Completion Report

Project Numbers: 36672, 37604, 38017
Grant Numbers: 0025-CAM, 0026-LAO, and 0027-VIE
October 2013

Greater Mekong Subregion Regional Communicable Diseases Control Project

Asian Development Bank

CURRENCY EQUIVALENTS

CAMBODIA

Currency Unit – riel (KR)

		At Appraisal (14 Oct 2005)	At Project Completion (30 June 2011)
KR1.00	=	$0.000243	$0.000243
$1.00	=	KR4,120	KR4,122

LAO PDR

Currency Unit – kip (KN)

		At Appraisal (14 Oct 2005)	At Project Completion (30 June 2010)
KN1.00	=	$0.000092	$0.000121
$1.00	=	KN10,855	KN8,262

VIET NAM

Currency Unit – dong (D)

		At Appraisal (14 Oct 2005)	At Project Completion (30 June 2010)
D1.00	=	$$0.000063	$0.000052
$1.00	=	D15,903	D19,065

ABBREVIATIONS

ADB	–	Asian Development Bank
AHI	–	avian and human influenza
AIDS	–	acquired immunodeficiency syndrome
AOP	–	annual operational plan
APSED	–	Asia Pacific Strategy for Emerging Diseases
ASEAN	–	Association of South East Asian Nations
CDC	–	communicable diseases control
CDC2	–	Second GMS Regional Communicable Diseases Control Project
CDCD	–	Communicable Diseases Control Department, Cambodia
CLV	–	Cambodia, Lao PDR, and Viet Nam
DPF	–	Department of Planning and Finance, Lao PDR
EMP	–	ethnic minority plan
GAP	–	gender action plan
GDPM	–	General Department of Preventive Medicine, Viet Nam
GMS	–	Greater Mekong Subregion
HIV	–	human immunodeficiency virus
HRD	–	human resource development
HSSP	–	Health Sector Support Program, Cambodia
IHR	–	International Health Regulations
IMCI	–	integrated management of childhood illnesses
IMR	–	infant mortality rate
Lao PDR	–	Lao People’s Democratic Republic
MDG	–	Millennium Development Goals
MOF	–	Ministry of Finance

MOH	–	Ministry of Health
MOU	–	memorandum of understanding
NCLE	–	National Center for Laboratory and Epidemiology, Lao PDR
NCM	–	National Center for Malaria, Cambodia
NGO	–	non-government organization
NIEDO	–	National Infections and Emerging Diseases Office, Lao PDR
NIHE	–	National Institute of Hygiene and Epidemiology, Viet Nam
NIPH	–	National Institute of Public Health, Cambodia
NTD	–	neglected tropical disease
PCR	–	project completion report
PMU	–	project management unit
PRC	–	People's Republic of China
R-PPTA	–	regional project preparatory technical assistance
RCU	–	regional coordination unit
RRT	–	rapid response team
RSC	–	Regional Steering Committee
SARS	–	severe acute respiratory syndrome
SDMG	–	service delivery monitoring group
SGIA	–	second generation imprest account
SOP	–	standard operating procedure
U5MR	–	under-five mortality rate
VCT	–	voluntary counseling and testing
VHV	–	village health volunteer
WHO	–	World Health Organization
WPRO	–	Western Pacific Regional Office of WHO

NOTES

(i) The fiscal year (FY) of the Government of Lao PDR ends on 30 September, and that of the Governments of Cambodia and Viet Nam on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2003 ends on 30 September 2003 for Lao PDR.

(ii) In this report, "$" refers to US dollars.

Vice President	S. Groff, Operations 2
Director General	J. Nugent, Southeast Asia Department (SERD)
Director	L. Gutierrez, Human and Social Development Division, SERD
Country Directors	E. Sidgwick, Cambodia Resident Mission, SERD
	B. Frielink, Office-in-Charge, Lao Resident Mission, SERD
	T. Kimura, Viet Nam Resident Mission, SERD
Team leader	V. de Wit, Lead Health Specialist, SERD
Team member	R. Roque-Villaroman, Associate Project Analyst, SERD

CONTENTS

BASIC DATA
(Grant No. 0025-CAM)

A. Grant Identification

1.	Country	Cambodia
2.	Grant Number	0025-CAM (SF)
3.	Project Title	Greater Mekong Subregion Regional Communicable Diseases Control Project
4.	Borrower	Kingdom of Cambodia
5.	Executing Agency	Ministry of Health, Cambodia
6.	Amount of Grant	$9.0 million equivalent
	Net Grant Amount	$9.0 million equivalent
7.	Project Completion Report Number	PCR: REG 1432

B. Grant Data

1.	Appraisal	
	– Date Started	21 June 2005
	– Date Completed	24 June 2005
2.	Grant Negotiations	
	– Date Started	12 September 2005
	– Date Completed	13 September 2005
3.	Date of Board Approval	21 November 2005
4.	Date of Grant Agreement	27 December 2005
5.	Date of Grant Effectiveness	
	– In Grant Agreement	27 March 2006
	– Actual	7 March 2006
	– Number of Extensions	0
6.	Closing Date	
	– In Grant Agreement	30 June 2010
	– Actual	17 October 2012
	– Number of Extensions	3
7.	Disbursements	

a. Dates

Initial Disbursement	Final Disbursement	Time Interval
30 May 2006	9 January 2012	67 months
Effective Date	**Original Closing Date**	**Time Interval**
7 March 2006	30 June 2010	52 months

b. Amount (US$ million)

Category	Original Allocation	Amount Disbursed	Undisbursed Balance
A. Base Costs			
1. Investment Costs			
a. Civil Works	0.16	0.03	0.13
b. Laboratory and Other Equipment	0.56	0.54	0.02
c. Vehicles	0.39	0.37	0.02
d. System Development	1.00	0.70	0.30
e. Training, Workshops, and Fellowships	2.05	2.32	(0.27)
f. Community Mobilization	1.12	1.87	(0.75)
g. Consulting Services	0.23	0.29	(0.06)
h. Project Management	0.50	0.43	0.07
2. Recurrent Costs			
a. Salaries	0.09	0.08	0.01
b. Supplies	0.82	0.92	(0.10)
c. Communications	0.18	0.06	0.12
d. Vehicle Operations and Maintenance	0.08	0.07	0.01
3. Regional Pool	1.29	1.09	0.20
Total Base Costs	**8.48**	**8.77**	**(0.29)**
B. Contingencies	**0.52**	**0.00**	**0.52**
Total	**9.00**	**8.77**	**0.23***

*Undisbursed balance of $230,582.08 cancelled on 17 October 2012

C. Project Data

1. Financing Plan ($ million)

Cost	Appraisal Estimate	Actual
Borrower Financed	1.98	1.72
ADB Financed	9.00	8.77
WHO	0.27	0.27
Total	11.25	10.76

ADB = Asian Development Bank, WHO = World Health Organization.

2. Project Schedule

Item	Appraisal Estimate	Actual
Date of Contract with Consultants		
First Contract (Individual)	Q2 2006	17 September 2006[a]
Last Contract (Firm)	Q4 2006	1 December 2008[a]
Equipment and Supplies		
First Procurement	Q3 2006	18 April 2007
Last Procurement	Q4 2006	26 October 2010
Other Milestones		
1st Extension of Grant Closing Date	-	16 Aug 2010
2nd Extension of Grant Closing Date	-	18 January 2011
3rd Extension of Grant Closing Date	-	12 July 2011

[a] funded under Regional Pooled Fund.

3. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 7 March 2006 to 31 December 2006	Satisfactory	Satisfactory
From 1 January 2007 to 31 December 2007	Satisfactory	Satisfactory
From 1 January 2008 to 31 December 2008	Satisfactory	Satisfactory
From 1 January 2009 to 31 December 2009	Satisfactory	Satisfactory
From 1 January 2010 to 31 December 2010	Satisfactory	Satisfactory
From 1 January 2011 to 30 June 2011	Satisfactory	Satisfactory

D. Data on Asian Development Bank Missions

Name of Mission[a]	Date	No. of Persons	No. of Person-Days	Specialization of Members [b]
Fact Finding Mission	29 April – 5 May 2005	7	7	a, b, c, d, e, f, g
Appraisal Mission	21–24 June 2005	4	5	a, d, e, f, g
Grant Inception Mission	20–21 June 2006	1	2	h
Grant Review Mission 1	19–21 March 2007	7	3	h, i, j, k, m, n, o
Grant Review Mission 2	19–20 November 2007	4	2	h, j, k, l
Grant Review Mission 3	26–30 May 2008	5	5	h, j, k, l, m
Midterm Review Mission	17–19 November 2008	4	3	h, i, j, k
Grant Review Mission 4	16–17 November 2009	4	2	h, i, j, k
Special Grant Administration	1–3 November 2010	1	3	h
Project Completion Review [c]	19–23 September 2011	3	5	h,i

[a] Some missions were fielded concurrently with other missions.

[b] a = senior health specialist, b = counsel, c = social development specialist, d = consultant/TA team leader, e = social sector/poverty officer, f = epidemiologist/World Health Organization (WHO), g = regional health planning expert, h = lead health specialist, i = assistant/associate project analyst, j = health systems specialist/consultant, k = regional coordinator/consultant, l = gender adviser, m = HIV/AIDS technical adviser/consultant, n = program officer (Regional Coordination Unit [RCU])/consultant, o = dengue specialist (RCU)

[c] The project completion review mission comprised V. de Wit, Lead Health Specialist, Human and Social Development Division (SEHS); C. Chea, Gender Specialist, Cambodia Resident Mission (CARM); and R. Roque-Villaroman, Associate Project Analyst, SEHS.

BASIC DATA
(Grant No. 0026-LAO)

A. Grant Identification

1.	Country	Lao PDR
2.	Grant Number	0026-LAO (SF)
3.	Project Title	Greater Mekong Subregion Regional Communicable Diseases Control Project
4.	Borrower	Lao People's Democratic Republic
5.	Executing Agency	Ministry of Health, Lao PDR
6.	Amount of Grant	$6.0 million equivalent
	Net Grant Amount	$6.0 million equivalent
7.	Project Completion Report Number	PCR: REG 1432

B. Grant Data

1.	Appraisal	
	– Date Started	27 June 2005
	– Date Completed	30 June 2005
2.	Grant Negotiations	
	– Date Started	27 September 2005
	– Date Completed	28 September 2005
3.	Date of Board Approval	21 November 2005
4.	Date of Grant Agreement	16 December 2005
5.	Date of Grant Effectiveness	
	– In Grant Agreement	16 March 2006
	– Actual	7 March 2006
	– Number of Extensions	0
6.	Closing Date	
	– In Grant Agreement	30 June 2010
	– Actual	17 October 2012
	– Number of Extensions	0

7. Disbursements

a. Dates

Initial Disbursement	**Final Disbursement**	**Time Interval**
15 August 2006	8 October 2009	37 months
Effective Date	**Original Closing Date**	**Time Interval**
7 March 2006	30 June 2010	52 months

b. Amount (US$ million)

Category or Subloan	Original Allocation	Last Revised Allocation	Amount Disbursed	Undisbursed Balance
A. Base Costs				
1. Investment Costs				
a. Civil Works	0.04	0.04	0.04	0.00
b. Laboratory and Other Equipment	0.26	0.62	0.65	(0.03)
c. Vehicles	0.21	0.38	0.44	(0.06)
d. System Development	0.41	0.35	0.29	0.06
e. Training, Workshops, and Fellowships	1.25	1.10	1.25	(0.15)
f. Community Mobilization	0.30	0.48	0.64	(0.16)
g. Consulting Services	0.28	0.39	0.14	0.25
h. Project Management	0.45	0.41	0.70	(0.29)
2. Recurrent Costs				
a. Salaries	0.00	0.00	0.00	0.00
b. Supplies	1.46	1.13	0.83	0.30
c. Communications	0.03	0.09	0.06	0.03
d. Vehicle Operations and Maintenance	0.05	0.09	0.10	(0.01)
3. Regional Pool	0.86	0.86	0.78	0.08
Total Base Costs	**5.59**	**5.94**	**5.92**	**0.02**
B. Contingencies	**0.41**	**0.06**	**0.00**	**0.06**
Total	**6.00**	**6.00**	**5.92**	**0.08***

*Undisbursed balance of US$79,885.92 cancelled on 17 October 2012

C. Project Data

1. Project Cost/Financing Plan ($ million)

Cost	Appraisal Estimate	Actual
Borrower Financed	1.32	0.41
ADB Financed	6.00	5.92
WHO	0.18	0.18
Total	**7.50**	6.51

ADB = Asian Development Bank, WHO = World Health Organization.

2. Project Schedule

Item	Appraisal Estimate	Actual
Date of Contract with Consultants		
First Contract (Individual)	Q2 2006	20 June 2006[a]
Last Contract (Individual)	Q4 2006	9 November 2009
Equipment and Supplies Dates		
First Procurement	Q3 2006	8 December 2006
Last Procurement	Q4 2006	9 November 2009
Other Milestones		
Reallocation of Grant Proceeds	-	30 April 2007

[a] funded under Regional Pooled Fund.

3. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 7 March 2006 to 31 December 2006	Satisfactory	Satisfactory
From 1 January 2007 to 31 December 2007	Satisfactory	Satisfactory
From 1 January 2008 to 31 December 2008	Satisfactory	Satisfactory
From 1 January 2009 to 31 December 2009	Satisfactory	Satisfactory
From 1 January 2010 to 30 June 2010	Satisfactory	Satisfactory

D. Data on Asian Development Bank Missions

Name of Mission [a]	Date	No. of Persons	No. of Person-Days	Specialization of Members [b]
Fact Finding Mission	6–11 May 2005	5	6	a, b, c, d, f
Appraisal Mission	27–30 June 2005	4	4	a, d, g, i
Grant Inception Mission	22–24 May 2006	2	3	h, i
Special Grant Administration Mission	22–31 January 2007	1	10	h
Grant Review Mission 1	22–24 March 2007	6	3	h, i, j, k, m, n
Grant Review Mission 2	15–16 November 2007	1	2	h
Grant Review Mission 3	5–8 June 2008	5	4	h, j, k, m, p
Midterm Review Mission	10–14 November 2008	4	5	h, i, j, k
Grant Review Mission 4	19–20 October 2009	3	2	h, i, j, k
Special Grant Administration Mission	4–6 November 2010	1	3	h
Project Completion Review [c]	26–30 September 2011	2	5	h,i

[a] Mission fielded concurrently with other missions.

[b] a = senior health specialist, b = counsel, c = social development specialist, d = consultant/TA team leader, e = social sector/poverty officer, f = epidemiologist/World Health Organization (WHO), g = regional health planning expert, h = lead health specialist, i = assistant/associate project analyst, j = health systems specialist/consultant, k = regional coordinator/consultant, l = gender adviser, m = HIV/AIDS technical adviser/consultant, n = program officer (Regional Coordination Unit [RCU])/consultant.

[c] The project completion review mission comprised V. de Wit, Lead Health Specialist, Human and Social Development Division (SEHS), and R. Roque-Villaroman, Associate Project Analyst, SEHS.

BASIC DATA
(Grant No. 0027-VIE)

A. Grant Identification

1.	Country	Viet Nam
2.	Grant Number	0027-VIE (SF)
3.	Project Title	Greater Mekong Subregion Regional Communicable Diseases Control Project
4.	Borrower	Socialist Republic of Viet Nam
5.	Executing Agency	Ministry of Health, Viet Nam
6.	Amount of Grant	$15.0 million equivalent
	Net Grant Amount	$15.0 million equivalent
7.	Project Completion Report Number	PCR: REG 1432

B. Grant Data

1.	Appraisal	
	– Date Started	13 June 2005
	– Date Completed	16 June 2005
2.	Grant Negotiations	
	– Date Started	5 October 2005
	– Date Completed	7 October 2005
3.	Date of Board Approval	21 November 2005
4.	Date of Grant Agreement	7 April 2006
5.	Date of Grant Effectiveness	
	– In Grant Agreement	6 July 2006
	– Actual	7 July 2006
	– Number of Extensions	0
6.	Closing Date	
	– In Grant Agreement	30 June 2010
	– Actual	17 October 2012
	– Number of Extensions	0

7. Disbursements

a. Dates

Initial Disbursement	Final Disbursement	Time Interval
4 October 2006	17 March 2011	53 months
Effective Date	**Original Closing Date**	**Time Interval**
7 July 2006	30 June 2010	48 months

b. Amount (US$ million)

Category or Subloan	Original Allocation	Amount Disbursed	Undisbursed Balance
A. Base Costs			
1. Investment Costs			
a. Civil Works	0.07	0.04	0.03
b. Laboratory and Other Equipment	2.86	3.53	(0.67)
c. Vehicles	0.63	0.53	0.10
d. System Development	0.23	0.41	(0.18)
e. Training, Workshops, and Fellowships	3.72	3.79	(0.07)
f. Community Mobilization	1.22	1.18	0.04
g. Consulting Services	0.50	0.25	0.25
h. Project Management	0.64	0.79	(0.15)
2. Recurrent Costs			
a. Salaries	0.00	0.00	0.00
b. Supplies	1.49	2.15	(0.66)
c. Communications	0.06	0.04	0.02
d. Vehicle Operations and Maintenance	0.21	0.08	0.13
3. Regional Pool	2.15	1.99	0.16
Total Base Costs	**13.78**	**14.78**	**(1.00)**
B. Contingencies	**1.22**	**0.00**	**1.22**
Total	**15.00**	**14.78**	**0.22***

*Undisbursed balance of US$218,744.46 cancelled on 17 October 2012.

C. Project Data

1. Project Cost/Financing Plan ($ million)

Cost	Appraisal Estimate	Actual
Borrower Financed	4.55	1.90
ADB Financed	15.00	14.78
WHO	0.45	0.45
Total	**20.00**	**17.13**

ADB = Asian Development Bank, WHO = World Health Organization.

2. Project Schedule

Item	Appraisal Estimate	Actual
Date of Contract with Consultants		
First Contract (Individual)	Q2 2006	30 July 2006[a]
Last Contract (Individual)	Q4 2006	1 December 2008
Equipment and Supplies Dates		
First Procurement	Q3 2006	4 January 2008
Last Procurement	Q4 2006	21 May 2010

[a] funded under Regional Pooled Fund.

3. Project Performance Report Ratings

Implementation Period	Ratings	
	Development Objectives	Implementation Progress
From 7 July 2006 to 31 December 2006	Satisfactory	Satisfactory
From 1 January 2007 to 31 December 2007	Satisfactory	Satisfactory
From 1 January 2008 to 31 December 2008	Satisfactory	Satisfactory
From 1 January 2009 to 31 December 2009	Satisfactory	Satisfactory
From 1 January 2010 to 30 June 2010	Satisfactory	Satisfactory

D. Data on Asian Development Bank Missions

Name of Mission [a]	Date	No. of Persons	No. of Person-Days	Specialization of Members [b,]
Fact Finding Mission	12–21 May 2005	6	9	a, b, c, d, f, g
Appraisal Mission	13–16 June 2005	7	4	a, b, d, f, g, p, q,
Grant Inception Mission	16–19 May 2006	2	4	h, i
Grant Review Mission 1	26–31 March 2007	6	6	h, i, j, k, m, n
Grant Review Mission 2	22–23 November 2007	6	2	h, i, j, k, r, s
Grant Review Mission 3	1–4 June 2008	3	4	h, j, k, m, n, r, t
Midterm Review Mission	1–3 December 2008	7	3	h, j, k, n, q, r, u
Grant Review Mission 4	5–8 October 2009	4	4	h, i, j, k
Special Grant Administration Mission	1–3 November 2010	1	3	h
Project Completion Review [c]	10–13 October 2011	3	4	e, h, i

[a] Some missions were fielded concurrently with other missions.

[b] a = senior health specialist, b = counsel, c = social development specialist, d = consultant/TA team leader, e = social sector/poverty officer, f = epidemiologist/World Health Organization (WHO), g = regional health planning expert, h = lead health specialist, i = assistant/associate project analyst, j = health systems consultant, k = regional coordinator, m = HIV/AIDS expert, n = regional program coordinator, p = social sector specialist, q = administrative assistant, r = accountant, s = infectious disease control expert/WHO, t = infection control expert/WHO, u = program administrator/WHO.

[c] The project completion review mission comprised V. de Wit, Lead Health Specialist, Human and Social Development Division (SEHS), R. Roque-Villaroman, Associate Project Analyst (SEHS), and N. Tuyen, Social Sector Officer, Viet Nam Resident Mission.

I. PROJECT DESCRIPTION

1. The Greater Mekong Subregion (GMS) Regional Communicable Diseases Control Project was designed to develop the capacity to contain emerging diseases and reduce the burden of common neglected diseases in Cambodia, the Lao People's Democratic Republic (Lao PDR), and Viet Nam (the CLV countries).[1] The 4-year, $38.75 million project was supported by a $30 million grant from the Asian Development Bank (ADB), $0.9 million in cofinancing from the World Health Organization (WHO), $4.55 million from the Government of Viet Nam, $1.98 million from the Government of Cambodia, and $1.32 million from the Government of the Lao PDR. The expected project outcomes were (i) timely and adequate control of epidemics likely to have a major impact on public health and the economy in the region; (ii) improved coverage of prevention and care of communicable diseases in vulnerable populations; and (iii) improved know-how, policies, standards, and coordination among countries to improve communicable diseases control (CDC), including for HIV/AIDS, through regional cooperation. The project prioritized 26 provinces including 5 in Cambodia, 6 in the Lao PDR, and 15 in Viet Nam,[2] but also supported disease outbreak control nationwide. The project aimed for a 15% reduction in communicable diseases in the targeted provinces and more for certain specific infections, thereby helping the CLV countries make progress toward the Millennium Development Goals (MDGs) of reducing the child mortality rate and containing HIV/AIDS and other infections. The updated design and monitoring framework is in Appendix 1.

2. In each country, the Ministry of Health (MOH) was the executing agency. Implementation was undertaken by MOH departments, the 26 targeted provinces, and 9 national institutions. To facilitate the flow of funds for regional activities, $4.3 million, or 11% of the project funds, was administered by ADB as a regional pooled fund[3] and managed by a regional coordination unit (RCU). ADB provided WHO with $1.6 million from the pooled fund, which, combined with $0.9 million of WHO, was used to engage international experts for the control of emerging diseases.

II. EVALUATION OF DESIGN AND IMPLEMENTATION

A. Relevance of Design and Formulation

3. **Project relevance**. The project was highly relevant at both appraisal and completion. Outbreaks of newly emerging diseases, such as the severe acute respiratory syndrome (SARS) in 2003 and avian and human influenza (AHI) in 2004, can have a major health and economic impact if not controlled quickly. As was evident in the SARS outbreak, even relatively small epidemics have major economic costs. AHI has probably reduced GDP by about 0.5% in Viet Nam,[4] and had a major impact on small farmers, as Viet Nam had to cull almost a quarter of its national poultry stock. Also, dengue fever has emerged as a major cause of morbidity and mortality in the GMS, as well as malaria drug resistance and substandard or fake drugs. Outbreaks of cholera and other highly infectious diseases can spread rapidly along highways. The HIV epidemic has spread to all corners of the region. Among the most vulnerable groups are mobile people, migrants, poor women and children, ethnic minorities, and remote villagers.

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[1] ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Grants to the Kingdom of Cambodia, the Lao People's Democratic Republic, and the Socialist Republic of Viet Nam for the Greater Mekong Subregion Regional Communicable Diseases Control Project.* Manila.

[2] The list of targeted provinces is in Appendix 2. One of the targeted provinces, Ha Tay, was merged with Hanoi City.

[3] Pooled in this instance does not mean an actual joint fund, but virtual pooling of funds from the three grants.

[4] ADB. 2005. Potential Economic Impact of an Avian Flu Pandemic on Asia. Manila.

4. Control of these infectious diseases is highly dependent on disease control efforts in neighboring countries. Combined with national capacity building, a regional approach can draw attention to and address "weak links." However, funding for regional public health goods in the GMS has been low, even though they contribute to the attainment of global and national goals.

5. As voiced at several GMS summits,[5] GMS governments consider regional public health security a top priority. The project was also in line with ADB's Strategy 2020,[6] Operational Plan for Health,[7] GMS Strategic Framework,[8] and country partnership strategies for Cambodia, the Lao PDR, and Viet Nam. These documents emphasize the impact of health on poverty, the extent of poverty-related illnesses, the poor quality of health care in rural areas, the need to mitigate risks arising from increased mobility, and CDC as a regional public good.[9]

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6. Ministries of health in CLV countries repeatedly stated that the project was highly appropriate, as it focused on important gaps in services and funding. The project supported the roll-out of WHO's International Health Regulations (IHR, 2005)[10] and Asia Pacific Strategy for Emerging Diseases (APSED, 2005),[11] by establishing surveillance and response systems, improving community preparedness, and strengthening laboratory services and regional cooperation in disease control. It also provided funding to address dengue and neglected tropical diseases (NTDs), which impose a heavy disease burden on women, children, and the poor, and for which low-cost interventions are available. Ministries of health requested more support, given regional CDC challenges and limited funding from other sources. Thus, ADB now supports the second GMS Regional CDC project (CDC2).[12]

7. The project was fully in line with country plans and policies. In Cambodia, the project was implemented under the umbrella of the Health Sector Support Program (HSSP) supported by ADB and development partners[13] to implement the National Health Strategic Plan (2003–2007).[14] In the Lao PDR, the project complemented the investments of ADB and others in the health system under the National Sixth Health Development Plan (2006–2010).[15] In Viet Nam, it helped roll out the Preventive Medicine Strategy (2006–2010) with a Vision to 2020,[16] and other relevant policies under the National Health Sector Development Plan (2006–2010).[17]

8. **Project formulation** was satisfactory. Regional projects are challenging in terms of bringing all stakeholders together on a common platform, and dealing with different

[5] http://www.gmsec.org/Item/29.aspx
[6] ADB. 2008. *Strategy 2020: Working for an Asia and Pacific Free of Poverty*. Manila.
[7] ADB. 2008. *An Operational Plan for Improving Health Access and Outcomes Under Strategy 2020*. Manila.
[8] ADB. *Greater Mekong Subregion Strategic Framework (2002–2012).* Manila .
[9] ADB. *Cambodia: Country Strategy and Program (2005–2008); Lao PDR: Country Strategy and Program (2003–2005); Viet Nam: Country Strategy and Program (2002–2004)*; Manila.
[10] WHO. 2005. *International Health Regulations*. Geneva.
[11] WHO, South and East Asia Regional Office and Western Pacific Regional Office. 2005. *Asia Pacific Strategy for Emerging Diseases*. Manila.
[12] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Grants to the Kingdom of Cambodia, the Lao People's Democratic Republic, and the Socialist Republic of Viet Nam for the Second Greater Mekong Subregion Regional Communicable Diseases Control Project*. Manila.
[13] ADB. 2010. *Completion Report: Health Sector Support Project in Cambodia*. Manila.
[14] Ministry of Health (MOH), Cambodia. 2003. *National Health Strategic Plan (2003–2007).* Phnom Penh.
[15] MOH, Lao People's Democratic Republic. 2006. *National Sixth Health Development Plan (2006–2010).* Vientiane.
[16] MOH, Viet Nam. *Decision 255/2006/TTG-QD on Preventive Medicine Strategy (2006–2010) with a Vision to 2020*. Hanoi.
[17] MOH, Viet Nam. 2006. National Health Sector Development Plan *(2006–2010). Hanoi*.

administrations. Project preparatory technical assistance[18] included three regional workshops for participatory planning, and extensive consultations with beneficiaries and partners.

9. **Changes in scope**. The project design allowed for nationwide support for outbreak control. Given a shortage of other funding sources, ministries of health opted to stretch available funds to cover outbreak control. The MOH of Lao PDR was granted a minor change of scope to expand preventive disease control activities for emerging diseases, HIV/AIDS, and dengue to four other provinces. Another minor change of scope was to provide laboratory equipment for the Pasteur Institute. Complementing this and to help cover the financial gap, ADB provided a $250,000 emergency fund under a regional project.[19] In Viet Nam, additional laboratory equipment was purchased for the Institute of Hygiene and Epidemiology in the Central Highlands, and the three institutes of malaria, parasitology, and epidemiology. In Cambodia, the project was extended by one year to use grant savings for outbreak response and dengue control until the start of CDC2. Targeted provinces are listed in Appendix 2.

B. Project Outputs

1. Component 1: Strengthening National Surveillance and Response Systems

10. Component 1 provided support for strengthening (i) institutional structures, partnerships, and policies; (ii) outbreak preparedness and surveillance and response systems; (iii) laboratory services; and (iv) human resource development (HRD).

11. **Institutional structures, partnerships, and policies.** In Cambodia, MOH developed a crisis center in the Communicable Diseases Control Department (CDCD). In Lao PDR, MOH established the National Infections and Emerging Diseases Office (NIEDO). In Viet Nam, MOH established a national focal point and crisis center for surveillance and response in the General Department of Preventive Medicine (GDPM). Practical cooperation for major outbreaks mainly occurs through provincial cross-border cooperation. Following the SARS and AHI outbreaks, collaborative mechanisms for cooperation with other sectors were also established. In each country, these are active during outbreaks and otherwise limited to information exchange.

12. The project (i) supported the formulation and roll-out of WHO strategic frameworks for emerging diseases, dengue, NTDs, and laboratory services; (ii) helped implement APSED 2005, in particular for surveillance and response, and prepare for APSED 2010;[20] (iii) contributed to the Asia-Pacific Dengue Strategic Plan[21] and improvements in vector control, outbreak control, and case management;[22] (iv) supported WHO in preparing a strategic framework for the control of NTDs;[23] and (v) contributed to the strategic framework for laboratory services.[24] Implementation of these strategies at the country level is continuing under CDC2.

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[18] ADB. 2004 TA 6194-REG. *Project Preparatory Technical Assistance for the Greater Mekong Subregion Communicable Diseases Control Project*. Manila.
[19] ADB. 2004. *Report and Recommendation of the President to the Board of Directors: Proposed Regional Control of Avian Influenza and Other Emerging Diseases in Asia and the Pacific*. Manila.
[20] World Health Organization (WHO), Western Pacific Regional Office (WPRO). 2010. *Asia Pacific Strategy for Emerging Diseases (APSED 2010).* Manila.
[21] WHO, WPRO. 2008. *Asia-Pacific Dengue Strategic Plan (2008–2015).* Manila.
[22] ADB. 2009. TA 7268-REG: *Regional Public Goods for Health: Combating Dengue in ASEAN*. Manila.
[23] WHO, WPRO. 2012. *Regional Action Plan for Neglected Tropical Diseases (2012–2016).* Manila
[24] WHO,WPRO. *Asia-Pacific Strategy for Strengthening Health Laboratory Services (2010–2015).* Manila

13. The project supported CDC legislation in the Lao PDR and Viet Nam, while in Cambodia this is being done under CDC2. In Lao PDR, legislation included a national strategy for surveillance and response, border crossing guidelines, and a five-year National Avian Influenza Control and Pandemic Preparedness Plan, 2006–2010. In Viet Nam, the legislation included the Law on Prevention and Control of Infectious Diseases;[25] decrees on border health quarantine, biosafety, and health isolation; and a regulation on the use of vaccines and immunological products. Studies were conducted on legal preparedness for responding to disasters and communicable disease emergencies.[26] Legal and regulatory documents prepared in Viet Nam with the support of the project are listed in Appendix 3.

14. **Strengthening surveillance and response systems and preparedness.** Surveillance and response systems have improved substantially in the 26 provinces, with better outbreak reporting, and more timely investigation and control by rapid response teams (RRTs). Outbreak reporting has speeded up following the training of community members, the introduction of rumor and zero reporting, and the use of mobile phones. Provincial reporting systems were improved through the collection of disease reports from communities and health facilities. However, real time monitoring, as done in the People's Republic of China (PRC) and Thailand, is still hampered by limited internet connectivity. The provision of project emergency funds at provincial level contributed to the control of outbreaks of AHI, dengue, cholera, typhoid, anthrax, diarrheal diseases, and food poisoning. Provincial, hospital, and community preparedness plans have been developed to facilitate a quick response to any outbreaks, including influenza. However, the capacity to handle a surge in hospital patients in case of an epidemic is lacking, as was seen during the mild H1N1 (swine flu) epidemic in 2009. Outbreak simulation exercises were undertaken and shown to be an important learning tool. Border entry point inspection and quarantine services have also been improved through training and the provision of equipment. One regional technical forum on surveillance and response systems was held in Guilin, and two other forums included this topic, in addition to national workshops.

15. **Strengthening laboratory services.** Essential laboratory equipment was purchased for national and provincial laboratories, and complemented an improvement in standard operating procedures (SOPs), quality assurance, and biosafety measures. A 2011 survey of laboratory services in Cambodia and the Lao PDR found that progress had been made, but that suitable laboratory facilities were often lacking. In Viet Nam, laboratory facilities are generally better.

16. **Human resource development.** Staff responsibilities and in-service training needs were identified within each program, including for APSED, integrated management of childhood illnesses (IMCI), dengue, NTDs, and laboratory services. Fellowships were provided for hospital and laboratory services. In Viet Nam, a field epidemiology training program was developed. Pre- and post-testing was routinely carried out, and showed encouraging improvement in knowledge and skills. However, training was rather ad hoc. A more systematic approach to provincial capacity building through in-service training is being developed under CDC2. The summary of training programs, workshops, and studies is in Appendix 4.

2. Component 2: Improving CDC for Vulnerable Groups

17. Component 2 included (i) strengthening the capacity for integrated CDC in 26 provinces with a major burden of communicable diseases and large vulnerable groups; (ii) controlling

[25] Government of Viet Nam. 2007. *Law on Prevention and Control of Infectious Diseases*. Hanoi.
[26] International Federation of Red Cross and Red Crescent. 2009. *Legal Preparedness for Responding to Disasters and Communicable Disease Emergencies*. Study reports for Cambodia, Lao PDR, and Viet Nam. Bangkok.

priority endemic diseases in priority locations; and (iii) improving the continuum of care for HIV/AIDS control in particular “hotspots,” and regional coordination of HIV/AIDS control in mobile high-risk populations.

18. **Mainstream IMCI and CDC.** The subcomponent included (i) mainstreaming CDC in provincial planning and management; (ii) providing management tools for integrating CDC in provincial health service delivery; and (iii) providing technical, supervision, and quality assurance support for implementation. Cambodia and the Lao PDR succeeded in mainstreaming CDC in the provincial annual operational plans (AOPs). While Viet Nam also adopted provincial AOPs, CDC continues to be managed through the preventive medicine program. Based on international IMCI practices, efforts were made to provide improved and integrated child care through the use of child care protocols. In Cambodia, the CDCD, which is responsible for IMCI, trained and supervised about a quarter of all clinical staff in the five targeted provinces. In the Lao PDR, MOH developed a community IMCI approach for village health volunteers (VHVs) and trained and equipped VHVs in the six targeted provinces. In Viet Nam, the National Institute of Hygiene and Epidemiology (NIHE) piloted IMCI in a cluster of villages in five targeted provinces. The comprehensive child care approach led to improved child diagnostics, as demonstrated by NIHE. In CLV countries, the IMCI has been adopted as good practice for child care, but scaling up is difficult due to training capacity and time constraints.

19. **Interventions for priority diseases for poor communities in border areas.** Dengue control was particularly successful in improving case management, resulting in a reduced case fatality rate in all the CLV countries. Dengue surveillance and outbreak response also improved. Furthermore, outbreaks of dengue led to a strong control response in each of the three countries. However, prevention of dengue, in particular through vector control, remains a challenge as it involves motivating the public to take preventive measures. Dengue education programs were carried out using schools, mobile teams, campaigns, education materials, training, and T-shirts, but it is not clear how effective these have been, even though pre-and post-testing showed a positive result. While dengue prevalence remains high and continues to spread along economic corridors into rural areas, without project support outbreaks could have become more serious. The three countries are currently reviewing new know-how and technologies for dengue control and are updating their dengue control strategy.

20. NTD control focused on Japanese encephalitis, soil transmitted helminthes, schistosomiasis, food-borne trematode infections, and lymphatic filariasis. For the first disease, vaccines were procured and vaccination and education campaigns were conducted in 5 provinces in Viet Nam as planned. Deworming of pre-school children was supported in 6 provinces in Cambodia, 8 provinces in the Lao PDR, and 14 provinces in Viet Nam, while WHO targeted school children and women of reproductive age. Mass drug administration campaigns were conducted for schistosomiasis and lymphatic filariasis in southern Lao PDR and north-eastern Cambodia; and for food-borne trematodes in southern Lao PDR. Surveys conducted before and after campaigns showed major reductions in wormload. A regional study was done on soil-transmitted helminthiasis and anemia among women of child bearing age. A regional forum was held on the control and elimination of parasitic diseases with international participation, and a link was established with global NTD control initiatives.

21. **HIV/AIDS control for high-risk populations along transport corridors.** Implementation of this subcomponent was particularly successful. In Cambodia, it supported treatment of AIDS patients and testing equipment for which there was a funding gap. In the Lao PDR, it supported a successful prevention campaign in hotspots, including a 100% condom campaign, voluntary counseling and testing (VCT), and curriculum development for HIV/AIDS

education. In Viet Nam, it supported a 100% condom campaign in hotspots and VCT in 5 provinces. Coverage of hotspots was targeted in both Lao PDR and Viet Nam because of limited funds. The project also supported studies on HIV/AIDS related behavior in border areas and sero-prevalence surveys of HIV. In addition, two national studies focused on Chinese migrants in Luang Namtha and men having sex with men. Special sessions on HIV/AIDS prevention were organized as part of the regional public health forums.

3. Component 3: Strengthening Regional Cooperation in CDC

22. Component 3 was the enhancement of regional cooperation in CDC among the CLV countries and the establishment of sustainable foundations for future cooperation. The three subcomponents were originally presented as (i) regional coordination for dialogue on CDC; (ii) regional operations research and institutional linkages; and (iii) project management. Following the regional health forum in November 2007, these were regrouped to (i) improving institutional arrangements, strategies, and plans for regional cooperation; (ii) regional knowledge management and HRD; and (iii) information sharing and cross-border cooperation in CDC. The new grouping preserved the content of the component, but was more appropriate in terms of organizational functions, with project management being subsumed under the first subcomponent.

23. **Institutional arrangements, strategies, and plans for regional cooperation**. The regional steering committee functioned well. CDC coordination was conducted through focal points (see component 1) specifically for outbreak control, and annual project coordination workshops were held to review progress. Strategic discussions were held to seek greater engagement with the PRC, Thailand, and Myanmar, in particular for cross-border cooperation. While both the PRC and Thailand are already supporting cross-border cooperation and were willing to make a bigger contribution, a larger GMS plan for regional cooperation in CDC has not yet materialize because of ministries decided to adopt a cautious and phased approach. .

24. **Regional knowledge management and HRD**. This subcomponent was successfully implemented. A wide range of knowledge management activities have been completed including forums, workshops, studies, CDC information products, websites, and the establishment of a community of practice.[27] Among the noteworthy activities were the first Regional Public Health Forum held in 2007 in Vientiane, which brought together a range of experts; and studies on (i) legal preparedness for responding to disasters and communicable disease emergencies,[28] (ii) the prevalence of viral diseases,[29] (iii) HIV transmission across borders,[30] and (iv) NTDs.[31] The knowledge products are posted on the CDC website (www.gms-cdc.org), which also provides weekly information on disease outbreaks and innovation on CDC as well as policy documents and standards. The project-initiated community of practice for GMS dengue, Japanese encephalitis, and laboratory services attracted readers during the project, but interest was not sustained after project closing because of a lack of champions and writers to maintain the websites. Competition with international websites may also have been a factor.

[27] The summary of training courses, workshops, and studies is in Appendix 4.
[28] International Federation of Red Cross and Red Crescent. 2009. *Legal Preparedness for Responding to Disasters and Communicable Disease Emergencies*. Study reports for Cambodia, Lao PDR, and Viet Nam. Bangkok.
[29] Ha Noi Medical University. 2010. *Epidemiology of HBV, HCV, HIV and Rabies in the GMS*, *Joint Study Report*. Hanoi.
[30] Ha Noi School of Public Health. 2009. *HIV/AIDS Transmission at the Viet Nam-Lao Border Areas: Status and Solutions, Joint Study Report*. Hanoi.
[31] National Institute of Malaria, Parasitology and Epidemiology. 2010. *Study on the Prevalence of Soil-transmitted Helminthiasis and Anemia Status among Women of Child Bearing Age in Cambodia, Laos and Viet Nam*. Hanoi.

25. **Cross-border information sharing and cooperation.** A survey of cross-border activities showed that about half of the provinces are engaging in regular cross-border activities. These activities were supported by provincial governments, and about half also received external assistance, such as from the Kenan Institute Asia and the Mekong Basin Disease Surveillance Program. Two workshops were held to plan cross-border cooperation, and guidelines were issued. The proposed regional coordination framework and financing mechanism for supporting cross-border activities was initially too complicated and prescriptive. Information sharing and joint actions with neighboring countries are slowly improving based on local initiatives, and this bottom-up approach is now being followed. Outbreaks, e.g., cholera or hand foot and mouth disease, now trigger stronger cross-border cooperation.

C. Project Costs

26. At appraisal, the project was estimated to cost $38.75 million, consisting of $11.25 million for Cambodia, $7.50 million for the Lao PDR, and $20.00 million for Viet Nam. ADB was to contribute $30 million, the governments $7.85 million, and WHO $0.90 million. Of the total amount, ADB and WHO were to contribute $4.30 million and $0.90 million, respectively, to the pooled fund of $5.20 million.

27. At the project closing date, total project costs were $34.40 million, including ADB contribution of $29.47 million, WHO $0.90 million, and the governments $4.03 million in total. Counterpart contributions for Cambodia, the Lao PDR, and Viet Nam were $1.72 million, $0.41 million, and $1.90 million, respectively. Counterpart funds were significantly lower than estimated at appraisal in Lao PDR and Viet Nam due to the tax-free importation of vehicles and lower than expected recurrent costs. The governments also mobilized additional resources for outbreak control outside the project. Table 1 presents the planned and actual project costs.

Table 1: Planned and Actual Project Costs by Source of Funds

	Appraisal				Actual			
Recipient	**ADB**	**Government**	**WHO**	**Total**	**ADB**	**Government**	**WHO**	**Total**
Cambodia	9.00	1.98	0.27	11.25	8.77	1.72	0.27	10.76
Lao PDR	6.00	1.32	0.18	7.50	5.92	0.41	0.18	6.51
Viet Nam	15.00	4.55	0.45	20.00	14.78	1.90	0.45	17.13
Total	**30.00**	**7.85**	**0.90**	**38.75**	**29.47**	**4.03**	**0.90**	**34.40**

28. At appraisal, the three components of surveillance and response, provincial CDC, and regional cooperation and project management were estimated at 44%, 44%, and 11% of project costs, respectively. In terms of spending by category under the project, more was spent on training, workshops, and community mobilization in Cambodia; laboratory equipment, vehicles, and community mobilization in the Lao PDR; and system development, laboratory equipment, project management, and supplies in Viet Nam. The main reasons for the higher project spending in the three countries in these categories were the extension of disease outbreak control outside the targeted provinces and the purchase of additional laboratory equipment.

D. Disbursement

29. Disbursement in Cambodia was initially slow because the project had missed the budget planning cycle. Project spending in the Lao PDR was ahead of schedule because of the expansion of disease control activities, and thereby causing the project to run out of funds before the closing date. MOH Viet Nam completed the project as per schedule. Closure of the

RCU account took time because, even though the RCU had good financial records, expenditures had to be reconciled with ADB's own records.

30. In Cambodia, an imprest account was established in the MOH and managed by the HSSP administration. Funds for provincial activities were channeled to the provincial health departments of the five project provinces using second-generation imprest accounts (SGIAs). Funds for activities implemented by the four national implementing agencies[32] and in non-targeted provinces were managed by HSSP. To help ensure the proper use of funds, a memorandum of understanding (MOU) was signed between the HSSP and each implementing province and institution. However, the flow of funds was affected by a low imprest ceiling, multiple advances for provincial project activities, and slow provincial liquidation.

31. In the Lao PDR, an imprest account was established in the Ministry of Finance (MOF), with an SGIA managed by the project management unit (PMU). Funds for provincial activities were channeled to the provincial health departments through advance accounts; and funds for activities by the three national implementing agencies[33] and in non-targeted provinces were released by the PMU as advances as needed. To help ensure the proper use of funds, an MOU was signed between the PMU and each implementing province and institution. The PMU took responsibility for submitting expenditures to the MOF, which worked well. The management of advances was highly satisfactory, with a short turnaround time

32. In Viet Nam, an imprest account was established in the MOH. Fifteen provincial and 7 institutional advance accounts[34] were managed like SGIAs. Funds for activities in non-targeted provinces were released from the PMU as advances as needed. To help ensure the proper use of funds, an MOU was signed between the PMU and each implementing province and institution. However, the advances had a long turnaround time due to limited provincial financial management capacity, excessive documentation, multiple checks, and delayed liquidation of expenditures. Nonetheless, provincial performance has markedly improved in recent years.

33. To facilitate the flow of funds for regional activities, $4.3 million or 11% of the total project funds was administered by ADB as a regional pooled fund[35] and managed by the RCU. The regional CDC fund was drawn from ADB's share of the grant, on the basis of a ratio of 30:20:50 for Cambodia, the Lao PDR, and Viet Nam, respectively. This fund covered expenditures for the project's Regional Steering Committee (RSC), technical forums, international consulting services, regional studies, cross-border activities, and the RCU itself. ADB's administration of the pooled fund ensured the efficient release of funds for regional activities. WHO engaged international experts according to procedures acceptable to ADB.

E. Project Schedule

34. The original and actual project implementation schedules of the 4-year project are in Appendix 5. In Viet Nam, the project was completed on time, with all disbursements being completed within the 4 years. In the Lao PDR, the project was completed ahead of schedule. In

[32] CDCD, National Institute of Public Health, National Center for Malaria, and National Center for HIV/AIDS and Sexually Transmitted Diseases.
[33] National Center for Laboratory and Epidemiology, Center for HIV/AIDS and Sexually Transmitted Diseases, and Center for Malaria, Parasitology, and Epidemiology.
[34] Pasteur National Institute of Hygiene and Epidemiology; Pasteur Institutes in Ho Chi Minh City and Nha Trang; National Institute of Malaria, Parasitology, and Epidemiology; Institutes of Hygiene and Epidemiology in Qui Non and Central Highlands; and the Viet Nam Administration of HIV/AIDS Control.
[35] Pooled in this instance does not mean an actual joint fund, but virtual pooling of funds from three grants.

Cambodia, the project was extended for one year to finance dengue control, outbreak response, and the final audit and survey. However, the schedules show delays in engaging consultants and in procurement. Also, in Cambodia, the project missed the annual planning cycle, which delayed the start of the project. Almost all activities were reported as completed within the original project period of 4 years, except for a few activities in Cambodia, reflecting the high government commitment to the project.

F. Implementation Arrangements

35. Implementation arrangements were satisfactory. The project was implemented through regular MOH departments, provinces, and institutions in each country, some of which were implementing agencies.

(i) In Cambodia, the project was administered as part of the sector-wide HSSP.[36] The MOH secretary of state was the project director, while CDCD was the coordinating implementing agency, and its director led the PMU as the project manager. Three national institutions and the five targeted provinces were the implementing agencies. The PMU had staff constraints and relied heavily on contractual staff.

(ii) In the Lao PDR, the project was administered and coordinated by the Department of Planning and Finance (DPF), which has administered several projects including the first health sector program.[37] DPF's deputy director general headed the PMU. The Department of Hygiene and Prevention was responsible for technical coordination. Three national institutions and the six targeted provinces were the implementing agencies. Availability of project staff was highly satisfactory.

(iii) In Viet Nam, project administration and coordination was handled by the GDPM, which has also managed related projects.[38] Three national institutions and 15 provincial preventive medicine centers served as implementing agencies. The director general of GDPM served as project director and headed the PMU. However, the cost norms for consultants were too low to attract mid-career experts, and so the PMU relied on young contractual staff.

36. Each country had oversight arrangements led by a vice-minister of health. MOH steering committees in each of the three countries were responsible for project reviews and guidance.

37. Project monitoring and evaluation was challenging as it was partly done through the existing monitoring systems, which lacked regular collection of reliable, disaggregated data. Monitoring of emerging diseases, dengue, and NTDs was done separately through disease control programs using surveys, surveillance, and intervention studies. Additional household surveys were conducted to complement the data and obtain disaggregated data. Routine reporting provided data on project inputs, activities, and outputs. Each MOH prepared a project completion report and gender action plan (GAP) with basic project information and results. Overall, project monitoring and evaluation remained incomplete and was less than satisfactory.

38. The RSC met once a year and was also consulted by mail and e-mail to guide regional project activities. A regional coordination unit (RCU) in Hanoi was assigned to function as the secretariat of the RSC, coordinate regional activities, conduct knowledge management, and

[36] ADB. 2002. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Kingdom of Cambodia for the Health Sector Support Project*. Manila.

[37] ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Lao PDR for the Health Sector Development Program.* Manila.

[38] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Preventive Health System Support Project*. Manila.

provide administrative backstopping. The RCU liaised with stakeholders; collected information on CDC in the GMS; supported consultants; provided logistical support; organized regional workshops and forums; undertook website maintenance; coordinated the community of practice; and participated in project monitoring and reporting. The RCU produced a range of knowledge products (Appendix 4). The overall performance of the RCU was satisfactory.

39. In each country, health sector governance has improved in terms of leadership and coordination capacity. However, management capacity constraints remain in Cambodia; and coordination and delegation of implementation remains inadequate in Viet Nam. In the Lao PDR, strong vertical programs conflict with decentralized services. Despite the integrated set-up, project coordination with other projects could have been improved. The use of provincial AOPs in each country helped promote a sector approach. Provincial capacity constraints in financial management initially resulted in slow liquidation. Audit reports were often delayed by 1–3 months. Two out of 14 audits in the CLV countries were qualified because of minor recording errors in the first project year. Weakness in financial management was also noted regarding account keeping and internal controls. There were no issues relating to use of the imprest funds and statements of expenditures. Late reconciliation of pooled funds was due to missing documentation in ADB, which was resolved with the excellent back-up data of the RCU.

40. During project implementation, a frequent concern raised by the executing agencies was the complexity of ADB procurement procedures, and that the ADB instructions and templates for procurement changed several times a year. The executing agencies recommended that ADB change these only once a year, and provide training to all executing agencies before implementing any changes.

G. Conditions and Covenants

41. Covenants and safeguards were relevant and fully complied with except for compliance with the GAP and the ethnic minority plan (EMP). Appendix 6 summarizes compliance with covenants and safeguards. Delayed approval of AOPs affected the flow of counterpart funds at the start of the fiscal year. While governance issues in financial management and audit are noted in paragraph 39, no major governance issues were identified. The project completion report was also delayed, initially due to late reconciliation of accounts, as mentioned in paragraph 39, and later on for collection of project statistics for GAP assessment.

42. Women's issues were incorporated into policies, training, and services, and women benefited equally from disease control interventions, but this was not systematically documented during implementation. The project was classified as "gender equity in opportunities." However, based on ADB's Results Framework, introduced in 2008 and updated in 2013,[39] the project is rated as not successful from a gender equity perspective, as it does not meet the criteria of (i) gender equality results at impact and outcome level, (ii) sex disaggregated data, and (iii) meeting 75% of GAP targets. The executing agencies failed to report on GAP implementation. The main issues were (i) shortcomings in the gender assessment and GAP preparation; (ii) the focus of executing agencies on outbreak control of infectious diseases following a population-based approach, even though they recognized the vulnerability of women and children; (iii) the initial failure of executing agencies to set up disaggregated data collection and reporting systems; (iv) insufficient identification and mitigation of this risk at the project formulation stage; and (v) delays in the engagement of national consultants given the low cost norms and scarcity of qualified experts. In CDC2, these issues

[39] ADB. 2013. *Results Framework 2013–2016*. Manila

are being addressed. The project's summary of gender equality results and achievements is in Appendix 7.

43. The project was expected to have a positive impact on indigenous peoples. However, the covenant is partly complied with due to insufficient evidence of project benefits for ethnic groups. Of the targeted project provinces, 2 out of 5 in Cambodia, 3 out of 6 in the Lao PDR, and 2 out of 15 in Viet Nam had a predominantly ethnic minority population. Outbreaks often occur along economic corridors, and the project teams were initially guided by outbreak control, rather than targeting ethnic groups. Executing agencies are also hesitant to specifically target ethnic groups based on the concept of ethnic integration. However, given the conditions in which some of the poorest ethnic groups live, such targeting seems justified. CDC2 includes a specific output targeting remote border villages.

H. Consultant Recruitment and Procurement

44. **Consultant Recruitment.** Consultant recruitment was in accordance with the *Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers*. Engagement of international consultants was satisfactory. The regional coordinator, the HIV/AIDS adviser, and the health systems adviser were engaged by ADB under the pooled fund using individual consultant selection. WHO engaged international consultants for the control of emerging diseases. While the executing agencies engaged national consultants, they had difficulty finding suitable candidates as salaries were not competitive and cost norms were low. The summary of consulting services is in Appendix 8.

45. **Procurement.** Procurement of all goods and services under the project was in accordance with *Guidelines for Procurement under Asian Development Bank Loans.* Procured items include office furniture and equipment, laboratory equipment, vehicles and motorcycles, medical drugs and supplies, and information materials (see Appendix 9). Procurement methods employed include international competitive bidding, limited international competitive bidding, national competitive bidding, shopping, and direct contracting. Procurement procedures were lengthy, requiring frequent ADB approval. In Viet Nam, there are many procurement steps, and the procurement committee reviews all major procurement twice. In the MOH, DPF is also responsible for procurement, but has limited staff capacity to handle the workload.

I. Performance of Consultants, Contractors, and Suppliers

46. ADB engaged international experts for regional coordination (based in Ha Noi), HIV/AIDS (based in Cambodia), and health systems (based in the Lao PDR). In addition to specific technical inputs, each expert was also expected to support project management in the country of residence. WHO directly engaged technical consultants for the control of emerging diseases from its pooled fund allocation. The performance of international consultants was generally satisfactory, but coordination with WHO-financed experts could have been better. The performance of national consultants and suppliers was also satisfactory. Where contracts provided for it, contractors provided after-sales support for laboratory equipment maintenance and supply of spare parts.

J. Performance of the Recipients and Executing Agencies

47. The performance of the recipients and executing agencies was satisfactory. Official counterpart financing did not reach targeted amounts, as mentioned in paragraph 26, largely due to tax exempted importation of vehicles and lower than estimated recurrent costs; some

government expenditures were also not captured in the project accounts. PMUs faced capacity constraints, but on the whole showed a high level of commitment to complete the project on time. Stewardship was strong in the three countries. The efforts of the provincial PMUs showed a strong commitment to project implementation, despite facing multiple hurdles.

K. Performance of the Asian Development Bank

48. ADB project support performance was satisfactory. ADB's commitment to consistent and continuous support was demonstrated through the assignment of a mission leader of sufficient seniority for the full implementation period. The mission leader was mostly accompanied by staff of the resident missions during missions. Six formal review missions were conducted in 4 years, complemented by participation in several separate project workshops. The three-country grants were handled as one project, which resulted in less time being allocated to each country than in the case of a stand-alone single-country project. Given the complexity of a regional project, the PMUs commented that more hands-on support would have been useful. In terms of procurement and financial administration, the executing agencies noted that ADB procedures also contributed to delays.

III. EVALUATION OF PERFORMANCE

A. Relevance

49. The project is rated *highly relevant* for regional public health security. As expressed by the MOHs of the CLV countries, it specifically addressed major gaps in emergency response capacity and in the implementation of other strategic areas of WHO's IHR and APSED (footnote 20), which had become a high priority following outbreaks of SARS and AHI. It helped put surveillance and response systems in place and directly supported the control of dengue, cholera, and other re-emerging diseases that also have a major human, and, through trade and tourism, economic impact. The project supported interventions for NTDs that mostly affect poor and ethnic minorities. The project was in line with ADB's Policy for the Health Sector, Strategy 2020, Operational Plan for Health, GMS Strategic Framework, and country partnership strategies, which emphasize the need to strengthen regional cooperation, mitigate the health impact of regional integration, and address regional public goods.

B. Effectiveness in Achieving Outcome

50. The project is rated *effective.* Child mortality has declined significantly in the three countries; although the project helped to contain common infections, it is difficult to estimate how much the project contributed to the overall decline. The project was at the forefront of containing the AHI epidemic and other outbreaks, which potentially have large economic impacts. The project also contributed to containing dengue outbreaks[40] and reducing the case fatality rate in patients with dengue. The project improved coverage of IMCI; compared to a target of 75%, coverage of deworming pre-school children (aged 12–59 months) improved to over 90%. This is one of the most cost-effective interventions with a major impact on child nutrition, learning, and future productivity. The project contributed to HIV prevention in the Lao PDR, HIV treatment in Cambodia, and HIV education in Viet Nam. Project interventions mostly

[40] Urbanization, connectivity, mobile populations, and environmental and climate change have probably all contributed to the spread of dengue into rural areas. Provinces that did not use to have dengue are now reporting dengue cases. Dengue incidence has increased despite a large-scale control campaign. Compared to a target of 15% decline in the cumulative dengue incidence (per 100.000 population), the dengue incidence increased, with a a major outbreak in 2007. With better reporting of dengue cases the monthly incidence is now carefully monitored.

benefited the poor, including ethnic groups. Given the nature of infectious diseases, the populations of the targeted provinces and elsewhere are expected to have benefited from the project. However, project data is insufficient to ascertain clearly the number of beneficiaries among the poor, women and children, and ethnic minorities. The results of the project are given in the design and monitoring framework in Appendix 1.

C. Efficiency in Achieving Outcome and Outputs

51. The project is rated *efficient* in achieving the intended outcome. In Viet Nam, the project was completed on time with all disbursements completed. In the Lao PDR, the project was completed ahead of time. In Cambodia, it was extended for one year to be able to finance dengue prevention, outbreak response, and the final audit and survey. Initial project delays occurred because of the time it took to establish PMUs, engage consultants, and prepare and obtain approval for specifications for equipment and bidding documents. Counterpart funds were not immediately released after AOP approval, and liquidations were sometimes delayed, primarily due to staff constraints, including at ADB. However, the PMUs managed to overcome these delays. In terms of organizational efficiency, the project was mainstreamed through the regular health services; central planning was undertaken in consultation with provinces and implemented through the existing implementation and monitoring systems of national programs and provincial health services, involving minimal additional organizational structures. Based on the economic analysis, the internal rate of return is calculated at 28% (Appendix 10).

D. Preliminary Assessment of Sustainability

52. The project is rated *likely sustainable*. The governments are highly committed to the control of emerging diseases, dengue, HIV/AIDS, and other infections of regional importance, and to stronger regional and cross-border cooperation under its IHR and APSED obligations. With a better understanding of the determinants of disease outbreaks and response requirements, provinces are increasingly committed to strengthen provincial health systems, targeting remote communities, as well as to improve provincial training, maintenance, and monitoring for results. Recurrent cost implications of the project following completion are estimated at 0.7%, 1.1%, and 0.1% of total recurrent public health spending in Cambodia, the Lao PDR, and Viet Nam, respectively. The Lao PDR recurrent cost implications are relatively high as the Lao PDR health budget is still low, coming from a very low base (Appendix 10).

E. Impact

53. The project had a substantial impact in such areas as the control of AHI, dengue, and NTDs. IMCI helped improve diagnostics for better case management of children. Regional networking also contributed to the improved CDC. However, given the project scope and the unavailability of data, it is difficult to attribute any reduction in child mortality to the project.

IV. OVERALL ASSESSMENT AND RECOMMENDATIONS

A. Overall Assessment

54. The project is rated *successful.* The design was fully aligned with the CLV countries' development priorities and consistent with ADB's strategies; and it was largely implemented as planned. Changes of scope in Cambodia and the Lao PDR sought to expand the coverage of interventions. Surveillance systems show that outbreaks of communicable diseases have been controlled, and national and household surveys indicate that the project has had a substantial

impact. Issues were the initial start-up delay, slow liquidation, suboptimal targeting of beneficiaries, in particular women, and weak implementation of gender and ethnic minority covenants. The strong commitment of central and provincial governments for CDC is likely to sustain the impact of the project

B. Lessons

55. ADB, the executing agencies, and the implementing agencies have identified the following lessons.

(i) **Targeting Vulnerable Groups.** The project was designed to target vulnerable groups, including the poor, women and children, and ethnic minorities. It mainly targeted poor provinces in border areas, including 7 provinces out of 20 with a predominantly ethnic minority population. The project interventions benefited poor women and children, who are more at risk of communicable diseases. However, based on ADB's results framework criteria, the project is rated unsatisfactory for gender equity. It only partially complied with gender and ethnic minority covenants. While the executing agencies were responsive to prioritizing the needs of women and ethnic groups, these groups were not specifically targeted in outbreak control. Disaggregated indicators could not be provided. Engagement of consulting services also takes time in government systems, and came too late to help integrate gender and ethnic concerns in project activities. The feasibility of indicators and monitoring targets, and the capacity of the executing agencies should be taken into consideration when preparing the project.

(ii) **Training**. The ministries have a strong tradition of top-down training programs to be implemented by the provinces, often in an ad hoc manner. Provincial capacity to plan and coordinate training activities is insufficient. Provinces also lack core capacities in teaching methodology and in monitoring staff performance.

(iii) **Knowledge Management.** Participation in regional dialogues and other knowledge management activities has, through learning and sharing, made national and provincial CDC leaders more competent, cooperative, and competitive. However, participation in internet-based learning and sharing is still at a nascent stage.

(iv) **Mainstreaming Project Implementation.** Carrying out project administration through existing structures helped speed up project implementation. Delegation of project activities to concerned departments and provinces facilitated implementation. Inclusion of project activities in national and provincial AOPs provided better integration of health services and funding.

(v) **Financial Management**. Financial management requires further improvement through training of provincial staff, timely approvals of AOPs, and timely liquidation of advances.

C. Recommendations

56. The following recommendations have largely been incorporated into the follow-on CDC2 project.

1. Project related

(i) **Strengthen monitoring and evaluation.** Solid project monitoring and evaluation is critical, including monitoring of PMUs. Corrective measures should be taken immediately and firmly to address any issues that may affect project performance.

(ii) **Prioritize gender action plan and ethnic minority plan.** GAP and EMP details should be prepared at the design phase, while taking into consideration the special nature of outbreak control and response activities. Engaging consultants through advance action will help ensure that GAP and EMP are fully implemented in project activities. Indicators should clearly identify data sources.

(iii) **Continue strengthening outbreak response**. APSED 2005 implementation in the CLV countries is about halfway. Surveillance and response systems are well established but these need to be brought up to the level of real time monitoring, so as to be able to contain outbreaks at an early stage. More work is needed to improve laboratories, and infection control in hospitals, schools, and markets. Areas added by APSED 2010, including risk assessment, regional coordination, and monitoring of APSED implementation, should also be strengthened.

(iv) **Reach border villages with CDC**. Border villages, particularly those of ethnic minorities, are often remote, or are exposed to cross-border migration and other risk factors. For traditional or transitional reasons, these villages are often lagging behind in terms of CDC, and should be given special attention by the governments and development partners, through AOPs and targeted measures.

(v) **Strengthen cross-border cooperation.** Cross-border cooperation, while guided by national policies, should be managed by provincial governments and included in provincial AOPs with flexible arrangements based on local needs and priorities.

(vi) **Develop provincial training system.** To better manage training programs and improve their impact, each province should establish a provincial training system including a provincial training team, core trainers, training in teaching methods, a staff database, an annual training plan as part of the AOP, and follow-up of staff performance.

(vii) **Timing of the project performance evaluation report.** The project performance evaluation report may be done at any time.

2. General

(i) **Regional project design and implementation**. Important features of regional projects are (i) strong consensus building processes, (ii) readiness of countries to work together, (iii) one agreed design and monitoring framework, (iv) interlinked annual operational plans, (v) government rules for regional cooperation, and (vi) arrangements to finance regional activities such as through a pooled fund.

(ii) **Procurement and financial management capacity**. To improve and speed up procurement and improve financial management and the flow of funds, additional staff apprenticeships will continue to be needed at all levels. Further simplification of procurement procedures is also recommended.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Results	Data Sources/ Reporting Mechanisms	Assumptions
Impact Contain the spread of epidemic diseases at local level, and reduce the burden of common endemic diseases by about 15% in the targeted provinces, and more for certain specific infections, in the CLV countries. This will help these countries progress toward their health-related MDGs for 2015 of reducing the child mortality rate and containing the spread of HIV/AIDS and other infections.	Cambodia targets by 2010: IMR: reduced from 66/1,000 to 60/1,000 live births U5MR: reduced from 83/1,000 to 75/1,000 live births HIV prevalence rate among 15-to 49-years reduced from 2.3% to 2.0% Common diseases reduced by 15% in targeted provinces Dengue incidence reduced by more than 15% Helminth infection reduced by more than 15% Lao PDR targets by 2010: IMR: reduced from 75/1,000 to 50/1,000 live births U5MR reduced from 100/1,000 to 60/1,000 live births HIV prevalence rate among 15-to 24-year-old commercial service women remains below 1% Viet Nam targets by 2010: IMR: reduced from 40/1,000 to 32/1,000 live births U5MR reduced from 60/1,000 to 40/1,000 live births HIV prevalence rate in the general population kept below 0.32% (2005 is 0.27%)	**Cambodia** National IMR: reduced from 66/1,000 to 45/1,000 by 2010 National U5MR: reduced from 83/1,000 to 54/1,000 by 2010 HIV prevalence (15–49 years) reduced from 0.9% in 2006 to 0.7% in 2009. In the 5 project provinces, the number of reported cases of acute watery diarrhea increased 3.37 times (cholera epidemic), bloody diarrhea increased 1.71 times, and ARI increased 2.18 times. National dengue incidence varied from 70.8/100,000 in 2005 to 83.4/100,000 in 2009, with an epidemic of 312.0/100,000 in 2007. Prevalence of schistosomiasis in the 3 targeted provinces declined from a range of 6–15% in 2007 to 1–5% in 2009. Food-borne trematode infections declined from 10% in 2007 to 2% in 2009. **Lao PDR** National IMR: reduced from 75/1,000 in 2004 to 42.1/1,000 in 2010 National U5MR: reduced from 98/1,000 in 2004 to 61/1,000 in 2010 HIV prevalence among 15–24 year old service women reduced from 2.02% in 2004 to 0.4% in 2008. Average annual dengue incidence in 5 targeted provinces declined from 662/100,000 in 2005 to 301/100,000 in 2009. Dengue incidence in the target provinces declined by 53% between 2005 and 2009; fewer cases in Savannakhet and Champasack, but dengue spread to Oudomxai and Attapeu. **Viet Nam** IMR: reduced from 31/1,000 in 2004 to 23/1,000 in 2009 U5MR: reduced from 36/1,000 in 2004 to 28/1,000 HIV prevalence rate among 15–49 year olds is 0.4%. STH infection rate in all project provinces was 42% in 2007, 9.1% in 2008, and 12.4% in 2010. Dengue cases in 7 project provinces declined by 10% to 191 cases / 100,000 people.	Cambodia Cambodia Demographic and Health Survey 2005 and 2010 2006 HIV Sentinel Surveillance HMIS weekly disease reporting system Lao PDR World Bank World Health statistics 2010 Lao PDR MDG statistics NCLE WHO Viet Nam United Nations statistics NIMPE PCR	**Assumptions** No major social or economic disruptions to allow time to set up and test the system • Disease control interventions are effective (this is a particular issue for dengue control) Behavioral change communication for HIV/AIDS prevention is effective

Design Summary	Performance Targets/ Indicators	Results	Data Sources/ Reporting Mechanisms	Assumptions
Outcome Timely and adequate control of epidemics that are likely to have a major impact on the region's public health and economy.	Proportion of responses to reported disease outbreaks	**Cambodia** Submission of zero reporting from health center increased from 85% in 2006 to 95% in 2009. 90% of disease outbreaks are reported within the first 24 hours compared to a target of 100%. 98% of disease outbreaks are investigated within 24 hours after reporting. **Lao PDR** Compared to 14 outbreaks reported in 2005, 66 outbreaks were reported in 2009, of which 30 (45.5%) were responded to appropriately by provincial teams and 36 (54.5%) were responded to appropriately by a central team, out of a target of 100%. **Viet Nam** 60% of targeted districts provided timely reporting. 40% of rapid response teams provided an appropriate response.	**Regional** Disease surveillance and response reporting systems, including WHO monitoring reports, disease outbreak reports, and informal sources **Lao PDR** NCLE outbreak report	**Assumptions** Surveillance system can identify diseases in a timely manner. Funding for surveillance and response system is adequate. Necessary work can be carried out in border and isolated areas. .
Improved coverage of prevention and care of communicable diseases in vulnerable populations, in particular poor women and children living in border areas	Proportion of targeted men, women, children, and ethnic minorities that received proper prevention and care for common infections, including HIV/AIDS	**Cambodia** Dengue vector control in high risk locations was 93.2% in 2009 In 5 targeted provinces, 83% of pregnant women; 64% of pre-school children; and 53% of women with a child less than 2 years were treated for STH (2011 HH survey) Nationally, the number of patients receiving HAART increased from 12,355 in 2005 to 34,384 in 2009 (project procured medicine) **Lao PDR** Dengue vector control coverage in villages was 31%, 59%, and 30% in 2007, 2008, and 2009, respectively. The decrease in 2009 was due to funding constraints. **Viet Nam** Use of mosquito nets increased from 85% to 98%; and use of insecticide-soaked mosquito nets increased from 1.5% to 5.4% 46,191 children fully vaccinated for Japanese encephalitis	Community health surveys Behavioral change survey	Current funding for CDC and health services is sustained. There are available staff to expand services. Behavioral change communication is effective.
Improved know-how, policies, standards, and coordination among countries to improve CDC, including HIV/AIDS	Policy reforms carried out to improve CDC, including integration of CDC in provincial health systems, improved delivery systems, cross-border and bilateral coordination, and other health	**Regional** Establishment of early warning of outbreaks and response systems; focal points; and coordination arrangements Various knowledge management products Access of migrants and mobile people was not measured.	PCRs, QRs	**Assumptions** Policies are appropriate and effectively implemented Access of migrants and mobile people is

Design Summary	Performance Targets/ Indicators	Results	Data Sources/ Reporting Mechanisms	Assumptions
control.	system improvements Access of migrants and mobile people to health services	**Cambodia** Law on communicable diseases control under preparation **Lao PDR** National Avian Influenza Control and Pandemic Preparedness Plan, 2006–2010; Comprehensive CDC Plan for the period up to 2015. **Viet Nam** Law of Communicable Diseases Control ref 03/2007/QH12, 21 Nov 2007; Decrees on biosafety of laboratories, quarantine, and other measures; Decisions on CDC (4) Circulars (9) including on school hygiene, construction hygiene, and conditions for health facilities for CDC; Manuals (17); IEC materials (15)		measured mistake, its not about legislation
Outputs 1. Comprehensive national surveillance and response systems, including institutional structures; preparedness; surveillance and response; laboratory services; and HRD—in all three countries nationwide.	Degree of compliance with requirements of revised IHR. Target: full compliance by WHO deadline Preparedness plans formulated and implemented in all target areas Goals and standards of plans attained Improved capability of hospital and preventive staff in organizing outbreak response Greater coordination of sectors	**Regional** International checkpoints have contingency plans for public health emergencies In Cambodia and Viet Nam, all ships receive sanitation control by quarantine service Most laboratories do not meet MOH standards All 24 provinces, districts, and hospitals have an outbreak plan Rapid response teams are equipped, trained, and functioning well Hospitals do not have surge capacity Coordination mechanisms among sectors are in place but only activated when there are outbreaks Contrary to assumptions, there was insufficient global support for the roll out of the WHO framework for IHR and APSED; and linkages between WHO strategic frameworks and national implementation remain weak.	Project reports Government reports Legislation to support implementation of IHR Evaluation of the plans and training	**Assumptions** Institutional structures and systems support for implementation of the IHR are in place. Strong collaboration of MOH, WHO, and other stakeholders in building national surveillance and response system Revised IHR ratified on schedule by WHO and member countries
2. Expanded and integrated CDC for vulnerable groups in 26 provinces (5 in Cambodia, 6 in Lao PDR, and 15 in Viet Nam).	Strengthened provincial capacity for CDC Supporting comprehensive CDC for vulnerable groups, including control of neglected communicable diseases like dengue and parasitic infections Improving prevention of HIV/AIDS and care for high risk populations.	**Regional** All provinces have increased capacity for CDC Scaled-up support for control of dengue and NTDs in all provinces Dengue control is difficult to sustain because of the relatively high cost No specific targeted support for ethnic groups HIV/AIDS prevention coverage scaled up in Lao PDR	Management study Surveys of target groups MOH statistics	**Assumption** Vulnerable groups have social, financial, and physical access to these services.

Design Summary	Performance Targets/ Indicators	Results	Data Sources/ Reporting Mechanisms	Assumptions
3. Productive regional coordination for CDC through capacity building of MOH, regional policy dialogue, support for regional institutions in operations research for HIV/AIDS control and other fields in support of this dialogue, and project management.	MOH's performance in regional coordination Outreach to counterparts in other countries at all levels to coordinate CDC Policy "lessons" identified Adjustments made in the policy formulation process Legislative activities Recognized gaps/weaknesses closed Strategies to increase/ strengthen women's participation and access Transfer and translation of research, CDC information, case studies, lessons learned, and curricula Active interactive website	**Regional** Effective regional coordination of project activities through annual regional steering committee and project workshops Partly effective regional and cross-border coordination of disease control Effective regional coordination unit for building regional coordination and knowledge management including a website (GMS-CDC.org), public health and technical foruims, and other products Communities of practice were established for dengue and Japanese encephalitis. These were functioning for some time, but lacking a champion it was not sustained after project closing. Regional and national institutions produced several publications Invitations for cross-border cooperation with the People's Republic of China and Thailand did not materialize due to time constraints. Policy lessons identified mainly concern dengue control and laboratory services.	Project reports Government reports Special evaluation study, including stakeholder mapping and interviews Publications Web site	**Assumptions** Policy makers are receptive to inter-country policy dialogue and make meaningful information exchanges Legislative bodies do not unduly delay alterations proposed to strengthen legal framework

Activities with Milestones	Cambodia	Lao PDR	Viet Nam
1. Component 1: Strengthened National Surveillance and Response Systems			
1.1 Support mechanisms for intra- and inter-sectoral collaboration to implement the IHR. 1.2 Support stepwise planning and development of a national surveillance and response system. 1.3 Prepare reference manuals/ guidelines, equipment, and training to implement the surveillance and response systems in selected provinces and districts. 1.4 Develop in-service programs for surveillance and response at different levels of the health system. 1.5 Develop and implement	1.1 Inter- and intra-ministerial coordination mechanisms for outbreak response and roll-out of IHR/APSED supported 1.2 National surveillance and response system rolled out for 5 provinces. 1.3 Manuals prepared and equipment provided, including for international border checkpoints 1.4 Training of at least one health staff from all facilities in surveillance, response, and preparedness; training of quarantine staff at border checkpoints (2009) 1.5 Preparedness plans developed and orientation provided but need more 1.6 Only national simulation exercises	1.1 Inter- and intra-ministerial coordination mechanisms for outbreak response and roll-out of IHR/APSED supported (NAHICO). National Surveillance Working Group established including partners 1.2 Policies and regulations reviewed and aligned with the IHRs; commitment to the development of long-term strategic plans for CDC; revised national surveillance and response system in place; RRTs established. National surveillance system (EWARN – Early Warning, Alert and Response Network) installed by NCLE; 17 disease conditions reported from all hospitals, health centers and VHW, using telephone and internet	1.1 Inter- and intra-ministerial coordination mechanisms for outbreak response and roll-out of IHR/APSED supported by UN. 1.2 National surveillance and response system (EWARS – Early Warning and Response System) rolled out for 15 provinces 1.3 Manuals prepared, equipment provided to all provincial and district RRTs 1.4 Preventive medicine staff, hospital staff, and over 80% of VHWs in targeted provinces were trained in community-based surveillance and response. Total of 1,233 training courses and workshops conducted from 2006 to 2009. Quarantine training for 182 trainees. 1.5 IEC and community mobilization through more than 9,000 meetings; IEC

Activities with Milestones	Cambodia	Lao PDR	Viet Nam
community hospital preparedness plans. 1.6 Conduct national and multinational outbreak simulation exercises. 1.7 Develop and implement undergraduate- and graduate-level training models for surveillance and response. 1.8 Develop a national system of laboratory quality assurance and bio-safety. 1.9 Develop GIS-based inventory of health facilities and resources as tool for planning outbreak response. 1.10 Develop methods of enhancing the capacity of MOHs to use national data generated by the surveillance systems. 1.11 Provide equipment and user support for provincial and reference laboratories for emerging diseases and HIV/AIDS education in border and remote regions.	conducted, no provincial and district exercises 1.7 No pre-service training models developed 1.8 Basic system agreed to, training provided, but facilities not up to standard 1.9 Not done, only manual tools available in CDCD 1.10 CDCD has improved data analysis for IHR and APSED with support of WHO 1.11 All targeted lab technicians trained in quality assurance; all laboratories received some essential equipment and supplies but laboratories do not meet standards.	1.3 Completion of outbreak investigation and response manuals, standard operating procedures, and RRT guidelines to respond to outbreaks; equipment and transport provided for provincial and district RRTs 1.4 Training of health officers, RRTs, VHVs; quarantine officers, customs, and disinfection staff at border checkpoints; provincial and district hospitals (case management); and community leaders and others, in surveillance and outbreak response (total 9,500 persons) 1.5 National Avian Influenza Control and Pandemic Preparedness Plan 2006-2010 developed. All provinces completed pandemic preparedness plans by 2009. Hospital preparedness plans prepared. 1.6 Outbreak simulation exercises conducted for central and provincial staff along borders. 1.7 Curriculum for surveillance and response refresher training developed; 1.8 Laboratory assessment done, but the system of quality assurance and biosafety has not yet been developed 1.9 Development of and training in GIS 1.10 WHO plans to provide support for strengthening surveillance data analysis 1.11 Basic equipment provided to the reference laboratory and a few provincial laboratories	equipment provided to 14 provinces 1.6. In total, 18 simulation exercises conducted at the provincial level 1.7 Not done 1.8 Legislation for laboratory quality assurance and bio-safety was developed; manuals and standard operating procedures were prepared; safety features of facilities were improved; quality control measures were improved, including regular calibration; and laboratory staff were trained through apprenticeships and classroom teaching. 1.9 Not done; this is being maintained manually at the provincial level 1.10 Not done; this is being done manually 1.11 Conducted 15 training courses for laboratory staff in 60 districts for 269 trainees. All laboratories of district preventive medicine centers have at least the minimum equipment
2. Component 2: Improved CDC in Vulnerable Groups 2.1 Provide training and support programs for provincial planning and budgeting staff.	2.1.1 At least 5 provincial staff from each targeted province received training in planning and budgeting (AOP). Annual workshops and ongoing central support for preparation of provincial AOPs. 2.1.2 Provincial training, procurement and financial management activities supported	2.1.1 Provincial health sector planning dataset developed from national database 2.1.2 Tools for planning, budgeting, supervision, and audits developed 2.1.3 Integrated training, combining preventive methods, curative methods and control measures for CDC provincial teams 2.1.4 Integrated training for district health staff, health center staff and VHV on surveillance and reporting, in 6 provinces	2.1.1 All project provinces trained in project planning and budgeting, and procurement and financial management 2.1.2 NIHE prepared manuals for IMCI 2.1.3 NIHE trained 401 health staff, 273 commune health staff, and 7,860 health collaborators in IMCI 2.1.4 NIHE supervised IMCI in targeted health facilities and villages 2.1.5 Equipment and supplies procured

Activities with Milestones	Cambodia	Lao PDR	Viet Nam
	2.1.3 IMCI training: 104 local trainers including 33 female trainers; 293 health staff (60%) including 99 female staff; 1,384 HC staff (100%); and 1,055 village health support groups including 322 females 2.1.4 All IEC materials produced have been disseminated	2.1.5 IEC materials for various diseases developed, and training in correct use given 2.1.6 Case management training of doctors and nurses for dengue and avian influenza.	for IMCI
2.2 Carry out preventive and curative disease control activities for endemic and emerging diseases.	2.2.1 80% of health facilities in project provinces and 10% in other provinces have at least one staff training in dengue case management. 2.2.2 All primary school directors and teachers in target areas are trained in school-based dengue interventions.	2.2.1 NCLE developed SOP for dengue surveillance, outbreak detection, outbreak response and investigation (2007) 2.2.2 Prepared National Dengue Control Policy (2007) and Helminthiasis Policy 2.2.3 Trained school teachers 2.2.4 Conducted vector control campaigns 2.2.5 Trained 1,166 staff in NTD control 2.2.6 Conducted filariasis survey (showed 60.26% of adults infected in Champasack province). 2.2.7 Trained 56 laboratory staff 2.2.8 Trained 1,110 participants in OV MDA 2.2.9 Conducted OV MDA in 518 villages with 378,958 persons at risk in 2008 2.2.10 For schistosomiasis, trained 636 participants in MDA in 2007; conducted schistosomiasis survey; conducted schistosomiasis prevention and MDA for 194 villages (111,484 people). 2.2.11 LF MDA for 24 remote villages in 2008, and for 204 villages (104,097 people).	2.2.1 Developed community-based control models for dengue, JE, cholera, typhoid and STH. 2.2.2 Trained curative staff at provincial, district, and commune levels on CDC methodology in case of emergencies, based on WHO guidelines 2.2.3 For dengue, conducted case detection and treatment, and vector control; and established a collaborator network for mobilizing households in high risk locations 2.2.4 Conducted IEC campaigns for JE, NTDs, diarrheal diseases 2.2.5 Purchased kits and drugs for diagnosis and treatment of common infections
2.3 Educate vulnerable groups and provide continuum of care, including procurement of antiretroviral drugs and counseling for HIV/AIDS control in Lao PDR.	2.3 As planned, in Cambodia, because of support from other partners, support was limited to provision of medicines for HAART for about AIDS patients.	2.3.1 Trained 38% of VHVs in HIV/STI 2.3.2 Procured drugs, reagents, condoms 2.3.3 Conducted advocacy campaigns 2.3.4 Trained 81 female and 37 male health staff on HIV/STI diagnosis and management 2.3.5 Conducted workshops on BCC and VCT in 11 targeted provinces 2.3.6 Conducted a workshop with teachers on integrating HIV/AIDS and dengue	2.3. A community-based HIV prevention program implemented in high risk districts and communities along major economic corridors in southern Viet Nam, including through VAAC 2.3.1 Participatory program planning 2.3.2. Trained staff, including female staff and ethnic staff 2.3.3 Provided peer education 2.3.4 Procured HIV test kits and supplies

Activities with Milestones	Cambodia	Lao PDR	Viet Nam
		prevention into life skills primary school curriculum 2.3.7 Provided health check-ups for service women 2.3.8. Trained 95 laboratory staff	2.3.5 Provided VCT The program was succesfull completed and VCT activities are being sustained through VAAC
3. Component 3: Strengthened Regional Coordination for CDC 3.1 Hold yearly regional workshops of six MOHs and partners to discuss regional CDC. 3.2 Provide ongoing support for bilateral and regional cooperation in health. 3.3 Conduct policy dialogue and peer review on health laws and regulations according to regional agenda. 3.4 Develop joint implementation criteria for revised IHR for 2006–2008. 3.5 Carry out regional research activities on community action for HIV/AIDS prevention and care. 3.6 Conduct competitive funding for regional CDC consortia initiatives.	Regional Forums and Workshops (3.1, 3.2, 3.3) 3.1 Regional Project Workshops and Regional Steering Committee Meeting: Phnom Penh, 2006; Vientiane, 2007; Danang, 2008; Phnom Penh, 2009, conducted each year with particip[ation of the 6 GMS countries. 3.2 The regional coordination unit supported regional and cross-border dialogue including workshops and manual. Regional Health Forums: Vientiane, 2008; Guilin, 2009. Regional Research Symposium, Siem Reap, 2008; Regional Technical Forums: Dengue, Nha Trang, 2007; NTDs, Vientiane, 2008; Japanese Encephalitis, Hue, 2009; Regional Workshop on Legal Preparedness for Communicable Diseases Emergencies, Phnom Penh, 2009. Regional GMS Meeting on Human Resource Development for CDC, Phom Penh, 2009. Regional Meeting and Workshop on Cross-Border Collaboration: Hanoi, 2008; Danang, 2008 Regional Workshop on "*Introduction to Knowledge Management for Senior Ministry Managers*", Vientiane, 2009 3.3 International Federation of Red Cross and Red Crescent: *Legal Preparedness for Responding to Disasters and Communicable Disease Emergencies*. Published reports for Cambodia, Lao PDR, and Viet Nam, 2009. 3.4 Joint implementation criteria for IHR (3.4): countries provided peer review and mutual advice; no joint implementation criteria were prepared through the Mekong Basic Disease Surveillance Program (MBDS) and ASEAN 3.5 Hanoi University of Medical Sciences et al: *International Epidemiological Collaboration on Surveillance, Epidemiology and Prevention of HBV, HCV, HIV and Rabies in the GMS,* 2010; Hanoi School of Public Health et al: *HIV/AIDS Transmission at the Viet Nam-Lao Border Areas: Status and Solutions,* 2010. 3.6 Viet Nam National Institute of Malaria, Parasitology and Epidemiology et al 2010: *Study on the Prevalence of Soil-transmitted Helminthiasis and Anemia Status among Women of Child Bearing Age in Cambodia, Laos and Viet Nam.* 2010 Cambodia University of Health Sciences et al: *Cross-border Surveillance of Avian Influenza, Influenza-like Illness, and Dengue/ Dengue Hemorrhagic Fever along Cambodian and Viet Nam Borders, 2*010.		
Inputs ($ million)	**Cambodia**	**Lao PDR**	**Viet Nam**
ADB 29.47 WHO 0.90 Cambodia 1.72; Lao PDR 0.41; Viet Nam 1.90 Total: 34.40	ADB 8.77 WHO 0.27 Government 1.72 Total 10.76	ADB 5.92 WHO 0.18 Government 0.41 Total 6.51	ADB 14.78 WHO 0.45 Government 1.90 Total 17.13

AOP = annual operational plan, APSED = Asia Pacific Strategy for Emerging Diseases, ADB = Asian Development Bank, BCC = behavioral change communication, CDC = communicable disease control, CDCD = communicable diseases control department, CLV = Cambodia, Lao PDR, and Viet Nam; HAART = Highly Active Antiretroviral Therapy, HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome, HRD = human resource development, IEC = information, education and communication, IHR = International Health Regulations; IMR = infant mortality rate; Lao PDR = Lao People's Democratic Republic; LF = lymphatic filariasis, MDA = mass drug administration, MDG = Millennium Development Goal, MOH = Ministry of Health, NAHICO = National Avian and Human Influenza Coordination Office, NCLE = National Center for Laboratory and Epidemiology, NIMPE = National Institute of Malaria, Parasitology, and Epidemiology, NTD = neglected tropical diseases, OV = Opisthorchiasis, PCR = project completion report, QR = quarterly report, STH = soil-transmitted helminthiasis, U5MR = under-5 child mortality rate, UNAIDS = Joint United Nations Programme on HIV/AIDS, VAAC = Viet Nam Administration for HIV/AIDS Control, VCT = voluntary counseling and testing, VHW = village health worker, WHO = World Health Organization.
Source: Ministries of Health, Cambodia, the Lao PDR and Viet Nam, Asian Development Bank, World Health Organization.

List of Targeted Provinces

Provinces by Country	Target Group
Cambodia*	
Kampot	S&R, Dengue, NTD
Mondol Kiri	S&R, Dengue, NTD
Stung Treng	S&R, Dengue, NTD
Ratanak Kiri	S&R, Dengue, NTD
Takeo	S&R, Dengue, NTD
Lao PDR	
Attapeu	S&R, Dengue, NTD, HIV
Bolikhamsay	S&R, Dengue, NTD, HIV
Champasak	S&R, Dengue, NTD, HIV
Luang Prabang	S&R, Dengue, NTD, HIV
Oudamxay	S&R, Dengue, NTD, HIV
Savannakhet	S&R, Dengue, NTD, HIV
additional:	
Bokeo	HIV
Khammouane	S&R, HIV
Luang Namtha	S&R, HIV
Phongsaly	S&R, HiV
Saravane	S&R, HIV
Sayaboury	S&R
Vientiane Province	S&R
Vientiane Capital	S&R
Sekong	S&R
Viet Nam	
An Giang	S&R, Dengue, NTD, HIV
Ben Tre	S&R, Dengue, NTD, HIV
Can Tho	S&R, Dengue, NTD, HIV
Dak Lak	S&R, Dengue, NTD
Da Nang	S&R, Dengue, NTD, HIV
Hanoi	S&R, Dengue, NTD
Ha Tay	S&R, Dengue, NTD
Ha Tinh	S&R, Dengue, NTD, HIV
Kieng Giang	S&R, Dengue, NTD, HIV
Nghe An	S&R, Dengue, NTD, HIV
Quang Tri	S&R, Dengue, NTD, HIV
Tay Ninh	S&R, Dengue, NTD, HIV
Thanh Hoa	S&R, Dengue, NTD, HIV
Tra Vinh	S&R, Dengue, NTD, HIV
Dong Thap	S&R, Dengue, NTD, HIV

*HIV Supplies only.
HIV = human immunodeficiency virus, NTD = neglected tropical diseases, S&R = surveillance and response;
Source: Asian Development Bank.

List of Legal and Regulatory Documents
(G0027-VIE)

	Issued/ Promulgated by	Document
1	Twelfth National Assembly (2nd session)	Law on Prevention and Control of Infectious Diseases ref. 03/2007/QH12 (21 November 2007)
2	Government	Decree no.92/2010/ND-CP dated 30 August 2010 stipulating detailed implementation of the Law on Communicable Disease Control for bio-safety in laboratories (Instructions on Clause 2 under Article 24)
3	Government	Decree no.101/ND-CP dated 30 September 2010 stipulating detailed implementation of some Articles of the Law on Communicable Disease Control for measures of forced health isolation and other measures of epidemic control (Instructions on Clause 1 under Article 32 and Clause 2 under Article 52)
4	Government	Decree no. 103/ND-CP stipulating detailed implementation of some Articles of the Law on Communicable Disease Control for border health quarantine
5	Prime Minister	Decision no.56/2010/QD- TTg regulating authorization for establishing, organizing and operating the Steering Committees for Epidemic Control at all levels (instructions on Clause 4 under Article 46)
6	Prime Minister	Decision 64/2010/QD-TTg regulating the conditions for a declaration and announcement of the end to an epidemic
7	Prime Minister	Decision on policies for personnel working in the area of CDC and participants in epidemic control activities (ongoing)
8	MOH	Circular of the Ministry of Health issuing National Technical Standards on Hygiene in Communicable Disease Prevention in Education Facilities under national education system (instructions on Clause 3 under Article 13)
9	MOH	Circular issuing National Technical Standards on Hygiene in Construction (instructions on Clause 1 under Article 17)
10	MOH	Circular issuing Regulation on Information, Reporting and Reporting Forms for Communicable Diseases (instructions on Clause 6 under Article 22 and Clause 3 under Article 47)
11	MOH	Circular issuing "Technical Regulations on Communicable Disease Surveillance" (instructions on Clause 6 under Article 23);
12	MOH	Circular issuing "Regulation on Management of Specimen Samples and Conditions of Facilities Managing Specimen Samples Relating to Factors of Communication Disease Transmission" (instructions on Clause 3 under Article 25)
13	MOH	Circular stipulating list of communicable diseases, scope and targeted objects for obligatory use of vaccines and biologics (instructions on items (a), (b), (c) in Clause 2 under Article 30)
14	MOH	Circular regulating “the establishment, organization and operation of the Board of Experts as considering causes to complications due to use of vaccines, biologics” (instructions on Item (đ) Clause 2 under Article 30)
15	MOH	Circular issuing the list of group B communicable diseases requiring health isolation (instructions on Clause 1 under Article 49)
16	MOH	Circular issuing Regulation on location, design, conditions of facility, technical equipment and human resources of health facilities providing health services for communicable diseases (instructions on Clause 3 under Article 57 and Clause 3 under Article 17)

Summary of Training Courses and Workshops

Cambodia: Summary List of Training Courses and Workshops

Activity	Number of training courses or workshops	Cost ($)
Project Management Unit (PMU)	**18**	**14,854.66**
Project workshops	3	
AOP meetings/workshop	3	
English study	12	
National Malaria Center (CNM): Dengue and Parasitology	**173**	**1,164,276.90**
Workshop on dengue control	20	
Study tour on dengue control, Malaysia	1	
CLV symposium on emerging infectious diseases	1	
17th international conference on tropical medicine and malaria, Republic of Korea	1	
Symposium on geospatial disease control, PRC	1	
Training on dengue control	18	
Training on epidemiology and outbreak investigation	16	
Training on school health and dengue	31	
Training on dengue vector control	14	
Training on health education and outreach	18	
Training on clinical and nursing management of dengue	21	
Workshop on the control of lymphatic filariasis	2	
Workshop on the control of helminthiasis and other parasitic infections	1	
Training on control of helminthiasis and other parasitic infections	16	
Training on filariasis control	7	
Schistosomiasis control training	5	
Communicable Disease Control Department (CDCD)	**85**	**585,366.80**
Workshop on surveillance and response	3	
Workshop on Integrated Management of Childhood Illnesses	2	
Workshop on International Health Regulations	6	
Study tour of Cambodia quarantine delegation to PRC	1	
Workshop on quarantine	1	
Workshop on avian influenza and pandemic preparedness	11	
Workshop on health development for ethnic minorities	1	
Training on surveillance and response	6	
Training in international health regulations	9	
Training on quarantine	10	
Training on field epidemiology	5	
Training on integrated management of childhood illnesses	23	
English language training	7	
National Institute of Public Health (NIPH)	**35**	**116,971.98**
International study tour, PRC	1	
Workshop on laboratory improvement	1	
Workshop on hematology, Thailand	1	
Workshop on virology, Viet Nam	2	
Workshop on microbiology, Viet Nam	2	
Workshop on antibiotic susceptibility, Cambodia	1	
Workshop on quality control, Cambodia	1	
Workshop on laboratory planning, Cambodia	1	
Workshop on laboratory management system	1	
Workshop on laboratory monitoring and evaluation	1	
Training on quality control	2	
Training on diagnostic and testing procedures	9	
Meeting on national health research	1	
Training on database management	2	
Training on laboratory supervision	9	

Activity	Number of training or workshops	($)
Provincial training programs		**721,876.23**
Kampot province	34	114,977.79
Takeo province	39	151,724.61
Stung Treng province	34	54,649.89
Rattanakiri province	19	63,149.80
Mondulkiri province	26	57,458.96
Grand Total:		**3,045,307.62**

Source: MOH Cambodia

Lao PDR: List of Training Courses and Workshops

Training Activity	Participants			
	Planned	Actual	Female	Ethnic
Hematology course in provincial laboratories	50	56	42	1
Dengue, typhoid, hepatitis B and STI course for 4 districts	8	8	5	0
Training for district laboratories	10	9	4	0
Hematology and bacteriology training in Thailand for 3 months	2	2	2	0
Training of trainers on surveillance and response	18	75	35	0
Surveillance and response training for district and health center staff	325	628	261	87
Field epidemiology training program (FETP) in Thailand	4	4	1	0
Epidemiology and biostatistics course for provincial staff	15	18	2	0
Integrated training on preventive and curative treatments all levels	456	589	282	94
Training of quarantine staff on border health for 6 provinces.	30	16	6	0
Training on use of developed IEC material for provincial staff	116	39	19	0
CDC project management training for central and provincial hospitals	55	55	21	0
Awareness training for central and provincial hospital staff in 2 regions on nosocomial infection management in hospitals	100	65	31	20
Training for provincial health staff on BCC for at risk populations	48	48	28	9
Training for district health staff on BCC for at risk populations	290	318	148	63
Training of peer educators to conduct village focus group discussions on HIV/AIDS and STI in ethnic groups	1010	1000	315	416
Course for provincial and district staff on HIV/AIDS counseling and rapid test (advanced course)	387	339	204	63
Course on ARV/OI treatment guidelines and HIV/AIDS case management for provincial and district hospital staff	141	155	110	4
Training of trainers on surveillance, outbreak investigation and response	24	21	10	0
Training course on dengue fever surveillance for 12 provincial staff	24	24	10	0
Training for RRT district staff on surveillance, outbreak investigation and response	108	118	46	9
Course on basic epidemiology for district health staff	108	228	52	137
Course on hematology in Vientiane for 6 provincial laboratory staff	6	6	2	0
Course on bacteriology in Vientiane for 3 provincial laboratory staff	3	3	3	0
Course on laboratory diagnosis on dengue for 12 laboratory staff	12	17	11	0
Training VHV on unusual health events, basic surveillance and reporting, and integrated basic health care with focus on ethnic groups	1250	1196	299	474
Training on laboratory diagnosis of diarrhea and	15	15	9	0
Training on collecting samples, storage and transportation for avian influenza and other specimens in provincial laboratory	40	40	19	0
Training for provincial and district health staff on MDA for LF treatment at provincial level	20	20	8	0
Training on dengue case management for district hospital staff	345	340	161	18
Training on dengue vector surveillance for district staff	235	329	126	44
Training of trainers for dengue vector surveillance at central level	30	26	6	0
Community involvement in outbreak areas training of trainers	100	173	87	0
Training on CDC project activities management for district staff	221	290	136	74
Training of school teachers in the selected implementation areas	1080	483	270	31

Training Activity	Participants			
	Planned	Actual	Female	Ethnic
Training LWU women on control of dengue and parasitic diseases	460	388	374	58
Training of VHV to conduct group discussions on HIV/AIDS and STI for ethnic groups and young women in villages	870	261	156	105
Training school teachers at district level on Life skills education on reproductive health, HIV/AIDS/STI, drug use and dengue	1,035	188	63	7
Training for health center staff on surveillance and reporting system including dengue and diarrhea case management	435	122	30	25
Training for VHVs on unusual health events, basic surveillance and reporting, and integrated basic health care with focus on ethnic groups	1,040	473	93	346
Training on leptospirosis prevention and control, diagnostic and treatment in Kham District, Xienkouang	30	24	10	8
Training on program health mapping for 10 provincial staff.	28	15	8	0
Training on dengue case management and vector surveillance for health center staff	382	131	61	10
Training for district education manager and teachers of life skills education on reproductive health, HIV/AIDS/STI, drug use and dengue at the provincial level	357	80	37	18
Training for stakeholder staff on community involvement in outbreak areas through orientation on dengue vector control	685	37	23	0
Training on LF Control for VHVs in 23 villages at the district level	46	46	10	46
Total	**12,054**	**8,518**	**3,636**	**2,167**
Total cost of training: $634,201.38				

Workshop Activity	Participants			
	Planned	Actual	Female	Ethnic
Workshop: Review national strategic plan for surveillance	1	1	0	0
Annual planning workshop for SNIAs with participation of provinces in May 2007	1	1	0	0
Review and revise training modules on applied epidemiology and biostatics	1	1	0	0
Workshop on year 2 lessons learned and year 3 dissemination	80	56	10	0
Workshop on CDC project accounting for central and provincial staff at central	20	21	15	0
Dissemination workshop on quarantine for 6 provinces including border checkpoint at central	25	25	16	0
Participatory provincial assessments and integrated planning workshop on CDC for vulnerable groups at provincial levels (6 provinces)	250	138	68	0
Integrated year 3 dissemination workshop at provincial level with district staff (PIA provinces)	265	297	91	21
Integrated AOP Yr 4 planning workshop at central with 15 CDC provinces	80	80	25	0
Integrated AOP Yr 4 planning workshop at provincial level with district staff	265	211	63	3
Advocacy, consensus meetings on CDC strategies and on tools for integration at provincial level	205	81	24	11
Integrated Year 3 dissemination Workshop for AIDS/STI and dengue at provincial with district staff for provinces without PIA	107	132	55	30
Integrated AOP year 4 Planning Workshop for AIDS/STI and dengue at provincial with district staff for provinces without PIA	107	161	71	10
National Lessons Learned on rapid test for HIV at central level	40	65	32	0
National Joint Partners on AIDS and STI Forum (sharing by other partners)	60	60	25	0
PCCAs Meeting with local partners at province on AIDS/STI	285	180	72	12
DCCAs Meeting with local partners at district on AIDS/STI	83	64	9	5
Advocacy Meeting with partners on 100% condom use	490	231	86	10

Workshop Activity	Participants			
	Planned	Actual	Female	Ethnic
Advocacy Meeting with entertainment owners on 100% condom use	425	435	227	0
Village health committee meeting with district or/and health center staff on reporting unusual health events at community level	625	819	185	140
Year 3 dissemination Workshop at province with district staffs integrate with PCCA for provinces without PIA	117	120	43	6
AOP year 4 Planning Workshop at province with district staffs integrate with PCCA for provinces without PIA	117	128	0	0
Consensus meeting to develop additional curriculum on dengue vector control knowledge for school health program in selected districts in 6 high risk Dengue provinces	1	1	6	3
Production of curriculum material and monitoring tool for dengue school program pilot (including pretest)	1	1	0	0
Workshop on year 3 lessons learned and year 4 dissemination at central level with provincial and central agencies	68	43	12	0
Workshop on year 3 lessons learned and year 4 dissemination at central level with provinces without PIA	42	12	5	0
Integrated workshop on year 3 lessons learned and year 4 dissemination with provincial and district staff at provincial level	375	284	86	28
Workshop on sharing experiences concerning integration of project management between Champasak and Oudomxai provinces.	1	1	0	0
Workshop on sharing experiences regarding surveillance and reporting system, dengue vector control and case management with 6 southern provinces at Savannaket	1	1	0	0
Integrate workshop on year 3 lessons learned and year 4 dissemination for AIDS/STI and dengue at provincial level with district staff for provinces without PIA	55	72	22	37
DCCAs Meeting with local partners on AIDS/STI at district level	111	57	0	0
Advocacy workshop with provincial partners on 100% condom use	18	17	0	0
Advocacy Meeting with Entertainment owners on 100% CUP	18	10	0	0
Raising Awareness on HIV/AIDS/STI for LWU, LYU and other unions at district level and training in health education and group discussion	560	320	152	88
Workshop on life skills education on reproductive health, HIV/AIDS/STI, drug use and dengue with provincial education manager and senior teachers at central level	42	38	23	0
Village health committee workshop with district or/and health center staff on reporting unusual health events at community level	625	279	130	109
Advocacy and lessons learned workshop on dengue control for provinces, districts and hot villages at provincial level.	507	482	126	74
Integrated workshop on year 3 lessons learned and year 4 dissemination for AIDS/STI and dengue at provincial with district staff for provinces without PIA	80	110	42	0
MDA workshop for Schistosomiasis and OV in Champasak	30	55	8	2
Total	**6,184**	**5,090**	**1,729**	**589**
Total Cost of Workshops: $614,916.54				

AIDS = acquired immunodeficiency syndrome, AOP = annual operational plan, BCC = behavioral change communication, CDC =communicable diseases control, DCCA = district committee for the control of AIDS, HIV = human immunodeficiency virus, IEC = information, education, and communication, LF = lymphatic filiriasis, LYU = Lao Youth Union, LWU = Lao Women's Union, MDA = mass drug administration, OI = opportunistic infections, OV = Opisthorchiasis, PCCA = provincial committee for the control of AIDS, PIA = provincial imprest account, RRT = rapid response team, STI = sexually transmitted disease, VHV = village health volunteer.
Source: MOH, the Lao PDR.

Viet Nam: Summary List of Training Courses and Workshops

Implementation Unit	Training/Workshop	Year	($)
Vietnam Administration of HIV/AIDS Control	Planning workshops (central, provincial and year-end)	2007	18,000.0
	Planning workshop (central and provincial)	2008	10,000.0
	Final workshop	2009	7,846.6
National Institute of Hygiene and Epidemiology (NIHE)	Training on CDC surveillance and response methods for provincial health staff	2007	11,950.0
	TOT courses on IEC, health education and disease surveillance skills at NIHE/Pasteur institutes (provinces, districts)		3,000.0
	National training course for enhancing CDC surveillance and response skills		17,500.00
	Developing IMCI training materials for village health staff		1,207.0
	Pilot training program on IMCI for village health staff		8,500.0
	Evaluating pilot training program		1,850.4
	Developing, piloting, and evaluating IMCI training materials;		2,756.0
	Developing, piloting, and evaluating effectiveness of IMCI training program for medical students		
	Workshop on uniform technical content revision		3,317.7
	Training for provincial and district health staff (supervision)		40,909.4
	Training on surveillance, investigation of outbreaks, situation analysis, and report writing for NIHE staff		18,500.0
	Piloting IEC model of Japanese encephalitis control		7,598.0
	Evaluating effectiveness of IEC model of Japanese encephalitis control at some endemic areas in 4 project provinces		810.5
	5 training courses on subject investigation		9,481.5
	25 training courses on implementation of vaccination		27,315.0
	Training on CDC surveillance and response methods for provincial health staff	2008	3,500.0
	5 training courses on basic laboratory skills for health quarantine staff in the southern provinces		15,000.0
	Developing, piloting, and evaluating IMCI training materials		10,000.0
	4 training courses for district health staff as IMCI supervisors		24,933.5
	14 training courses for supplementary IMCI commune health staff for project provinces		110,000.0
	16 training courses for village health workers on IMCI on applying newly prepared materials		40,000.0
	Training for preventive health staff at provincial level on the surveillance content of EWARS		5,000.0
	Workshop on project implementation for PPMUs	2009	14,319.9
	Training on surveillance		16,834.1
	Training for health workers in village on IMCI and evaluating effectiveness of applying IMCI to child care		47,000.0
	Short-term training on IMCI for commune health staff		35,000.0
	Organizing 16 courses on implementing the third injection of JE vaccine in 5 districts in 2 provinces of Thanh Hoa and Ha Tinh		17,000.0

Implementation Unit	Training/Workshop	Year	($)
Pasteur Institute, Ho Chi Minh City	Training on CDC surveillance and response methods for district health staff for staff from the South	2007	4,750.0
	TOT course on IEC, health education and disease surveillance skills at NIHE/Pasteur institutes (provinces, districts)l		3,000.0
	7 training courses for enhancing CDC surveillance and response skills for provincial and district health staff		23,200.3
	2 workshops on community-based dengue control model development		8,000.0
	Study tour to community-based dengue control model in Ben Luc district, Long An province		7,700.0
	Training on supervision, control of dengue for provincial and district health staff		9,200.0
	Training course on outbreak investigation for provincial and district health staff		9,200.0
	Training course on dengue control communication for provincial and district health staff		9,200.0
	Workshop on implementation of model		15,600.0
	7 Training courses on surveillance, investigation of outbreaks, situation analysis, and report writing		24,799.9
	Training on CDC surveillance and response methods for provincial health staff	2008	4,500.0
	7 training courses on basic laboratory skills for health quarantine staff		21,000.0
	Training on surveillance, investigation of outbreaks, situation analysis, and report writing		8,000.0
	Training on supervision, control of dengue for provincial and district health staff		7,500.0
	Training course on outbreak investigation for provincial and district health staff		7,500.0
	Training course on dengue control communication for provincial and district health staff		10,000.0
	Summarizing workshop for provinces implementing model		10,000.0
	Training for preventive health staff at provincial level on the surveillance content of EWARS		6,000.0
	Advanced training on outbreak investigation for preventive medicine staff in districts and provinces	2009	11,200.0
	Workshop on project implementation at PPMUs		14,500.0
	Training on surveillance		23,567.7
	Organizing 2 training courses on GIS for preventive medicine staff of 20 Southern provinces		11,191.7
National Institute of Malaria, Parasitology, and Epidemiology (NIMPE)	TOT course on IEC for health staff at provincial level	2007	10,000.0
	22 training courses on IEC for village health staff		15,000.2
	Training courses on communication skills for project staff (1 class x 144 people)		8,900.0
	3 training courses on communication skills in Khanh Hoa, Ninh Thuan and Ha Male	2008	20,000.0
	Training for staff of new districts in 15 provinces on IEC for helminthiasis control		11,700.0
	Training for commune health staff on IEC for helminthiasis control		9,807.0

Implementation Unit	Training/Workshop	Year	($)
Pasteur Institute of Nha Trang	Course on IEC, health education and disease surveillance skills at Quang Tri and Da Nang	2007	1,484.5
	2 training courses for enhancing CDC surveillance and response skills for provincial and district health staff at Quang Tri and Da Nang		6,973.0
	2 training courses on surveillance, investigation of outbreaks, situation analysis, and report writing for provincial and district staff at Quang Tri and Da Nang		7,369.0
	TOT course on IEC skills, health education and diseases surveillance	2008	2,000.0
	2 training courses on basic lab skills, taking, maintaining and transporting medical specimens for district preventive medicine health staff		6,000.0
	Training course for district preventive medicine staff on the surveillance content of EWARS		3,500.0
	Advanced training on outbreak investigation skills for preventive health staff	2009	9,800.0
	Training on surveillance		6,733.6
	Training course on surveillance in EWARS for provincial staff		1,000.4
Tay Nguyen (Central Highlands) Institute of Hygiene and Epidemiology	4 TOT courses on IEC, health education and disease surveillance skills at NIHE/Pasteur institutes	2007	987.0
	Training course for enhancing CDC surveillance and response skills for Dak Lak		3,486.0
	Training on surveillance, investigation of outbreaks, situation analysis, and report writing		3,660.5
	Training course on CDC surveillance and response methods for provincial health staff	2008	1,500.0
	Training course on basic lab skills for health quarantine staff		3,000.0
	Training for preventive health staff at provincial level on the surveillance content of EWARS		3,000.0
	Training on surveillance	2009	3,366.8
	Training for professional staff of the Tay Nguyen Institute and provinces in the highlands on the surveillance content of EWARS		4,680.0
15 provinces	Training courses on CDC surveillance and response methods for commune health staff	2007	67,618.0
	Training courses on IEC, health education, and disease surveillance skills for commune health collaborators		149,855.9
	Training course on basic lab skills for district preventive medicine staff		47,229.2
	Training course on diagnosis and treatment of AI/(H5N1), dengue for provincial and district doctors		36,791.6
3 provinces	Training courses on IMCI skills for commune health staff	2007	156,700.8
4 provinces	IMCI training for district health staff		117,537.5
3 provinces	IMCI training of trainers course for district health staff		9,135.9
4 provinces	Implement model of Japanese encephalitis control in some project provinces		26,234.2
5 provinces	Training courses on CDC response simulation exercise implementation		42,947.3
7 provinces	Training courses on supervision, control of dengue for commune staff (health staff , collaborator)		42,050.0
6 provinces	Training courses on outbreak investigation for commune staff (health staff, collaborator)		35,900.0
6 provinces	Training course on HIV/AIDS and harm reduction for volunteers		12,000.0
	Training course on HIV/AIDS and harm reduction for peer educators		12,000.0

Implementation Unit	Training/Workshop	Year	($)
5 provinces	Training courses on communication knowledge and skills on home and community-based health care	2007	130,121.2
6 provinces	Training courses on dengue control communication for commune staff (health staff, collaborator)		36,150.0
6 provinces	IEC activities of volunteers, peer educators towards prostitutes, workers, drivers and cross-border people		13,420.5
	Dissemination workshop on project activities in project provinces		9,000.0
	Planning/end-year workshop in provinces		11,300.0
	Create STIs clinic network		13,200.0
	Create voluntary counseling and testing network		12,440.0
Ben Tre	Dengue control strategy, community mobilization		3.524,0
15 provinces	Training for preventive health staff at commune level on the surveillance content of EWARS	2008	45,000
15 provinces	Training courses for commune collaborators on IEC and diseases surveillance skills		140,000.0
15 provinces	Training course for commune health staff on epidemic surveillance and response methods		37,050.0
15 provinces	Workshop on project planning and implementing for CPMU and project provinces		54,000.0
3 provinces	Implementing JE prevention and model in the provinces		14,573.4
15 provinces	Training for commune health staff on IEC skills for helminth prevention and control		63,000.0
5 provinces	Training for health collaborators on knowledge and skills of home- and community-based health care (540 collaborators/ provinces)		93,330.0
Hanoi, Nghe An,	Training for commune staff on communication skills worm disease prevention education in all communes		14,850
6 provinces	Conference on local project activity plan		12,000.0
	Training for staff of STIs clinics		13,200.0
	Training for staff of VCT sections		13,200.0
Hanoi	IMCI implementation monitoring in provinces		10,000.0
5 provinces	Implementing epidemic response exercises		45,292.0
Nghe An	Training on JE diagnostic, treatment and surveillance		4,909.2
Quang Tri	Training for commune health staff on communication and education STH prevention skills in 10 districts		4,500.0
	Develop and finalize model of early warning and response system		2,850.0
7 provinces	Training courses for commune health staff and collaborators on dengue surveillance and prevention		42,000.0
	Training courses for commune health staff and collaborators on small outbreaks investigation and treatment		42,000.0
	Training courses for commune health staff and collaborators on dengue prevention and control communication		42,000.0
15 provinces	Training for health collaborators on IEC skills and health education and disease surveillance	2009	112,500.0
	Workshop on project implementing and reporting for PPMUs		75,000.0
	Advanced training on outbreak investigation for preventive medicine staff in districts and communes		52,500
5 provinces	Dissemination workshop on Law on Communicable Diseases Control		16,006.4
Hanoi, Thanh Hoa	Organize CDC and epidemic control activities in localities		21,500.0
7 provinces	Training on dengue fever		119,000.0
Hanoi	Training for health staff on rabies prevention		6,000.0
Thanh Hoa	Training course on diagnosis and treatment acute diarrhea		2,764.1

Implementation Unit	Training/Workshop	Year	($)
Quang Tri, Dak Lak	Training for commune health staff on skills for management and surveillance of communicable diseases in children in the open vaccination program	2009	24,000.0
	Training on basic lab skills in laboratory of bacterial pathogenesis for preventive medicine staff of all districts		12,000.0
	Training on diagnosis and treatment of some new emerging epidemics for provincial and district health staff		16,582.0
Da Nang	Training on influenza type A/H1N1 surveillance and prevention		3,000.0
Da Nang, Can Tho	Training on Dengue surveillance and prevention		8,840.2
Dak Lak	Training on influenza A/H1N1 and diarrhea prevention		1,700.00
An Giang, Dong Thap	Training courses on dengue control communication for commune staff (health staff, collaborator)		11,069.2
5 provinces	Training courses for health staff, collaborators, teachers on dengue control communication		27,442.5
5 provinces	Training for commune health staff on outbreak investigation and handling		27,395.0
Ben Tre	Training on communicable disease surveillance and control and surveillance content of EWARS for staff of non-project districts		6,000.0
Can Tho	Training courses in surveillance, investigation and handling Influenza A/H1N1 for CDC mobile teams		4,030.0
Kien Giang	Evaluating the effects of the implementation of EWARS		5,927.6
Dak Lak	Training courses on prevention and control of A/H1N1 and IEC for CDC activities	2010	5,381.7
An Giang	Training on surveillance and prevention of A/H1N1 for preventive medicine staff at district and commune levels		5,924.2
Ben Tre	Training courses for collaborators and commune health workers in non-project provinces on dengue prevention and control measurement		5,556.7
	Enhanced training on CDC surveillance and epidemic prevention at commune level		3,355.0
Dong Thap	Training on dengue treatment for provincial and district staff		6,732.0
Kieng Giang	Training on small outbreak containment for preventive medicine staff at district level		2,324.3
Project Management Unit	Develop proposal of integrated model of CDC programs	2007	9,000.0
	Survey and evaluation of collaboration among public and private health units in CDC at provincial and district levels		3,803.8
	Evaluation workshop on the process of implementing the health quarantine system and the functions and duties		9,855.0
	Training on basic laboratory skills for health quarantine staff		32,250.0
	Training on basic lab skills for district preventive medicine staff		11,875.0
	Workshop on model development for integrated CDC		3,000.0
	Workshop on pilot model evaluation		5,000.0
	Workshop on development of a mechanism to strengthen collaboration between public and private health units on CDC		4,000.0
	Evaluation workshop on EWARS		7,000.0
	TOT for enhancing CDC surveillance and response skills		10,000.0
	Training course on GIS and related software		19,000.0
	National workshop on EWARS experience		12,500.0
	Training on health quarantine management for staff of international health quarantine system		28,500.0
	Workshop on CDC activities with related ministries and sectors: Ministries of Education and Training, Defense, Public Security, and Communication and Transportation'; Women's Union, Red Cross Union, Youth Union		22,200.0
	Training on health quarantine and quarantine regulations		47,500.0
	Training on basic laboratory skills for health quarantine staff		33,250.0

Implementation Unit	Training/Workshop	Year	($)
Project Management Unit	Training course for project officers (in the United States)		57,000.0
	Training on communicable disease surveillance planning		50,000.0
	National workshop on EWARS experience	2008	12,500.0
	Training on testing - water and food testing		17,200.0
	Training on testing - basic testing skills		16,050.0
	Training courses on dengue diagnosis and treatment		22,327.0
	Workshop on activity plan agreement		12,000.0
	Training for project implementing staff		11,875.0
	Training for preventive health staff at central and provincial levels on surveillance content of EWARS		20,000.0
	Preliminary workshop on project activities (CPMU)	2009	13,000.00
	Summarizing workshop on project activities (CPMU)		16,350.0
	Workshop on implementing the project (CPMU)		11,875.3
	Training courses on the manual for ELISA (enzyme-linked immunosorbent assay) test distributed to 15 PPMUs	2010	31,468.7
	TOTAL		3,730,984.60

A/H1N1 = swine flu, AIDS = acquired immunodeficiency syndrome, CDC = communicable diseases control, CPMU = central project management unit, EWARS = early warning and response system, GIS = geographic information system, HIV = human immunodeficiency virus, IEC = information, education, and communication, IMCI = integrated management of childhood illnesses, JE = Japanese encephalitis, MOET = Ministry of Education and Training, Viet Nam, NIHE = National Institute of Hygiene and Epidemiology, Viet Nam, PPMU = provincial project management unit, STI = sexually transmitted infections, STH = soil transmitted helminthes, TOT = training of trainers.
Source: Asian Development Bank.

Regional List of Training Courses, Workshops, and Studies

Activity	Cambodia	Lao PDR	Vietnam	Total
	($)			
GMS Public Health Forum	35,964.04	17,064.58	48,112.57	101,141.19
Regional Dengue Forum	8,397.04	5,598.04	13,995.10	27,990.18
Helminth Forum	6,179.40	4,119.60	10,299.50	20,598.50
Regional Cross-Border Workshop	11,410.82	7,583.80	18,959.49	37,954.11
Symposium on Emerging Infectious Diseases	7,630.20	5,086.80	12,717.00	25,434.00
Forum on Japanese Encephalitis	5,088.30	3,392.20	8,480.50	16,961.00
Various workshops and trainings	97,460.81	29,932.78	74,725.71	202,119.30
Regional Workshops/Steering Committee Meetings	16,645.88	11,097.24	27,743.13	55,486.25
Regional Small-Scale Operational Studies	2,677.80	1,785.20	4,463.00	8,926.00
Regional Study (UHSC)	15,300.00	10,200.00	59,500.00	85,000.00
Regional Study (NIMPE)	25,500.00	17,000.00	42,500.00	85,000.00
Regional Study (HSPI)	25,200.00	16,800.00	42,000.00	84,000.00
Regional Study (HMU)	24,600.00	16,400.00	41,000.00	82,000.00
Legal Preparedness Study (IFRCRC)	18,053.70	12,035.80	30,089.50	60,179.00
Total	**300,107.99**	**158,096.04**	**434,585.50**	**892,789.53**

HMU = Ha Noi Medical University; IFRCRC = International Federation of the Red Cross and the Red Crescent; NIMPE = National Institute of Malaria, Parasitology, and Epidemiology; UHSC = University of Health Science Cambodia; HSPI = Health Strategy and Policy Institute, Vietnam.
Source: Asian Development Bank.

Project Implementation Schedule
G0025-CAM

Outputs	2006				2007				2008				2009				2010			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
A. Surveillance and Response																				
1. Institutional Structures, Partnerships, and Policies Strengthened																				
Provision of Required Legislation for Health System		P																		
			A																	
2. S&R, and Preparedness System Strengthened																				
Review of National S&R System		P																		
			A																	
Pilot-Testing of Integrated S&R Systems				P																
					A															
Feasibility Study for Contingency Fund		P																		
			A																	
Establishment of Outbreak Investigation Contingency Fund				P																
				A																
3. Laboratory Facilities and Services																				
Equipment Procurement Planning	P																			
			A																	
Procurement of Laboratory Equipment			P																	
						A														
4. Human Resource Development																				
GIS Development and Training			P																	
FETP and Graduate-Level Training			P																	
Health Center Staff Training			P																	
					A															
B. CDC for Vulnerable Groups																				
1. Integrated CDC Planning and Management																				
Training Materials Development		P																		
				A																
Integration and Provision of PHC Training				P																
				A																
Training and Support for CDC Planning				P																
				A																
2. Control of Selected Diseases																				
Dengue Clinical Management			P																	

Outputs	2006				2007				2008				2009				2010			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Dengue Vector Control			A P																	
Dengue Community Control			A P																	
Helminth IEC			A P																	
Helminth Control			A P																	
Control of Neglected Diseases			A P																	
3. HIV/AIDS in Mobile Populations			A																	
Preparation of BCC Programs		P	A																	
Training of STI Health Workers				P A																
Procurement of STI Drugs	P				A															
C. Regional Collaboration and Project Management																				
1. Regional Coordination for Dialogue on CDC			P A																	
2. Regional Operations Research/Linkages																				
Regional Research on HIV/AIDS			P A																	
Regional CDC Consortia Initiatives		P A																		
3. Project Management																				
Establishment of National Committees	P A																			
Quarterly Reporting	P																			
Monitoring and Evaluation	P		A																	
			A																	

A = actual; BCC = behavioral change communication; CDC = communicable disease control; FETP = Field Epidemiology Training Program; GIS = geographic information system; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; IEC = information, education, and communication; P = planned; PHC = primary health care; Q = quarter; S&R = surveillance and response; STI = sexually transmitted infection.
Source: Asian Development Bank.

G0026-LAO

Outputs	2006				2007				2008				2009	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
A. Surveillance and Response														
1. Institutional Structures, Partnerships and Policies Strengthened														
Provision of Required Legislation for Health System		P A												
2. S&R, and Preparedness System Strengthened														
Review of National S&R System		P A												
Pilot-Testing of Integrated S&R Systems			P A											
Feasibility Study for Contingency Fund		P A												
Establishment of Outbreak Investigation Contingency Fund			P A											
3. Laboratory Facilities and Services														
Equipment Procurement Planning	P A													
Procurement of Laboratory Equipment			P A											
4. Human Resource Development														
GIS Development and Training			P A											
FETP and Graduate-Level Training			P A											
Health Center Staff Training			P A											
B. CDC for Vulnerable Groups														
1. Integrated CDC Planning and Management														
Training Materials Development		P A												
Integration and Provision of PHC Training			P A											
Training and Support for CDC Planning			P A											
2. Control of Selected Diseases														
Dengue Clinical Management			P A											
Dengue Vector Control			P A											
Dengue Community Control			P A											

Outputs	2006				2007				2008				2009	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Helminth IEC			P A											
Helminth Control			P A											
Control of Neglected Diseases			P A											
3. HIV/AIDS in Mobile Populations														
Preparation of BCC Programs		P A												
Training of STI Health Workers				P A										
Procurement of STI Drugs	P A													
C. Regional Collaboration and Project Management														
1. Regional Coordination for Dialogue on CDC			P A											
2. Regional Operations Research/Linkages														
Regional Research on HIV/AIDS			P A											
Regional CDC Consortia Initiatives		P A												
3. Project Management														
Establishment of National Committees	P A													
Quarterly Reporting	P A													
Monitoring and Evaluation	P A													

A = actual; BCC = behavioral change communication; CDC = communicable disease control; FETP = Field Epidemiology Training Program; GIS = geographic information system; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; IEC = information, education, and communication; P = planned; PHC = primary health care; Q = quarter; S&R = surveillance and response; STI = sexually transmitted infection.
Source: Asian Development Bank.

G0027-VIE

Outputs	2006				2007				2008				2009	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
A. Surveillance and Response														
1. Institutional Structures, Partnerships and Policies Strengthened														
Provision of Required Legislation for Health System		P												
				A										
2. S&R, and Preparedness System Strengthened														
Review of National S&R System		P												
				A										
Pilot-Testing of Integrated S&R Systems				P										
							A							
Feasibility Study for Contingency Fund		P												
			A											
Establishment of Outbreak Investigation Contingency Fund				P										
					A									
3. Laboratory Facilities and Services														
Equipment Procurement Planning	P													
				A										
Procurement of Laboratory Equipment			P											
							A							
4. Human Resource Development														
GIS Development and Training			P											
									A					
FETP and Graduate-Level Training			P											
Health Center Staff Training			P											
							A							
B. CDC for Vulnerable Groups														
1. Integrated CDC Planning and Management														
Training Materials Development		P												
				A										
Integration and Provision of PHC Training				P										
							A							
Training and Support for CDC Planning				P										
							A							
2. Control of Selected Diseases														
Dengue Clinical Management			P											
								A						
Dengue Vector Control			P											
							A							
Dengue Community Control			P											
							A							

Outputs	2006				2007				2008				2009	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
Helminth IEC			P		A		A							
Helminth Control			P		A									
Control of Neglected Diseases			P		A									
3. HIV/AIDS in Mobile Populations														
Preparation of BCC Programs		P						A						
Training of STI Health Workers				P				A						
Procurement of STI Drugs	P									A				
C. Regional Collaboration and Project Management														
1. Regional Coordination for Dialogue on CDC			P											
				A										
2. Regional Operations Research/Linkages														
Regional Research on HIV/AIDS			P											
Regional CDC Consortia Initiatives		P												
3. Project Management														
Establishment of National Committees	P													
		A												
Quarterly Reporting	P													
					A									
Monitoring and Evaluation	P													
				A										

A = actual; BCC = behavioral change communication; CDC = communicable disease control; FETP = Field Epidemiology Training Program; GIS = geographic information system; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome; IEC = information, education, and communication; P = planned; PHC = primary health care; Q = quarter; S&R = surveillance and response; STI = sexually transmitted infection.
Source: Asian Development Bank.

Status of Compliance with Grant Covenants
G0025-CAM

Covenant	Reference in Grant Agreement	Status of Compliance
Project Management and Implementation MOH shall be the Project Executing Agency. CDCD shall be the implementing agency. The Project shall be implemented through HSSP for national health development.	GA, Sch 5, Para. 1	**Complied with.**
The Health Sector Steering Committee for HSSP shall be responsible for reviewing the Project's progress and guiding its implementation. The Health Sector Steering Committee shall be headed by MOH and comprise the Secretary General for Finance of the Ministry of Economy and Finance, two Secretaries of State in MOH, two Directors General and the Project Coordinator of HSSP. The Steering Committee meetings shall be held on a semi-annual basis.	GA, Sch 5 Para. 2	**Substantially complied with.**
The PMU, established under HSSP, shall include a project manager, project accountant and project procurement specialist. The Director of CDCD shall serve as the project manager, and be assisted by three counterparts in CDCD, the Director of the National Center for Parasitology, Entomology and Malaria Control, the Director of the National Institute of Public Health and the Director of the National Center for HIV/AIDS, Dermatology and Sexually Transmitted Diseases Control. The project manager shall hold monthly project meetings to review implementation and reports and agree on the workplan for the next month. At provincial level, selected activities shall be implemented by a focal group in the provincial health departments. The Recipient shall cause its interministerial task force for avian influenza, chaired by the Ministry of Agriculture and Forestry and Fisheries, and a government-donor technical coordination committee to guide Project activities.	GA, Sch. 5 Para. 3	**Complied with.**
The Recipient shall ensure that the Project is implemented based on the Project's national AOPs. CDCD shall prepare the national AOPs to be submitted to the Health Sector Steering Committee for approval, and further submit, no later than 31 January of each year, the approved national AOPs to ADB for concurrence. The national AOPs shall be based on AOPs submitted by the Project provinces and national programs for CDC including Dengue, HIV/AIDS and endemic diseases, covering all Project activities with correspondent budget.	GA, Sch 5 Para. 4	**Complied with.**
The regional steering committee, which is advisory in nature, shall meet annually, which meetings will be hosted by one of the Participating Countries. The regional steering committee shall be chaired by the Minister or Vice Minister of the host country's Ministry of Health, and comprise leading representatives from the Project steering committees of the Participating Countries, project staff, and ADB and WHO representatives. An RCU shall be established in Hanoi and managed by ADB, and funded by the Pooled Fund. The RCU shall be responsible for regional coordination including liaison with stakeholders, data and document collection, support of international consultants, provision of logistic support, and organization of Project regional workshops/meetings.	GA, Sch 5 Para. 5	**Complied with.**

Covenant	Reference in Grant Agreement	Status of Compliance
Financing by the Pooled Fund The Pooled Fund shall be used for financing (i) the regional steering committee including technical forums, regional workshop; (ii) the RCU including engaging regional coordination consultants; (iii) international technical consultants; and (iv) regional studies and Project cross-border activities. The regional steering committee and RCU shall be financed on the basis of the ratio 30:20:50 for Cambodia, Lao PDR and Viet Nam, respectively.	GA, Sch 5 Para. 6	**Complied with.**
The International technical consultants whose areas of expertise are referred to in Paragraphs 1(a), (f) and (g) of Schedule 4 of the Grant Agreement (Surveillance and response, Dengue fever, Endemic disease) shall be engaged through, and managed by, WHO. Such consultants shall be financed out of the Pooled Fund, representing $480,000 from the Recipient's grant proceeds, $320,000 from Lao Grant proceeds, and $800,000 from Viet Nam Grant proceeds pursuant to a project implementation agreement to be entered into between ADB and WHO.	GA, Sch 5 Para. 7	**Complied with.**
Regional studies and Project cross-border activities shall be decided and financed on a case-by-case basis by the Participating Countries through the regional steering committee	GA, Sch 5 Para. 8	**Complied with.**
Surveillance and Response The Recipient shall ensure that the Project surveillance and response activities are technically sound, sustainable, participatory and in accordance with the IHR 2005.	GA, Sch 5 Para. 9	**Complied with.**
Integrated CDC The Recipient shall ensure that the Project activities at provincial level are implemented in a manner that supports mainstreaming CDC in the general provincial health services. By 30 June 2006, MOH and the Project provinces shall prepare, and submit to ADB for approval, implementation plans for integrated CDC in the Project provinces. By 31 January of each year of the Project period, MOH shall submit to ADB annual updates on changes to the integrated CDC plans, if there are any changes to the plans. Within one year of the Effective Date, all Project provinces shall implement the initial plans.	GA, Sch 5 Para. 10	**Complied with.**
HIV/AIDS Control The Recipient shall ensure that the HIV/AIDS activities will be planned in consultation with the HIV/AIDS national steering committee and coordinated through provincial HIV/AIDS committees and provincial health committees. The Recipient shall further ensure that targeted high risk groups will be educated on how to prevent HIV/AIDS.	GA, Sch 5 Para. 11	**Complied with.**
Counterpart Funds The Recipient shall ensure that all necessary counterpart funds for Project implementation are provided in a timely manner and to such end, the Recipient shall make timely submissions of annual budget appropriation requests and take all other measures necessary or appropriate for prompt disbursement of appropriate funds during each year of the Project implementation.	GA, Sch 5 Para. 12	**Complied with.**

Covenant	Reference in Grant Agreement	Status of Compliance
Ethnic Minority Development Plan The Recipient shall ensure that a national ethnic minority development plan will be prepared by MOH based on the general guidelines set forth in the agreed project Ethnic Minority Development Plan, and will be implemented in a timely manner and have resources to increase the quality of, and access to, health services received by ethnic minorities.	GA, Sch 5 Para. 13	**Partially complied with.** The EMDP was prepared late and only partly implemented. In particular, recording of ethnic minority benefits was weak.
Gender Action Plan The Recipient shall ensure that a national gender action plan will be prepared by MOH based on the general guidelines set forth in the agreed project Gender Action Plan. The gender action plan shall be implemented in a timely manner, and have adequate resources allocated for both its preparation and implementation.	GA, Sch 5 Para. 14	**Partially complied with.** The GAP was prepared late and only partly implemented. In particular, recording of gender benefits was weak.
Resettlement The Recipient shall screen all proposed civil works and ensure that involuntary resettlement impacts are avoided. If any involuntary resettlement is unavoidable, the Recipient shall prepare a resettlement plan in accordance with ADB's Policy on Involuntary Resettlement and submit it to ADB for approval prior to commencing land acquisition activities. The Recipient shall ensure that the resettlement plan will include detailed measurement surveys, compensation unit rates based on replacement cost surveys for all categories of losses and allowances and a final database of affected persons.	GA, Sch 5 Para. 15	**Complied with.** No resettlement was involved.
Environment The Recipient shall ensure that the operation of all health facilities will comply with all the Recipient's applicable laws and regulations, ADB's Environment Policy of 2002, the summary initial environmental examination and environmental management plan.	GA, Sch 5 Para. 16	**Complied with.**
Operation and Maintenance The Recipient shall ensure that annually adequate budget is made available to the Project provinces for the operation and maintenance of project facilities during and after the Project.	GA, Sch 5 Para. 17	**Complied with.**
Procurement All major contract variations will need ADB's prior approval.	GA, Sch 3 Para. 2	**Complied with.**

Covenant	Reference in Grant Agreement	Status of Compliance
Financial The Recipient shall (i) maintain, or cause to be maintained, 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 9 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the reports of the auditors relating thereto (including the auditor's opinion on the use of the Grant Proceeds and compliance with the financial covenants of this Grant Agreement as well as on the use of the procedures for imprest accounts/statement of expenditures), all in the 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**.**	GA, Article IV Section 4.02 Para. (a)	**Partially complied with.** Audit reports were often 1–3 months late; because of the type of project, auditing takes time, with multiple small expenditures and scattered locations. There were no imprest or SOE issues. Liquidation of pooled funds took time because receipts were misplaced in ADB.
The Recipient shall enable ADB, upon ADB's request, to discuss the Recipient's financial statements for the Project and its financial affairs related to the Project from time to time with the Recipient's auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB, provided that any such discussion shall be conducted only in the presence of an authorized officer of the Recipient unless the Recipient Nam shall otherwise agree.	GA, Article IV Section 4.02 Para. (b)	**Complied with.**
The Recipient shall enable ADB's representatives to inspect the Project, the goods financed out of the proceeds of the Grant, and any relevant records and documents.	GA, Article IV Section 4.03	**Complied with.**

AOPs = annual operational plans, CDC = communicable diseases control, CDCD = communicable diseases control department, EMDP = Ethnic Minority Development Plan, HSSP = Health Sector Support Program, IHR = International Health Regulations, MOH = Ministry of Health, PMU = project management unit, RCU = regional coordination unit;
Source: Asian Development Bank.

Status of Compliance with Grant Covenants
G0026-LAO

Covenant	Reference in Grant Agreement	Status of Compliance
Project Management and Implementation MOH shall be the Project Executing Agency. DHP shall be the implementing agency. The National Center for Laboratory and Epidemiology, the National Center of Malariology, Parasitology, and Entomology, the Center for HIV/AIDS/STI and the Project provinces shall cooperate with the implementing agency.	GA, Sch 5, Para. 1	**Complied with.**
The MSC shall be responsible for reviewing the Project's progress and guiding its implementation. The PSC shall be headed by the Minister of Health and comprise the directors of MOH's departments, the Ministry of Finance, the Ministry of Foreign Affairs and the Committee for Planning and Investment. The MSC meetings shall be held at least on a quarterly basis, or as required.	GA, Sch 5 Para. 2	**Complied with.**
The PMU shall be established in DPB. The Deputy Director General of DHP shall be the project director, and be assisted by a deputy project director. The directors of the National Center for Laboratory and Epidemiology, the National Center of Malariology, Parasitology, and Entomology, and Center for HIV/AIDS/STI, and the Project provinces shall be responsible for implementing relevant project activities. At provincial level, selected activities shall be implemented by the provincial health offices.	GA, Sch. 5 Para. 3	**Complied with.**
The Recipient shall ensure that the Project is implemented based on the Project's national AOPs. DHP shall prepare the national AOPs to be submitted to the MSC for approval, and further submit, no later than 31 January of each year, the approved national AOPs to ADB for concurrence. The national AOPs shall be based on AOPs submitted by the Project provinces and national programs for CDC including Dengue, HIV/AIDS and endemic diseases, covering all Project activities with corresponding budget.	GA, Sch 5 Para. 4	**Complied with.**
The regional steering committee, which is advisory in nature, shall meet annually, which meetings will be hosted by one of the Participating Countries. The regional steering committee shall be chaired by the Minister or Vice Minister of the host country's Ministry of Health, and comprise leading representatives from the Project's steering committees of the Participating Countries, project staff, and ADB and WHO representatives. An RCU shall be established in Hanoi and managed by ADB, and funded by the Pooled Fund. The RCU shall be responsible for regional coordination including liaison with stakeholders, data and document collection, support of international consultants, provision of logistic support, and organization of Project regional workshops/meetings.	GA, Sch 5 Para. 5	**Complied with.**
Financing by the Pooled Fund The Pooled Fund shall be used for financing (i) the regional steering committee including technical forums, regional workshop; (ii) the RCU including engaging regional coordination consultants; (iii) international technical consultants; and (iv) regional studies and Project cross-border activities. The regional steering committee and RCU shall be financed on the basis of the ratio 30:20:50 for Cambodia, Lao PDR and Viet Nam respectively.	GA, Sch 5 Para. 6	**Complied with.**

Covenant	Reference in Grant Agreement	Status of Compliance
Financing by the Pooled Fund The International technical consultants whose areas of expertise are referred to in Paragraphs 1(a), (f) and (g) of Schedule 4 to the Grant Agreement shall be engaged through, and managed by, WHO with concurrence of MOH and ADB. Such consultants shall be engaged through, and managed by, WHO. Such consultants shall be financed out of the Pooled Fund, representing $320,000 from the Recipient's grant proceeds, $480,000 from Cambodia Grant proceeds, and $800,000 from Viet Nam Grant proceeds pursuant to a project implementation agreement to be entered into between ADB and WHO.	GA, Sch 5 Para. 7	**Complied with.**
Regional studies and Project cross-border activities shall be decided and financed on a case-by-case basis by the Participating Countries through the regional steering committee.	GA, Sch 5 Para. 8	**Complied with.**
Surveillance and Response The Recipient shall ensure that the Project surveillance and response activities are technically sound, sustainable, participatory and in accordance with the IHR 2005.	GA, Sch 5 Para. 9	**Complied with.**
Integrated CDC The Recipient shall ensure that the Project activities at provincial level are implemented in a manner that supports mainstreaming CDC in the general provincial health services. By 30 June 2006, MOH and the Project provinces shall prepare, and submit to ADB for approval, implementation plans for integrated CDC in the Project provinces. By 31 January of each year of the Project period, MOH shall submit to ADB annual updates on changes to the integrated CDC plans, if there are any changes to the plans. Within one year of the Effective Date, all Project provinces shall implement the initial plans.	GA, Sch 5 Para. 10	**Complied with.**
HIV/AIDS Control The Recipient shall ensure that the HIV/AIDS activities will be planned in consultation with the HIV/AIDS national steering committee and coordinated through provincial HIV/AIDS committees and provincial health committees. The Recipient shall further ensure that targeted high risk groups will be provided with continuum of care to prevent HIV/AIDS and sexually transmitted diseases.	GA, Sch 5 Para. 11	**Complied with.**
Counterpart Funds The Recipient shall ensure that all necessary counterpart funds for Project implementation are provided in a timely manner and to such end; the Recipient shall make timely submissions of annual budget appropriation requests and take all other measures necessary or appropriate for prompt disbursement of appropriate funds during each year of the Project implementation.	GA, Sch 5 Para. 12	**Complied with.** The main reason for lower counterpart expenses was tax exemption for vehicles. Other reasons were lower recurrent costs and late approval of the AOP. It was not due to lack of funds.
Ethnic Minority Development Plan The Recipient shall ensure that a national ethnic minority development plan will be prepared by MOH based on the general guidelines set forth in the agreed project Ethnic Minority Development Plan, and will be implemented in a timely manner and have resources to increase the quality of, and access to, health services received by ethnic minorities.	GA, Sch 5 Para. 13	**Partially complied with.** The EMDP was prepared late and only partly implemented. In particular, recording of ethnic minority benefits was weak.

Covenant	Reference in Grant Agreement	Status of Compliance
Gender Action Plan The Recipient shall ensure that a national gender action plan will be prepared by MOH based on the general guidelines set forth in the agreed project Gender Action Plan. The gender action plan shall be implemented in a timely manner, and have adequate resources allocated for both its preparation and implementation.	GA, Sch 5 Para. 14	**Partially complied with.** The GAP was prepared late and only partly implemented. In particular, recording of gender benefits was weak.
Resettlement The Recipient shall screen all proposed civil works and ensure that involuntary resettlement impacts are avoided. If any involuntary resettlement is unavoidable, the Recipient shall prepare a resettlement plan in accordance with ADB's Policy on Involuntary Resettlement and submit it to ADB for approval prior to commencing land acquisition activities. The Recipient shall ensure that the resettlement plan will include detailed measurement surveys, compensation unit rates based on replacement cost surveys for all categories of losses and allowances and a final database of affected persons.	GA, Sch 5 Para. 15	**Complied with.** No resettlement was involved.
Environment The Recipient shall ensure that the operation of all health facilities will comply with all the Recipient's applicable laws and regulations, ADB's Environment Policy of 2002, the summary initial environmental examination and environmental management plan.	GA, Sch 5 Para. 16	**Complied with.**
Operation and Maintenance The Recipient shall ensure that annually adequate budget is made available to the Project provinces for the operation and maintenance of Project facilities during and after the Project.	GA, Sch 5 Para. 17	**Complied with.**
Procurement All major contract variations will need ADB's prior approval.	GA, Sch 3 Para. 2	**Complied with.**
Financial The Recipient shall (i) maintain, or cause to be maintained, 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 9 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the reports of the auditors relating thereto (including the auditor's opinion on the use of the Grant Proceeds and compliance with the financial covenants of this Grant Agreement as well as on the use of the procedures for imprest accounts/statement of expenditures), all in the 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.	GA, Article IV Section 4.02 Para. (a)	**Partially complied with.** Audit reports were often 1–3 months late; because of the type of project, auditing takes time, with multiple small expenditures and scattered locations. There were no imprest or SOE issues. Liquidation of pooled funds took time because receipts were misplaced in ADB.

Covenant	Reference in Grant Agreement	Status of Compliance
The Recipient shall enable ADB, upon ADB's request, to discuss the Recipient's financial statements for the Project and its financial affairs related to the Project from time to time with the Recipient's auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB, provided that any such discussion shall be conducted only in the presence of an authorized officer of the Recipient unless the Recipient Nam shall otherwise agree.	GA, Article IV Section 4.02 Para. (b)	**Complied with.**
The Recipient shall enable ADB's representatives to inspect the Project, the goods financed out of the proceeds of the Grant, and any relevant records and documents.	GA, Article IV Section 4.03	**Complied with.**

AIDS = acquired immune deficiency syndrome, AOPs = annual operational plans, CDC = communicable diseases control, DHP = Department of Hygiene and Prevention, DPB = Department of Planning and Budget, EMDP = ethnic minority development plan, GAP = gender action plan, HIV = human immunodeficiency virus, IHR = international health regulations, MOH = Ministry of Health, MSC = MOH Steering Committee, PMU = project management unit, RCU = regional coordination unit, SOE = Statement of Expenditures, STI = sexually transmitted infections, WHO = World Health Organization;
Source: Asian Development Bank.

Status of Compliance to Grant Covenants
G0027-VIE

Covenant	Reference in Grant Agreement	Status of Compliance
Project Management and Implementation MOH shall be the Project Executing Agency. APM shall be the implementing agency.	GA, Sch 5, Para. 1	**Complied with.**
The PSC shall be responsible for reviewing the Project's progress and guiding its implementation. The PSC shall be headed by the vice-minister of health for preventive services and comprise the MOH's Departments of Planning and Finance, Equipment and Construction, and Science and Training, the Ministry of Planning and Investment, the Ministry of Finance and the State Bank of Viet Nam. PSC meetings shall be held on a semi-annual basis.	GA, Sch 5 Para. 2	**Complied with.**
The PMU shall be established in APM. The PMU shall comprise a project director, a deputy director, a chief accountant, an accountant, 2 procurement and planning officers and 2 monitoring, evaluation and reporting officers, and shall work under the overall guidance of the PSC and in collaboration with other project management units under ADB projects being implemented in MOH. The PMU shall hold monthly meetings to review Project's implementation and reports, and agree on workplans for the next month.	GA, Sch. 5 Para. 3	**Complied with.**
At national level, NIAs shall implement the Project staffed with at least one qualified project staff. At provincial level, the Provincial Preventive Medicine Centers shall implement the Project with strengthened staff including at least one accounts officer for each center.	GA, Sch 5 Para. 4	**Complied with.**
MOH shall ensure that the Project is implemented based on the Project's national AOPs. APM shall prepare the national AOPs in consultation with ADB and submit them to the PSC for approval, and further submit, no later than 31 January of each year, the approved national AOPs to ADB. The national AOPs shall be based on AOPs submitted by the Project provinces and national programs for CDC including Dengue, HIV/AIDS and endemic diseases, covering all Project activities with corresponding budget.	GA, Sch 5 Para. 5	**Complied with.**
Viet Nam shall cause its task forces on communicable disease control, among others, task force for avian influenza control and the national and provincial committees for HIV/AIDS control, to provide technical guidance to the Project, if necessary.	GA, Sch 5 Para. 6	**Complied with.**
The regional steering committee, which is advisory in nature, shall meet annually, which meetings will be hosted by one of the Participating Countries. The regional steering committee shall be chaired by the Minister or Vice Minister of the host country's Ministry of Health, and comprise leading representatives from the Project's steering committees of the Participating Countries, project staff, and ADB and WHO representatives. An RCU shall be established in Hanoi and managed by ADB, and funded by the Pooled Fund. The RCU shall be responsible for regional coordination including liaison with stakeholders, data and document collection, support of international consultants, provision of logistic support, and organization of Project regional workshops/meetings.	GA, Sch 5 Para. 7	**Complied with.**

Covenant	Reference in Grant Agreement	Status of Compliance
Financing by the Pooled Fund The Pooled Fund shall be used for financing (i) the regional steering committee including technical forums, regional workshops; (ii) the RCU including engaging regional coordination consultants; (iii) international technical consultants; and (iv) regional studies and Project cross-border activities. The regional steering committee and RCU shall be financed on the basis of the ratio 30:20:50 for Cambodia, Lao PDR and Viet Nam respectively.	GA, Sch 5 Para. 8	**Complied with.**
The International technical consultants referred to in Paragraph 4 of Schedule 4 to the Grant Agreement shall be financed out of the Pooled Fund, representing $800,000 from Viet Nam's grant proceeds, $480,000 from Cambodia Grant proceeds, and $320,000 from Lao Grant proceeds pursuant to a project implementation agreement to be entered into between ADB and WHO.	GA, Sch 5 Para. 9	**Complied with.**
Regional studies and Project cross-border activities shall be decided on a case-by-case basis by the Participating Countries through the regional steering committee.	GA, Sch 5 Para. 10	**Complied with.**
Surveillance and Response Viet Nam shall ensure that the Project surveillance and response activities are technically sound, sustainable, participatory and in line with the IHR 2005.	GA, Sch 5 Para. 11	**Complied with.**
Integrated CDC Viet Nam shall ensure that the Project activities at provincial level are implemented in a manner that supports mainstreaming CDC in the general provincial health services. By 30 June 2006, MOH and the Project provinces shall prepare, and submit to ADB for approval, implementation plans for integrated CDC in the Project provinces. By 31 January of each year of the Project period, MOH shall submit to ADB annual updates on changes to the integrated CDC plans, if there are any changes to the plans. Within one year of the Effective Date, all Project provinces shall implement the initial plans.	GA, Sch 5 Para. 12	**Complied with.**
HIV/AIDS Control Viet Nam shall ensure that the HIV/AIDS activities will be planned in consultation with the HIV/AIDS national steering committee and coordinated through provincial HIV/AIDS committees and provincial health committees. MOH shall ensure that targeted high risk groups will be educated on how to prevent HIV/AIDS.	GA, Sch 5 Para. 13	**Complied with.**
Counterpart Funds Viet Nam shall ensure that all necessary counterpart funds for Project implementation are provided in a timely manner and to such end, MOH shall make timely submissions of annual budget appropriation requests and take all other measures necessary or appropriate for prompt disbursement of appropriate funds during each year of the Project implementation.	GA, Sch 5 Para. 8	**Complied with.** The main reason for lower counterpart expenses was tax exemption for vehicles. Other reasons were lower recurrent costs and late approval of the AOP. It was not due to lack of funds.

Covenant	Reference in Grant Agreement	Status of Compliance
Ethnic Minority Development Plan Viet Nam shall ensure that a national ethnic minority development plan will be prepared by MOH based on the general guidelines set forth in the agreed project Ethnic Minority Development Plan, and will be implemented in a timely manner and have resources to increase the quality of, and access to, health services received by ethnic minorities.	GA, Sch 5 Para. 15	**Partially complied with.** The EMDP was prepared late and only partly implemented. In particular, recording of ethnic minority benefits was weak.
Gender Action Plan Viet Nam shall ensure that a national gender action plan will be prepared by MOH based on the general guidelines set forth in the agreed project Gender Action Plan. The gender action plan shall be implemented in a timely manner, and have adequate resources allocated for both its preparation and implementation.	GA, Sch 5 Para. 16	**Partially complied with.** The GAP was prepared late and only partly implemented. In particular, recording of gender benefits was weak.
Resettlement Plan Viet Nam shall screen all proposed civil works and ensure that involuntary resettlement impacts are avoided. If any involuntary resettlement is unavoidable, Viet Nam shall prepare a resettlement plan in accordance with ADB's Policy on Involuntary Resettlement and submit it to ADB for approval prior to commencing land acquisition activities. Viet Nam shall ensure that the resettlement plan will include detailed measurement surveys, compensation unit rates based on replacement cost surveys for all categories of losses and allowances and a final database of affected persons.	GA, Sch 5 Para. 17	**Complied with.** No resettlement was involved.
Environment Viet Nam shall ensure that the operation of all health facilities will comply with all Viet Nam's applicable laws and regulations, ADB's Environment Policy of 2002, the summary initial environmental examination and environmental management plan.	GA, Sch 5 Para. 18	**Complied with.**
Operation and Maintenance Viet Nam shall ensure that annually adequate budget is made available for the operation.	GA, Sch 5 Para. 19	**Complied with.**
Procurement All major contract variations will need ADB's prior approval.	GA, Sch 3 Para. 2	**Complied with.**
Financial The Recipient shall enable ADB, upon ADB's request, to discuss the Recipient's financial statements for the Project and its financial affairs related to the Project from time to time with the Recipient's auditors, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB, provided that any such discussion shall be conducted only in the presence of an authorized officer of the Recipient unless the Recipient Nam shall otherwise agree.	GA, Article IV Section 4.02 Para. (b)	**Complied with.**

Covenant	Reference in Grant Agreement	Status of Compliance
The Recipient shall (i) maintain, or cause to be maintained, 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 6 months after the end of each related fiscal year, certified copies of such audited accounts and financial statements and the reports of the auditors relating thereto (including the auditor's opinion on the use of the Grant Proceeds and compliance with the financial covenants of this Grant Agreement as well as on the use of the procedures for imprest accounts/statement of expenditures), all in the 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**.**	GA, Article IV Section 4.02 Para. (a)	**Partially complied with.** Audit reports were often 1–3 months late; because of the type of project, auditing takes time, with multiple small expenditures and scattered locations. There were no imprest or SOE issues. Liquidation of pooled funds took time because receipts were misplaced in ADB.
The Recipient shall enable ADB's representatives to inspect the Project, the goods financed out of the proceeds of the Grant, and any relevant records and documents.	GA, Article IV Section 4.03	**Complied with.**

AOPs = annual operational plans, APM = Administration of Preventive Medicine, CDC = communicable diseases control, IHR = International Health Regulations, MOH = Ministry of Health, NIAs = , PMU = project management unit, PSC = project steering committee, RCU = regional coordination unit , WHO = World Health Organization;
Source: Asian Development Bank.

SUMMARY OF GENDER EQUALITY RESULTS AND ACHIEVEMENTS

I. Project Description

1. The project supported regional cooperation, national surveillance and response systems, national dengue and neglected tropical diseases (NTD) programs, and community-based communicable diseases control (CDC) in targeted provinces. It focused on remote border populations, in particular poor villages, ethnic minorities, and women and children as the major beneficiaries. The project was classified as *gender equity in opportunities*.

II. Gender Analysis and Project Design Features

A. Gender Issues and Gender Action Plan Features

2. Women in Cambodia, the Lao PDR, and Viet Nam (CLV countries), especially ethnic minority women, remain particularly vulnerable to poverty. At appraisal, Cambodia had one of the lowest levels of gender equity in Asia, as measured by the gender-related development index (0.557) and the gender empowerment index (0.364). Rural and ethnic minority women in these countries carry out more than half of total agricultural production, as well as the additional workload around the home. Women workers earn considerably less than male workers, and women consistently consume relatively less than males, as indicated by the higher malnutrition rates for girls and women.

3. Maternal and child mortality in the region is high, but most of the primary causes are preventable. Common reasons for high maternal mortality, apart from lack of access to appropriate services, are a lack of recognition of the risks of pregnancy and delivery, nutrition and delivery customs, concerns about health services and their cost. Acute respiratory infections, and diarrhea and parasitic diseases are significant causes of morbidity and mortality among women and children. A lack of awareness of CDC and the low quality of health services disproportionately affect poor and vulnerable groups, including ethnic minorities. Poor women are particularly vulnerable to sexual exploitation.

4. Gender equity considerations run through all the health-related Millennium Development Goals (MDGs). Goal 3, to promote gender equality and empower women, has targets and indicators related to gender equality in education and literacy, improvements in women's income, poverty related to the share of women's wage employment, as well as women's representation issues, all of which are important in improving the health of women and children and the health standards of society overall. Gender considerations are emerging as key issues in CDC. It is widely recognized that gender inequality is a principal factor in the HIV/AIDS pandemic and sexually transmitted infections. Communicable diseases such as malaria are a major contributing factor to maternal mortality. Youth are also increasingly at risk of HIV/AIDS and other infections because of social changes and increasing travel in the region. Children are more vulnerable to infectious diseases than adults.

5. A gender analysis was conducted during project preparation to ensure that gender concerns in CDC were identified and addressed in the overall project design. A gender action plan (GAP) with monitoring indicators was developed to ensure that gender-related health issues were integrated into project implementation. Country-specific GAPs, based on the project GAP with country specific indicators, were prepared during implementation. National gender specialists were recruited to assist the project management unit in each country in preparing,

implementing, and monitoring the country-specific GAPs. Table 1 provides the project GAP achievements based on the reports of the three country GAPs.

6. The project GAP was based on two challenges. The first challenge was to encourage health policies and services that recognize the differences in the health needs of men and women. In the health systems of the CLV countries, women's specific needs are recognized in the provision of maternal and reproductive health services, and in the associated health policy, plans, and budgets. What is less recognized is that men and women have different degrees of vulnerability and exposure to infectious diseases, given their different roles in the management of their households and in productive and livelihood activities. Furthermore, there are differences between the sexes in their access to information. Women are often less well informed than men on the sources of communicable disease and how to prevent them. Hence, action needs to be taken to emphasize and respond to the specific needs of women. This is even more important for women of ethnic groups, who face additional access, language, and cultural barriers.

7. The second challenge was to address gender inequity among health staff so as to achieve better health outcomes for both women and men. Gender differences in status and power affect women's career opportunities in health professions. Women are concentrated in service delivery jobs and are greatly under-represented at management levels. Highly qualified women are more likely to be based in towns and cities than men at the same level. More women than men are employed in provincial and district health services in the Lao PDR and Viet Nam; women are more equitably represented at the provincial level in terms of their qualifications, but few women doctors work at the district level. In Cambodia, men predominate in the sector at all levels. Gender disparity is not just an equity issue. When women's perspectives are not represented in management, it is less likely that practical and effective gender-sensitive policies will be developed. At the same time, community based health services need equal or greater numbers of women staff and community workers to address women's specific health needs. Inequity is closely linked to women's roles as wives and mothers.

8. Gender design features in the GAP covered (i) the appointment of focal points, (ii) links to sector-wide gender and ethnic plans, (iii) use of disaggregated indicators, (iv) gender and ethnic needs assessments, (v) representation of women and ethnic groups in oversight, planning, management, training, scholarships, workshops, meetings, and mobile teams, (vi) inclusion of women and ethnic issues in training activities, (vii) actions targeting women, such as specific education and services for women, (viii) actions targeting ethnic populations, (ix) inclusion of women and ethnic issues in annual operational plans (AOPs), and (x) consulting services to support these. A focus on ethnic groups will also disproportionately benefit women, as ethnic women are particularly disadvantaged, so this is included in the analysis.

B. Overall Assessment of Gender-Related Achievements

9. While the GAP is comprehensive, it insufficiently recognized the cultural and capacity constraints in the ministries, and did not propose actions to build capacity on gender issues. While acknowledging gender issues, the project management units (PMUs), during appraisal and early implementation, perceived the GAP to be of secondary importance compared to more pressing issues such as major epidemics. Hence, GAP implementation initially received less attention. It also took time to engage national consultants. After a year or so, country specific GAPs were prepared, and partly implemented. Incidentally, during appraisal of the second CDC project, the gender discussion was prominent, and fully endorsed by PMUs. However, in order

to harmonize and enhance gender efforts, PMUs prefer having one gender strategy and GAP template for all projects in a sector, with specific adjustments being made for each project.

10. A summary of achievements and shortcomings is as follows:

(i) Focal points in MOH and the project were identified but largely ineffective;
(ii) Gender and ethnic concerns were included in the training, but there was no gender and ethnic specific training, which could potentially be more effective;
(iii) Ministries prefer broadly agreed sector-wide gender plans, rather than each project having different indicators;
(iv) The sector-wide health management information system (HMIS) for monitoring use of services was not ready to report disaggregated data, but with digitization, the HMIS has been redesigned to start reporting disaggregated data. At the project level, reporting of disaggregated data was mostly for training;
(v) Women and ethnic representation in management was not satisfactory except in Viet Nam;
(vi) Women and ethnic representation in training and scholarships was still below target, as women feel more obliged to stay home and carry out family duties;
(vii) Women and ethnic representation in workshops and meetings was adequate, keeping in mind that both Cambodia and Viet Nam have relatively low numbers of ethnic groups;
(viii) Women representation in mobile teams is based on staff availability, but generally seems adequate;
(ix) Actions targeting women and ethnic groups, e.g. education activities, were carried out for such areas as HIV, dengue, child care, and deworming;
(x) Inclusion of women and ethnic issues in AOPs has been initiated, but needs to be improved further; and
(xi) Difficulties were encountered in engaging competent local consultants.

C. Gender Equality Results

1. Participation, access to project resources, and practical benefits

11. **Output 1.** The national surveillance and response systems collect disaggregated data at the local level. But these are not routinely collected in disaggregated form at the national level. The project did not insist on a separate project monitoring system as the burden for data collection was already high. However, as reporting systems become digitized, collecting disaggregated data will be done by gender but not by ethnic group. The governments are concerned about ethnic sensitivities. Many ethnic people are fully integrated in mainstream society and don't consider themselves as being an ethnic minority.

12. **Output 2.** A large proportion of those trained were women. Ethnic people were included in training where possible. Training activities included gender and ethnic concerns. There were specific education actions targeting women. While the principle of including gender and ethnic issues in AOPs was agreed to, such issues were not adequately incorporated. Similarly, as noted, the national system was not ready to collect disaggregated data at the national level.

13. **Output 3**. Female participation in project management was quite low in Cambodia and the Lao PDR (20%), and high in Viet Nam (70%). All PMUs had focal points, but these were not seen as particularly active in promoting women and ethnic concerns, as they had many other assignments. GAP and EMP actions were only adopted and applied where this was considered

suitable and important, but largely ignored where the expected benefit was not commensurate with the perceived effort. However, participation of women in workshops, including making presentations, was reportedly higher than the targeted 20%. Participation of women was on the basis of job position rather than gender. Cross-border activities were basically led by provincial governments and did not emphasize gender and ethnic issues.

2. Strategic Changes in Gender Relations

14. Strategic changes in gender relations occurred within these countries during implementation, but were not project specific. Perhaps the only project specific strategic change observed was an increased willingness of the PMUs to consider gender issues as important, and start using disaggregated data. However, there was no noticeable change in terms of the participation of women in management and training.

3. Contribution of Gender Equality Results to Overall Project Outcome

15. There is no indication that the gender equality focus has resulted in an increase in the overall project outcome, as implementation did not focus on improving gender outcomes. However, in terms of benefits for women, it is noted that:

(i) A large number of female staff and health workers were trained;
(ii) Special attention given to ethnic women helped to increase benefits for women;
(iii) Collection of disaggregated data was introduced at the sectoral level through the HMIS;
(iv) Increasingly, MOH staff are becoming more sensitized towards gender issues;
(v) Sectoral gender action plans are being developed; and
(vi) Including gender issues in AOPs will help improve benefits for women on a sustainable basis.

III. LESSONS LEARNED AND RECOMMENDATIONS.

1. Lessons learned

16. Major lessons are as follows:

(i) Executing agencies found it difficult to understand the importance of gender issues. Moreover, they believed that these were already being addressed in a number of other ways.
(ii) Some actions such as collecting disaggregated data were difficult to implement as a suitable HMIS was not in place;
(iii) Shortcomings in gender analysis, a weak GAP, and limited technical support affect implementation.

17. The gender and ethnic analysis was conducted during the project design. However, the capacity and commitment of the executing agencies to implement the gender and ethnic action plans were not assessed adequately during the design. The executing agencies consider overall disease outbreak control to be the overwhelming priority; gender and ethnic issues, although recognized, are not seen as a priority in this context and therefore are not given enough attention.

2. Recommendations

18. Recommendations are as follows:

(i) A careful analysis of the relevance, relative importance, and feasibility of addressing various gender and ethnic issues should be undertaken. Given the special nature of disease outbreaks, resource and time constraints, and opportunity costs, clear choices need to be made as to the most important actions that will yield the best results;
(ii) A careful assessment should be made of the capacity and willingness of the executing agencies to implement the GAP, and suitable arrangements should be made for its implementation; sensitization and motivation of PMU staff is essential and should be done at the project preparation stage;
(iii) GAP and EMP details should be prepared at the design phase, while taking into consideration the special nature of the project, such as outbreak control and response activities;
(iv) Engaging consultants through advance action will help ensure that GAP and EMP are fully implemented in project activities;
(v) Indicators should be realistic and have clearly identified data sources;
(vi) The GAP should be fully integrated into the project design, with specific and realistic targets; even so, sometimes it may be more effective to include specific women-related actions in the project design; and
(iv) ADB should provide more hands-on gender supervision and support for projects, including field visits and participation in training activities.

TABLE 1. SUMMARY OF GENDER ACTION PLAN AND ETHNIC GROUP PLAN ACHIEVEMENTS

GAP and EMG Activities and Targets	Progress to date			Issues and Challenges
	Cambodia	Lao PDR	Viet Nam	
A. Strengthening national surveillance and response systems				
Strengthening institutional structures				
1. Appoint MOH focal points for gender and ethnic issues	1. in place	1. in place	1. in place	Effectiveness of focal points was low.
2. Conduct MOH gender- and ethnic sensitive training	2. many activities	2. included in training activities	2. not emphasized	Specific training on gender and ethnic issues was not included.
3. Contribute to sector-wide GAP and EGP	3. done	3. concept stage	3. none	Each MOH already prioritizes maternal and child health care, gender seen as less of an issue.
4. Use gender and ethnic disaggregated indicators	4. In place post project	4. re-designed but not yet functioning well	4. reportedly in place but not generating data	Sector-wide health management information systems (HMISs) were introduced during the project; initially, they were unable to generate gender disaggregated data, but with digitalization, this is becoming possible.
Strengthening systems for surveillance and response and preparedness				
1. Incorporate gender and ethnic aspects in training for all targeted staff and VHWs	1. done	1. some	1. none	Insufficient expert advice
2. Increase the representation of women and ethnic people in surveillance and response structures	2. low	2. 43%	2. high	Women were selected on based on assignment and availability.
3. Women participate in 30% of RRTs and campaigns	3. 30%	3. 48%	3. 50%	Cambodia and Viet Nam are estimates
4. Women are adequately represented in training activities	4.20% ethnic low	4. women 45% ethnic 28%	4. 40% ethnic low	To the extent available
5. Some community education campaigns specifically target women	5. none	5. yes	5. none	For example, training of Lao women's union, and training of ethnic women
Strengthening laboratory services				
1. Women are adequately represented in training	1. >50%	1. 75%	1. >50%	Estimate for Cambodia and Viet Nam
2. Female laboratory staff increased by 10%	2. no data	2. no data	2.no data	Female laboratory staff is already over 50%
Developing human resources				
1. Conduct gender and ethnic training needs assessment	1. Done	1. Done	1. Done	By consultants
2. Prepare gender and ethnic training modules	2. None	2. None	2. None	No special effort
3. Ensure merit-based participation of women and ethnic people in the field epidemiology training program	3. Done	3. Done	3. Done	
B. Improving CDC for vulnerable populations				
Strengthen the capacity for integrated CDC in provinces				
1. Include gender and ethnic issues	1. Done	1. Done	1. Done	Insufficient effort

GAP and EMG Activities and	Progress to date			Issues and Challenges
in training activities 2. Women and ethnic participate for 50% in IMCI training	2. 30%	2. 30%	2. Achieved at community level	Cambodia and Lao estimates
3. Use gender and ethnic-disaggregated indicators	3. HMIS in place	3. HMIS being put in place	3. HMIS doesn't provide this	Disaggregated data usually available at services level, but is not aggregated due to paper workload
4. Include gender and ethnic dimensions in AOPs	4. Progress	4. Progress	4. Not seen as an issue	AOPs are not satisfactory on these aspects
Control of priority endemic diseases in selected provinces				
1. Conduct education programs targeting women and ethnic people	1. Done	1. Done	1. Done	Dengue, worms
2. Conduct community-based activities for disease prevention benefiting women and ethnic people	2. Done	2. Done	2. Done	Child care, school health
3. Conduct deworming of pre-school children	3. Done	3. Done	3. Done	Reached >80% of children
4. Monitor beneficiaries including women and ethnic people	4. Done	4. Done	4. Done	But no disaggregated data available
HIV/AIDS control in hotspots				
1. Conduct gender and ethnic-sensitive training of health staff and peer educators	1. NA	1. Done	1. Done	
2. Conduct IEC program for women and ethnic people on HIV/AIDS prevention and care	2. NA	2. Done	2. Combined	Lao women's union Hmong and Kmer languages used
3. Conduct peer education of female sex workers, including ethnic sex workers	3. NA	3. 46% 38% ethnic	3. Done	Cambodia was mainly supported with medicines
4. Increase the availability of condoms and/or medicines	4. Done	4. Done	4. Done	under this output
5. HIV services are suitable for women and ethnic people	5. Yes	5. Yes	5. Yes	
C. Strengthening Regional Cooperation in CDC				
Strengthening regional structures and cooperation				
Improving cross-border cooperation				
1. Incorporate gender and ethnic issues in cross-border cooperation activities	1. Weak	2. Weak	3. Weak	Not emphasized
Improving knowledge management				
1. Women participation in workshops reaches 20%	1. 20%	1. 20%	1. 20%	Not emphasized
2.Gender and ethnic issues are integrated in workshop content	2. Weak	2. Weak	2. Weak	Not emphasized
3. Gender and ethnic issues are integrated in study design	3. Weak	3. Weak	3. Weak	
Project management				
1. Female representation in project management is 30%	1. 20%	1. 30%	1. 70%	
2. Social development expert is engaged in time	2. Delayed	2. Delayed	2. Delayed	Difficult to find competent local expert
3. Gender and ethnic sensitive training is provided to all project staff	3. Yes	3.Yes	3. Yes	
4. Focal point for gender and ethnic	4. PMU only	4. PMU only	4. PMU only	PPMU OIC is focal point

GAP and EMG Activities and	Progress to date			Issues and Challenges
issues is appointed in each PMU and each PPMU				by default
5. Country-specific GAP and EGP are prepared on time	5. Delayed	5. Delayed	5. Delayed	Training on gender was provided to provinces
6. Gender and ethnic concerns are integrated in all project activities	6. Yes	6.Partly	6. Not clearly	Late engagement of local consultants
7. Conduct gender and ethnic disaggregated monitoring	7. Partial	7. Partial	7. Partial	HMIS designs have been changed to monitor disaggregated data after the project

AOPs = annual operational plans, CDC = communicable diseases control, EGP = Ethnic Groups Plan, EMG = Ethnic Minority Groups, GAP = Gender Action Plan, HIV/AIDS = human immunodeficiency virus/acquired immune deficiency syndrome, HMIS = health management information system, IEC = information, education, and communication, IMCI = integrated management of childhood diseases, MOH = Ministry of Health, PMU = project management unit, PPMU = provincial project management unit officer-in-charge, OIC = officer-in-charge, VHW = village health workers, TOT = training of trainers;
Source: Asian Development Bank.

Summary of Consulting Services

Consultant's Expertise	Inputs	Disbursed ($)	Remarks
Cambodia			
Health information system	12.0	9,600.00	
Outbreak & hospital preparedness	44.5	42,150.00	
Monitoring and evaluation	37.5	31,109.36	
Community-based vector control	30.0	25,410.61	
International procurement	8.0	17,873.50	
Social development (gender)			
Impact evaluation (firm)		167,740.13	
Lao PDR			
Monitoring and evaluation	35 months	16,797.00	
Health systems	15 months	7,500.00	Expert resigned after 10 months.
Dengue	30 months	16,298.94	
Outbreak preparedness	30 months	16,298.94	
HIV/AIDS control	30 months	16,298.94	
Endemic diseases	22 months	12,265.00	
Social development	3 months	2,400.00	
Surveillance and response	-	-	No suitable candidate found
Health information system	-	-	No suitable candidate found
Health legislation	-	-	No suitable candidate found
Accounting and auditing (firm)	15 months	48,306.42	
Viet Nam			
Surveillance and response		-	No suitable candidate found
Outbreak preparedness	26 months	26,000.00	
Project monitoring and evaluation	26 months	26,000.00	
Health planning	10 months	8,700.00	
Public health		-	Not contracted
Dengue		-	No suitable candidate found
Endemic diseases	26 months	26,000.00	
HIV/AIDS		-	Not contracted
Community development		-	Not contracted
Health information system	10 months	6,800.00	
Legal system	3 months	2,100.00	
Regional			
Health systems	33 months	452338.32	
HIV/AIDS	7.5 months	92,029.16	
Regional coordinator	46 months	633,017.24	
Program coordinator	43.5 months	87,721.02	
WHO consultants (ADB financed)		400,000.00	
WHO consultants (WHO financed)		900,000.00	

List of Procurement Packages (Goods/Works) Financed by ADB
G0025-CAM

Contract Package No.	Description of Goods/Works	Contract Amount (USD)	Contract Signed	Contractor's name	Contract Completed
Goods					
HSSP/ADB-GMS/NS/2/OE/06	Office equipment (1 laptop and 3 desktop computers) – immediate requirement for GMS office	4,151.00	6-Oct-06	Narita Distibution Cambodia	18-Oct-06
HSSP/ADB-GMS/shopping/1/ Printing/06	Printing of documents for CDC Department (for 2006)	1,967.00	5-Jan-07	Srey Sokneak Aphivath Peanich	26-Jan-07
HSSP/ADB-GMS/Shopping/OE/08	Procurement of one laptop computer	1,450.00	9-Mar-07	Narita Distibution Cambodia	15-Mar-08
HSSP/ADB/IAPSO/ Vehicles/SS-1/07	13 vehicles for central and provincial levels (for 2006)	247,947.49	16-Jan-07	IAPSO	Delivered
HSSP/ADB-GMS/LIB/1/06	ARV Drug (NCHADS) (for 2006)	106,445.00	22-Jan-07	Aurobindo Pharma Ltd	1-Mar-07
HSSP/ADB/GMS-DCD/ICB/1/06	110 motorcycles (for 2006)	124,190.00	18-Jul-07	OMC Co., Ltd	7-Aug-07
HSSP/ADB-GMS/NCB/1-A/OE/06	Office Equipment (Digital Photocopier, LCD Project & Scanner) for CDC Dept, CNM, GMS Office	13,364.00	1-Aug-07	Thakral Brother (Pte) Ltd	7-Oct-07
HSSP/ADB-GMS/NCB/1-B/OE/06	Office Equipment (desktop computer, UPS & color laser printer) for CDC Dept, CNM, GMS Office	11,880.00	1-Aug-07	Te Aik Hong Office Machine Supplies Co., Ltd	7-Oct-07
HSSP/ADB-GMS/NCB/1-C/OE/06	Office equipment (laptop computer, USD Flash and Fax Machine) for CDC Dept, CNM and GMS Office	8,115.00	8-Aug-07	TC Computer	7-Oct-07
HSSP/ADB-GMS/NCB/1-D/OE/06	Office equipment (LCD projector) for CDC Dept.	1,280.00	2-Aug-07	Chhay Hok Computer	7-Oct-07
HSSP/ADB-GMS/Shopping/1/07	First Aid kit for International Health Checkpoint under CDC Dept.	825.00	12-Jun-07	Envisioning Co., Ltd	22-Jun-07
HSSP/ADB-GMS/LCB/2/Printing/ 06	Printing of documents, T-shirts and caps for Dengue Control Program and Lymphatic Elimination Program - IEC Campaign (for 2006 & 2007)	37,810.00	4-Feb-08	Envisioning Co., Ltd	27-Mar-08
HSSP/ADB/GMS/LCB 6/06	Dengue vector control equipment (CNM) for 2006 (Lot 1)	37,400.00	11-Apr-08	Europ Continents	11-Jun-08
	Dengue vector control equipment (CNM) for 2006 (Lots 2 & Lot 3)	5,222.80	11-Apr-08	Dynamic Pharma	11-Jun-08
	Dengue vector control equipment (CNM) for 2006 (Lots 4 & Lot 5)	46,618.00	3-Apr-08	MET Group Co., Ltd	3-Jun-08
HSSP/ADB/GMS/LIB/0 7	ARV drug Nevirapine 200mg tablets (for NCHADS under year 2007)	78,598.00	30-Jan-08	Arobindo	7-Mar-08
HSSP/ADB/GMS/LIB/0 7	ARV drug Nevirapine Lamivudine + Stavudine 150mg+30mg (for NCHADS under year 2007)	52,420.75	20-Feb-08	Ranbaxy	8-Mar-08

Contract Package No.	Description of Goods/Works	Contract Amount (USD)	Contract Signed	Contractor's name	Contract Completed
HSSP/ADB-GMS/LCB/3/ Praziquantel/07	Praziquentel 600mg (Helminth Program)	17,505.00	3-Jan-08	Indace International	7-Mar-08
HSSP/ADB/GMS-CDC/ICB/lab Goods/2/07 (Pack1)	Laboratory equipment, materials and reagents for NIPH, Phnom Penh and 5 Provinces (under 2006 & 2007)	166,448.00	04-Dec-08	Envisioning Co., Ltd	Jul. 2009
HSSP/ADB/GMS-CDC/ICB/lab Goods/2/07 (Pack2)		122,434.50	08-Dec-08	Dynamic Pharma Co., Ltd	Dec. 2009
HSSP/ADB/GMS-CDC/ICB/lab Goods/2/07 (Lot1 Hig value item)		90,974.00	04-Dec-08	Ogawa Co., Ltd (JPY 9,408.600)	Aug. 2009
HSSP/ADB-GMS/Shopping/1/ Priting-08	Printing quarantine information	2,774.20	19-Mar-08	Sopheak Monkul Printing House	17-Apr-08
HSSP/ADB-GMS/Shopping/2/GPS-08	GPS for GMS CDC Project	580.00	17-Mar-08	Aruna Technology	1-Apr-08
HSSP/ADB/GMS/NCB/1/OE/08 (Lot 3)	Office equipment for CDM, CDCD and Provinces and GMS Office	16,864.10	9-Dec-08	Narita Distribution Cambodia	Mar. 2009
HSSP/ADB/GMS/NCB/1/OE/08 (Lot 1,2,4&5)		71,513.20	9-Dec-08	Thakral Brother (Pte) Ltd	Mar. 2009
HSSP/ADB/GMS/LIB/3/08	ARV Drugs (Abacavir 300mg) for NCHADS for year 2008	60,000.00	28-Jul-08	Aurobindo pharma Co., Ltd	8-Aug-08
	ARV Drugs (Didanosine 250 mg) for NCHADS (for 2008)	91,700.00	31-Jul-08	Bristol Myers Squibb	18-Nov-08
	ARV Drugs (Lamivudine 150mg) for NCHADS (for 2008)	19,363.58	6-Aug-08	Matrix laboratories	10-Oct-08
HSSP/ADB/GMS-CDC/Shopping/4/Fish Colonization/08 (Pack1)	Material for fish colonization (plastic containers), handle strainer, rechargeable spotlights)	8,800.00	1-Jul-08	Envisioning	8-Jul-08
HSSP/ADB/GMS-CDC/Shopping/4/Fish Colonization/08 (Pack2)	Material for fish colonization (fish food, handle strainer, rechargable spotlights)	5,586.00	1-Jul-08	Pidana Co., Ltd	8-Jul-08
HSSP/ADB-GMS/Shopping/5/07	Refrigerator (1 unit) for CDC	490.00	6 May 08 (PO)	Long Nara	Jun. 2008
HSSP/ADB/SSS/1/Abat/08	Temephose 1% SG (Abate: 70 tonnes) for CNM	199,500.00	12-May-08	Dynamic Pharma Co., Ltd	8-Jun-08
HSSP/ADB-GMC/shopping/05/08	Office furniture for CDC	4,081.00		Leeco Shop Furniture	Mar. 2009
		3,927.00		Pidana	Mar. 2009
		8,021.00		MFC	Mar. 2009
		22,470.00	9-Apr-08	TVK	10-Nov-08
HSSP/ADB-GMS/SS/08	Mass advertisement on dengue message – TV spots, 3 Radio channels	5,248.00	9-Apr-08	TV3	21-May-08
		672.00	9-Apr-08	FM102	10-Nov-08
		1,092.00	9-Apr-08	FM103	10-Nov-08
		504.00	9-Apr-08	FM99	10-Nov-08

Contract Package No.	Description of Goods/Works	Contract Amount (USD)	Contract Signed	Contractor's name	Contract Completed
HSSP/ADB-GMS/SS/08	Mass advertisement on dengue message – TV spot	11,520.00 17,952.00	28-Jul-08 28-Jul-08	TV3 Apsara TV11	4-Nov-08 4-Nov-08
HSSP/ADB-GMC/shopping/09/Printing/08 (Lot 1)	Printing of bunting, leaflets, T-shirts, caps for National Dengue Control Program (estimated cost of USD 9,600)	3,388.00	22-Aug-08	Envisioning Co., Ltd	3 weeks after approval.
HSSP/ADB-GMC/shopping/09/Printing/08 (Lot 2)		1,595.00	22-Aug-08	Sopheakmongkul Pronting House	4 weeks after approval.
HSSP/ADB-GMC/shopping/09/Printing/08 (Lot 3)		700.00	22-Aug-08	Pidana Co., Ltd	5 weeks after approval.
HSSP/ADB-GMS/UNICEF/08	Procurement of Determine HIV 1/2 (Serum Plasma)	114,420.00		UNICEF	
HSSP/ADB/GMS/Shopping/4/07	Digital camera, video camera, Voice R3ecorder, TV, DVD player (Item nos 1,3,4,5&6)	16,765.10	27-Apr-09	Neeka Limited	May. 2009
	TV (item no. 2)	2,277.00	27-Apr-09	OMC Co., Ltd	May. 2009
	Digital camera (item no. 7) Re-Shopping	1,300.00		Thai Kheang	Aug. 2009
HSSP/ADB-GMS/Shopping/06/Outbreak/09	Mobile generator	847.00	7-Dec-09	Miro Teg Co., Ltd	Dec. 2009
	Electric materials	1,559.80	7-Dec-09	Dara Electronic	Dec. 2009
HSSP/ADB-GMS/Shopping/07/Outbreak/09	Personnel materials (items4,5,8,9,10 & 11)	528.44	14-Aug-09	Envisioning Co., Ltd	Nov. 2009
	Personnel materials(items 1,2,3,6,7 & 12)	421.19	14-Aug-09	Pidana Co., Ltd	Sep. 2009
HSSP/ADB/GMS/Shopping/2/09	First Aid kit and emergency box (20 kits) with estimated cost of USD 4,800	4,978.50		Envisioning Co., Ltd	9-Aug-09
HSSP/ADB-GMS/09/OE/09 (item-1)	Photocopier	1,815.00	11-Dec-09	TE Aik Hong Office Machine Supply Co., Ltd	Jan. 2010
HSSP/ADB-GMS/09/OE/09 (item-2)	Laptop computer	852.50	11-Dec-09	Kim Heng Computer Center	Jan. 2010
HSSP/ADB-GMS/09/OE/09 (items-3 & 4)	Desktop computer & UPS	786.50	11-Dec-09	Anana Computer Co., Ltd	Jan. 2010
HSSP/ADB-GMS/09/OE/09 (items-5 & 6)	Black & white printer and automatic scanner	715.00	11-Dec-09	Narita Distribution Cambodia Co., Ltd	Jan. 2010
(Lot-1)	T-shirts and flexible solar hats	5,420.00	25-Dec-09	Pidana Co., Ltd	10-Mar-11
(Lot-2)	Documents	4,358.75	25-Dec-09	Sun Sokha	11-Mar-11
HSSP/ADB-GMS/Shopping/01/Printer/10	Printer	583.00	3-Dec-10	PTC Computer Co., Ltd	20-Dec-10
Sub Total		**1,893,014.40**			
Works					
HSSP/ADB-GMS/Shopping/Work/09	Office renovation for CDC Department	21,778.73	25-Dec-09	Thai Li Engineering Co., Ltd	7-May-11
Sub Total		**21,778.73**			

List of Procurement Packages (Goods) Financed by ADB
G0026-LAO

Contract No./ EA's Approval	Description	Date of Contract	Supplier	Contract Amount ($)
Vehicles/Motorbikes				
IAPSO PO 83391-1-2	Vehicle for Centers	15 August 2006	UNDP/IAPSO	103,668.00
IAPSO PO 83391-1-3	Vehicle for PIA	15 August 2006	UNDP/IAPSO	120,750.00
UNOPS/MINH/O/LAO/103726-1/ACH	Vehicle for PIA	23 March 2009	UNDP/IAPSO	52,350.00
0154/CDC	Motorbike for Center	28 September 2006	SUZUKI Company	4,800.00
0154/CDC	Motorbike PIA	28 September 2006	SUZUKI Company	81,600.00
0091/CDC	Honda Wave 100 for Center	9 February 2007	New Chip Xeng	4,240.00
1129/CDC	Motorbike PIA	16 March 2009	New Chip Xeng	8,955.00
Office Equipment for Center				
0155/CDC	Copier	28 September 2006	Inter-Computer	10,840.00
0014/CDC.EA	Laptop	18 July 2006	Inter-Computer	5,704.00
0155/CDC	Laptop	28 September 2006	Inter-Computer	2,815.00
0155/CDC	Laptop	28 September 2006	Inter-Computer	6,060.00
0155/CDC	Desktop	28 September 2006	Inter-Computer	10,066.00
0155/CDC	LCD projector	28 September 2006	Inter-Computer	7,250.00
0155/CDC	Printer	28 September 2006	Inter-Computer	2,065.00
0155/CDC	Color printer	28 September 2006	Inter-Computer	660.00
0155/CDC	Digital camera	28 September 2006	Inter-Computer	3,060.00
0155/CDC	UPS 800 VA	28 September 2006	Inter-Computer	1,092.00
	FAX machine	14 September 2006	STAR-COM	365.00
	FAX machine	14 September 2006	SOA Co.,LTD	225.00
	Phone/fax machine	28 August 2006	Phongsavanh Telecom	250.00
	Phone/fax machine	28 August 2006	Phongsavanh Telecom	200.00
0144/CDC	External HDD 40GB for Laptop	25 September 2006	Mars Planet Com	83.00
0144/CDC	External HDD 40GB for PC	25 September 2006	Mars Planet Com	176.00
	Auto cross	18 December 2006	STAR-COM	70.00
0075/CDC	Water pump	9 July 2006		970.90

Contract No./ EA's Approval	Description	Date of Contract	Supplier	Contract Amount ($)
Office Equipment for PIA				
0264/CDC	Copier	22 December 2006	Inter-Computer	3,240.00
0264/CDC	Laptop	22 December 2006	Inter-Computer	14,420.00
0264/CDC	Desktop	22 December 2006	Inter-Computer	10,556.00
0264/CDC	Projector	22 December 2006	Inter-Computer	3,990.00
0264/CDC	Printer	22 December 2006	Inter-Computer	2,100.00
0264/CDC	Color printer	22 December 2006	Inter-Computer	970.00
0264/CDC	Digital camera	22 December 2006	Inter-Computer	1,575.00
0264/CDC	UPS 700 VA	22 December 2006	Inter-Computer	884.00
0264/CDC	Scanner	22 December 2006	Inter-Computer	285.00
0264/CDC	VDO camera	22 December 2006	Inter-Computer	670.00
0264/CDC	DVD player	22 December 2006	Inter-Computer	145.00
0264/CDC	Amplifier	22 December 2006	Inter-Computer	275.00
0264/CDC	Microphone	22 December 2006	Inter-Computer	1,950.00
0264/CDC	Stabilizer	22 December 2006	Inter-Computer	270.00
	Cabinet	Procured by PIAs (PAKSE District)		78.85
Communication Equipment for Center				
0564/CDC	Mobile phone	22 June 2006	Kouang Telecom	390.00
0048/CDC	Mobile phone	30 June 2006	LanXang Phone	950.00
0060/CDC	Mobile phone	14 August 2006	L Thongout Telecom	381.00
0061/CDC	Mobile phone	14 August 2006	Inter-Computer	753.50
0062/DCD	Mobile phone	17 August 2006	Kouang Telecom	233.00
0062/CDC	Mobile phone	17 August 2006	Kouang Telecom	426.00
0062/CDC	Mobile phone	17 August 2006	SOA Co.,LTD	40.00
0059/CDC	Mobile phone	11 August 2006	Boss Phone	740.00
0059/CDC	Mobile phone	11 August 2006	Boss Phone	430.00
	Mobile phone	10 August 2006	Viengngeun Shop	767.05
	Mobile phone	10 August 2006	Family phone	600.00

Contract No./ EA's Approval	Description	Date of Contract	Supplier	Contract Amount ($)
Communication Equipment for PIAs				
	Mobile phone	Procured by PIAs		4,034.60
	Telephone	Procured by PIAs		2,308.00
	Phone/Fax	Procured by PIAs		1,175.00
	FAX Machine	Procured by PIAs		688.50
Medical Equipment (PIA)				
0160/CDC	Spray machine	3 October 2006	Lao-Inter Pharma	44,736.00
081/CMPE	Personal protective suit	27 November 2006	Lao-Inter Pharma	8,550.00
082/CMPE	Larvae survey kit	27 November 2006	Lao-Inter Pharma	3,757.00
PASTEUR LAB PACKAGE 2008/CDC1	Laboratory equipment for Pasteur Institute	14 July 2009	Europ Continents	281,728.71
CLE	Laboratory equipment	9 August 2007	Europ Continents	99,881.00
CLE	Laboratory supplies	10 October 2007	Khanya Mittapab	65,000.00
CLE	Laboratory supplies	10 October 2007	Khanya Mittapab	48,000.00
TOTAL				**USD 1,035,293.11**

List of Procurement Packages (Goods) Financed by ADB
G0027-VIE

Contract No.	Name of Package	Quantity	Supplier/ Contractor	Date of Contract	Actual Disbursed Amount (USD)
03/VIE0027-HĐKT	ULV sprayer	112 units	An Dong Technical Equipment Company, ltd	4 Jan 2008	153,067
16/VIE0027-HĐKT	Personal protective equipment	23500	Danameco Medical Joint Stock company	4 Jan 2008	127,960
18/VIE0027-HĐKT	Communication equipment for district	60 sets	Hoang Tuan Company, Ltd	4 Jan 2008	160,800
19/VIE0027-HĐKT	Dryer	60	Intecom High Technology and International Commerce Company, Ltd	4 Jan 2008	112,020
27/VIE0027-HĐKT	250 liter refrigerators	84 units	Thang Long Safety Equipment Technology Investment Company, Ltd	8 Jan 2008	29,820
44/VIE0027-HĐKT	Larvae and mosquito investigation set	60 sets	Joint Venture: Ngoc Anh Equipment Company, Ltd - Viet Tien Company, Ltd	15 Jan 2008	48,572
42/VIE0027-HĐKT	Binocular scope and magnifier	60	Joint venture: Ngoc Anh Equipment Company, Ltd - Do Than Medical Equipment Company, Ltd	15 Jan 2008	124,153
43/VIE0027-HĐKT	Incubator	60	Joint Venture: Ngoc Anh Equipment Company, Ltd - Do Than Medical Equipment Company, Ltd	15 Jan 2008	143,486
65/VIE0027-HĐKT	Computer, printers, modems	112 sets	Hoang Tuan Company, Ltd	23 Jan 2008	169,680
526/VIE0027-HĐKT	Micro-organic testing equipment for water and food	29	Technimex Import - Export Joint Stock Company	10 Sep 2008	182,352
516/VIE0027-HĐKT	Freezers (-20°C) (unit)	83	Loc Phat High Technology Equipment Joint Stock Company	8 Sep 2008	165,004
528/VIE0027-HĐKT	Quick testing equipment for pesticide (set)	29	Technimex Import - Export Joint Stock Company	10 Sep 2008	329,005
527/VIE0027-HĐKT	Quick analyzer for physical and chemical properties of water and food (set)	29	Intecom High Technology and International Commerce Company, Ltd	10 Sep 2008	264,045
609./VIE0027-HĐKT	Centrifuges	60	Joint venture: Vietnam Red Star Company, Ltd and Viet Khoa Technology Development Company, Ltd	29 Oct 2008	69,000
459/VIE0027-HĐKT	Insecticides	4000	Phuong Dong Medical Equipment Company, Ltd	7 Dec 2009	105,600

Contract No.	Name of Package	Quantity	Supplier/ Contractor	Date of Contract	Actual Disbursed Amount (USD)
477/VIE0027-HĐKT	Autoclave	24	Van Nien Limited Company	15 Dec 2009	195,600
478/VIE0027-HĐKT	Elisa System	15	Intecom High Technology and International Commerce Company, Ltd	15 Dec 2009	237,000
114/VIE0027-HĐKT	Insecticides	2000	Phuong Dong medical Equipment Company, Ltd	5 May 2010	50,900
115/VIE0027-HĐKT	ULV sprayer	54	Hai Phong Medical Equipment Joint Stock Company	5 May 2010	108,108
147/VIE0027-HĐKT	Autoclave	12	Van Nien Limited Company	21 May 2010	97,800
148/VIE0027-HĐKT	Elisa	03	Intecom High Ttechnology and International Commerce Company, Ltd	21 May 2010	47,400
-	Laboratory equipment for Pasteur Nha Trang		Technology JSC	-	104,100
-	Laboratory equipment for Highland IHE		Technology JSC	-	149,500
Various	Various small contracts (lab and other equipment)		Various contractors	-	358,612
MOTORCYCLE PKG 3	Motorcycles		Viet Nhat Motorcycles	29 Nov 2007	146,520
-	Vehicles	14	UNOPS	03 Sep 2009	386,311.05
PKG 11: JE VACCINES	JE Vaccines	62,400 DOSES	Duc Minh Medical Joint Stock Company	08 Jan 2008	131,040.00
PKG 22: JE VACCINES (ADDL)	Additional JE Vaccines		Duc Minh Medical Joint Stock Company	18 Oct 2008	112,800.00
PKG 34: IMCI TREATMENT DRUGS	IMCI Treatment and Drugs and Equipment		Viet Hung Pharmaceutical Company Limited	21 Aug 2008	77,896.80
PKG 47 ULV SPRAYERS	ULV Sprayers	40	An Dong Technical Equipment Company Ltd	26 Nov 2008	68,600.00
PKG 48 - INSECTICIDES	Insecticides	11,178 liters	The Eastern Medical Equipment Company Ltd	28 Nov 2008	308,736.36
PKG 49:CHOLERA VACCINES	Cholera vaccine	250,000 doses	Company for Vaccine and Biological Products	25 Sep 2008	100,000.00
Various	Various small contracts (Supplies)				1,346,181.15

SUMMARY OF ECONOMIC AND FINANCIAL ANALYSES

A. Rationale for Investment

1. The economic and equity-based rationales for investing in communicable diseases control (CDC) are extremely strong. There are strong linkages between the burden of infectious diseases and labor productivity. Despite the high economic rates of return for typical investments in the health sector, private participation is suboptimal. This under-investment is due to the market failures that characterize health investment in general, services targeting the poor, and services with externalities and public goods. Rural services are less attractive for private providers due to living conditions, and the inability of the rural poor to pay for market rates of services. Other market failures include incomplete information about benefits and costs of investments; differences between private and social discount rates leading to private decisions that favor short-term benefits; and intra-household decision making that typically favors male adults over children, especially girls.[1]

2. The project investment of $30 million focused on infectious diseases with major market failure characteristics—communicable diseases that spread across borders. Economic development and greater connectivity facilitate the rapid spread of diseases across borders. The SARS outbreak in 2003 and the avian influenza epidemics in 2004 and 2005 highlighted the vulnerability of the local economy. Although SARS did not have much direct impact on Cambodia, the Lao PDR, and Viet Nam (the CLV countries) in terms of infected people and fatalities, the disease had a profound economic impact and slowed economic growth temporarily. Avian influenza continues to have a major impact on poor farmers. The World Health Organization (WHO) predicts at least one emerging disease per year. But also re-emerging infections like malaria, dengue, cholera, anthrax, endemic diseases like helminthiasis, digestive diseases, and measles have a major impact on the poor, and their timely control can result in huge household and government savings. HIV/AIDS may have less economic impact, but can dramatically reduce life expectancy and distort social structures, with major consequences on child rearing.

B. Project Beneficiaries and Benefits

3. The project had several types of beneficiaries: (i) direct beneficiaries in terms of avoided morbidity and mortality, and the family of direct beneficiaries in terms of savings on medical costs and lost labor; (ii) indirect beneficiaries in CLV countries and beyond through the control of communicable diseases; (iii) the governments in terms of a reduced burden of epidemics; and (iv) the public in general in terms of protecting business continuity and economic growth. At the time of project appraisal, the CLV countries totaled nearly 100 million people, about 17 million of whom were living below the international poverty line of $1 per day (purchasing power parity). Many of these are poor ethnic minorities living in remote border areas, where the prevalence of communicable disease is high. The project targeted vulnerable groups in border areas and along economic corridors, but isolated communities are less likely to have benefited from the project because of travel constraints. On the whole, the project interventions, controlling common infections, have benefited both rural and urban poor, but they did not specifically target women and ethnic groups. Given data constraints, it is not possible to analyze all these potential implications, and only the more direct project costs and benefits have been assessed.

[1] Knowles, J. 2003. *Health Nutrition and Infectious Disease and Economic Growth in Cambodia*. Bangkok.

4. The goal, outcome, and outputs are described in the Design and Monitoring Framework in Appendix 1, and are the basis for the economic analysis. The project likely contributed to the overall improvement of MDG indicators, in particular in Cambodia and the Lao PDR, but a special study would be required to calculate the likely contribution of the project to the MDGs. The project helped reduce the burden of common diseases in targeted provinces in the Lao PDR and Viet Nam, less so in Cambodia, through a combination of early response and community level interventions. In particular, it helped contain the HIV epidemic in the Lao PDR and in selective provinces in Viet Nam by targeting hotspots. It also helped to dramatically reduce the burden of soil and food transmitted helminthes in the CLV countries; schistosomiasis in the Lao PDR through education and mass drug administration; and Japanese encephalitis through vaccination and education in Viet Nam. On the other hand, a steep increase in diarrheal and respiratory infections was reported in Cambodia, in part due to a major cholera outbreak. The CLV countries witnessed a major dengue outbreak in 2007. On the whole, dengue declined substantially in the Lao PDR and Viet Nam but increased in Cambodia. It is not clear to what extent this also reflects improved reporting systems, as the project, with the support of WHO and other technical partners, helped set up surveillance and response teams in all provinces in Cambodia and the Lao PDR, and 15 provinces in Viet Nam.

C. Cost-Benefit Analysis

5. The initial quantitative cost-benefit analysis for the project followed the methods outlined in ADB's *Guidelines for the Economic Analysis of Projects*.[2] A similar analysis has been used for project evaluation. The initial analysis covered 25 years in constant 2005 dollar prices. Key assumptions were (i) the economic opportunity cost of capital is 12%; and (ii) the opportunity cost of labor or the shadow wage rate for adults is $200 per year. Incremental recurrent costs were calculated for the 25 years after the 5-year project implementation period. Taxes and duties accounted for a small proportion of the project costs.

6. Key project benefits included in the analysis are: (i) cost savings due to increased health awareness and reduced disease prevalence; (ii) enhanced income of both rural and urban income earners who care for the sick; and (iii) decreased costs associated with the outbreak of emerging diseases such as SARS or avian influenza. These benefits were calculated for surveillance and response and CDC in vulnerable populations, as well as sexually transmitted infection/HIV in migrant populations in the region.

7. Output 1 was designed to strengthen the surveillance and response system as a whole. A better-functioning system, which includes disease reporting, diagnosis, and responsiveness, would increase capacity to identify and curtail the spread of infectious disease. Preventing and quickly responding to outbreaks of endemic diseases such as measles, cholera, typhoid, and a range of other notifiable diseases, including SARS and avian influenza, should reduce the number of cases and, hence, the burden of disease in the CLV countries. However, the incidence of emerging diseases remains difficult to estimate, given the limited data.

8. Targeted surveillance and response, along with targeted control of endemic diseases, reduced the burden of these diseases and generated economic benefits largely through reduced out-of-pocket expenditures. A number of surveys have been undertaken across the CLV countries examining the economic costs that outbreaks of dengue and HIV/AIDS inflict on household incomes, savings, and expenditure. In summary, the findings show that increased

[2] Bloom, E. and P. Choynowski. 2003. *Economic Analysis of Health Projects: A Case Study in Cambodia, ERD Technical Note No. 6*. ADB: Manila.

health awareness and improved CDC leads to cost savings. Out-of-pocket savings may flow from a reduction in (a) transport costs and (b) treatment costs, as a result of more efficient services.[3] Better health resulting from health awareness activities means significantly less out-of-pocket health expenditures. Savings of $5 per person were assumed for public health project implementation. Second, the income of adults increases. Adults often have to care for sick children or may contract an infectious disease themselves and suffer reduced work productivity. Surveys indicate that considerable time is lost in transporting family members to health facilities (footnote 6). Third, improved disease surveillance and response reduces economic costs. The avian influenza outbreak since late 2003 is estimated to have cost Mekong countries $563 million. The largest component of economic impact relates to market restrictions. ADB estimated that the SARS epidemic led to business losses of $59 billion (measured as total final expenditures) and reduced gross domestic product by about $18 billion (0.8%).

9. The initial economic analysis estimated the economic internal rate of return (EIRR) to be 34%, and the economic net present value $29 million. The calculation is based on a large number of variables and assumptions including target population, age group reached, disease incidence, morbidity, disability, case fatality, premature mortality, disease reduction due to interventions, and wages. Based on conservative assumptions, a recalculation estimates the EIRR to be 25%, and the economic net present value $61 million. Assuming, for example, a more typical 80% reduction in the burden of worms following deworming, rather than the 50% used in this analysis, yields a much higher return. The wide discrepancy in net present value is mainly due to higher productivity gains than anticipated following strong economic growth and an increase in wages. The EIRR also does not include savings resulting from avoiding treatment for dengue, worms and HIV, which in the case of dengue and HIV can quickly equal the yearly average per capita income. The benefits of epidemic control are hard to assess and are estimated at a low net present value of $18 million. If it could be demonstrated that a major outbreak like SARS had been contained, this would be much higher. The EIRR also does not include other factors such as improvements in health and education systems' efficiency; in decentralization and local capacity; in women's knowledge, skills, employment opportunities, and access to services (gender benefits); and in cognitive development and school performance. All in all, the EIRR is hard to estimate, but all evidence suggests a high return on investment.

E. Financial Sustainability Analysis

10. The project's recurrent costs after project completion mainly includes the cost of running the surveillance and response system, and the dengue control program, including laboratory services. The medical supplies for mass drug administration are provided by WHO. Regional coordination and knowledge management are mainly financed through the salaries of existing government staff. Initial recurrent cost estimates emerging from the project were $1.7 million in 2009. However, actual recurrent cost estimates are closer to $3.6 million (Table 1). Recurrent cost financing is challenging the Lao PDR, in particular, because of low overall health spending. Economic prospects for the Lao PDR, a resource-based economy with a small population, are good; and bridge funding is provided under the second CDC project, and by the Ministry of Finance as counterpart funds for the tranche releases of the ADB-financed Health Sector Development Program. Steps are being taken to increase domestic health sector financing, such as through support from the Nam Teun 2 hydropower project.

[3] ADB. 2008. *Report and Recommendation of the President to the Board of Directors on a Proposed Grant to the Lao PDR for the Health Sector Development Program*. Manila.

Table 1

2011	Cambodia	Lao PDR	Viet Nam
	$		
Population	14,702,000	6,480,000	87,840,000
Per capita income	878	1262	1408
Total health expenditure % GDP	5.7	2.8	6.8
Public spending as % total spending	43.1	60.3	44.3
Total public spending on health	317	138	3725
Total recurrent public spending	158	69	1863
Total recurrent project spending	1.1	0.8	1.7
% project spending on total recurrent spending	**0.7**	**1.1**	**0.1**
Public health spending as % government spending	6.1	6.1	9.4

E. Conclusions

11. The economic and social benefits of undertaking the CDC project were substantial. The analysis demonstrates a high EIRR of 28%, which is likely an underestimate as many benefits cannot be quantified. However, the project is less sustainable in view of the high recurrent cost, at least until health sector financing improves, in particular in the Lao PDR.