful: Overall weighted average is greater than or equal to 2.7. Successful: Overall weighted average is greater than or equal to 1.6 and less than 2.7. Partly Successful: Overall weighted average is greater than or equal to 0.8 and less than 1.6. Unsuccessful: Overall weighted average is less than 0.8		1.9