ASIAN DEVELOPMENT BANK **RRP:VIE 30285**

REPORT AND RECOMMENDATION

OF THE

PRESIDENT

TO THE

BOARD OF DIRECTORS

ON A

PROPOSED LOAN

TO THE

SOCIALIST REPUBLIC OF VIET NAM

FOR THE

RURAL HEALTH PROJECT

October 2000

CURRENCY EQUIVALENTS
(as of 26 September 2000)

Currency Unit	–	Dong (D)
D1.00	=	$0.000070
$1.00	=	D14,204

For the purpose of calculations in this report, a rate of $1.00 = D14,000 is used. This was the rate prevailing at the time of project appraisal.

ABBREVIATIONS

ADB	-	Asian Development Bank
AusAID	-	Australian Agency for International Development
BCC	-	behavior change communication
CBM	-	community-based monitoring
CHC	-	commune health center
CPMU	-	Central Project Management Unit
DALY	-	disability adjusted life years
DHC	-	district health center
EMDP	-	Ethnic Minorities Development Plan
GDP	-	gross domestic product
HIV/AIDS	-	human immunodeficiency virus/acquired immunodeficiency syndrome
ICP	-	intercommune polyclinic
IEC	-	information, education and communication
MIS	-	management information system
MOH	-	Ministry of Health
NGO	-	nongovernment organization
ODA	-	overseas development assistance
O&M	-	operations and maintenance
PHC	-	primary health care
PMU	-	project management unit
PPMU	-	provincial project management unit
SMS	-	secondary medical school
TA	-	technical assistance
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nations Children's Fund
VHIA	-	Viet Nam Health Insurance Authority
VHW	-	village health worker
WHO	-	World Health Organization

NOTES

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

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LOAN AND PROJECT SUMMARY

Borrower	Socialist Republic of Viet Nam
Project Description	The Project will focus on providing primary and preventive health care to the poor and disadvantaged, including ethnic minorities, women, and children, in the rural areas of 13 provinces of Viet Nam. It will improve access to quality health services by upgrading health centers in rural areas and enhancing the skills of health care service providers. The Project will also strengthen the demand for health services through targeted information, education and communication activities, improved community participation, and more equitable health financing. In particular, the Project will support the Government's scheme to provide free health cards to the poor. The Project will also support preventive health care by strengthening food safety infrastructure and behavior change communication (BCC) centering on human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), prevention of injuries and accidents, tobacco use, malnutrition and reproductive health. United Nations Population Fund, United Nations Children's Fund, and World Health Organization will cofinance the Project on a parallel basis.
Classification	Primary objective: Poverty reduction Secondary objective: Human development
Environmental Assessment	Environmental category: C Environmental implications were reviewed, and no significant adverse environmental impacts were identified.
Rationale	Despite impressive achievements in the health sector, health status and the use of health services in Viet Nam remain much poorer in rural areas than in urban areas. These inequities are even more stark in poor and remote rural areas and those inhabited by ethnic minorities. Poor health is both a cause and effect of poverty. Improving the health status of people in rural areas will substantially contribute to poverty reduction. This will require interventions that address both demand- and supply-side constraints. More appropriate and better quality services need to be provided in rural areas. Management and supervision of health services need to be improved. Financial barriers to access must also be addressed through supporting innovative health financing mechanisms. At the same time, there is an urgent need to pay greater attention to prevention activities, generating demand for services, and ensuring greater community participation in the provision of services.
Objectives and Scope	The objective of the proposed Project is to improve the health status of the rural population, especially the poor and disadvantaged, in 13 provinces. The objective will be achieved by (i) promoting access to quality primary health care (PHC) services—with special emphasis on

improving the quality of health services for women, children, the poor and ethnic minorities—by upgrading preventive and curative health structures, basic equipment, and staff skills; (ii) strengthening overall financial management, facilitating government policy for providing health care to the poor, and developing a pilot model for voluntary rural health insurance; (iii) improving the Ministry of Health's management capacity to implement PHC programs; and (iv) strengthening communication support to services—especially those focused on reproductive health, HIV/AIDS, injury prevention, smoking, and nutrition—through community participation.

The Project has three components: (i) improving access to quality care; (ii) improving the health system; and (iii) strengthening prevention and community participation.

Cost Estimates

The total cost of the Project including physical and price contingencies, and taxes and duties is estimated at $98.7 million equivalent. Of this amount, $26.7 million equivalent, or 27 percent of the total cost, is the foreign exchange cost, and $72.0 million equivalent, or 73 percent of the total cost, is the local cost.

Financing Plan

($ million equivalent)

Source	Foreign Exchange	Local Currency	Total Cost	Percent
ADB	25.8	42.5	68.3	69.2
UNICEF	0.5	0.5	1.0	1.0
UNFPA	0.2	0.3	0.5	0.5
WHO	0.2	0.1	0.3	0.3
Government	0.0	28.6	28.6	29.0
Total	**26.7**	**72.0**	**98.7**	**100.0**

ADB = Asian Development Bank, UNFPA = United Nations Population Fund, UNICEF = United Nations Children's Fund, WHO = World Health Organization.

Loan Amount and Terms

The equivalent in various currencies of Special Drawing Rights 52,354,000 ($68.3 million equivalent) from the Asian Development Bank's (ADB's) Special Funds resources, with a term of 32 years, including a grace period of 8 years and an interest charge of 1 percent per annum during the grace period and 1.5 percent per annum thereafter, and equal amortization.

Period of Utilization

Until 31 December 2006

Executing Agency

Ministry of Health (MOH)

Implementation Arrangements

The Project will be implemented by a central project management unit established within MOH and by provincial project management units

established within the provincial departments of health in the 13 project provinces. Overall guidance will be provided by a project steering committee, chaired by the minister of the Ministry of Health, with representation from concerned departments of MOH, Ministry of Finance, Ministry of Planning and Investment, and the State Bank of Viet Nam.

Procurement

All ADB-financed procurement for the Project will follow ADB's *Guidelines for Procurement*. Civil works under the Project are scattered throughout the country and are not likely to attract the interest of international contractors. Thus, it is proposed that civil work contracts be awarded on the basis of local competitive bidding (LCB) procedures acceptable to ADB. Contracts for the supply of materials, equipment, and medical supplies in packages valued at $500,000 or more will be procured through international bidding; contracts valued at less than $500,000 will be procured through international shopping. Some medical equipment (e.g., hospital beds, delivery beds, and tables) that is locally produced and is unlikely to attract foreign suppliers will be procured through LCB. Minor items or packages costing $100,000 or less will be procured under direct purchase procedures in accordance with Government rules acceptable to ADB.

Consulting Services

One international (8 person-months) and 98 domestic consultants (522 person-months) will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. The consultants will (i) prepare and adapt integrated care guidelines and quality of care guidelines (1 international and 2 domestic); (ii) prepare training modules for district and commune service providers (12 domestic, including 3 for ethnic minority areas); (iii) undertake feasibility studies for the rural health insurance pilots, design health insurance cards, develop a health insurance management information system, and develop training programs for health insurance officials (10 domestic); (iv) develop training modules and materials for management training for provincial and district officials (10 domestic); (v) prepare and adapt guidelines for BCC planning and implementation, and develop training modules and materials for training BCC officials (3 domestic); and (vi) provide support to village health workers (5 domestic). In addition, domestic consultants will be recruited for (i) a survey and design of health facilities (31 domestic); (ii) training health staff in using management information system (4 domestic); (iii) undertaking the household survey and analyzing of data to evaluate the impact of the Project (15 domestic); and (iv) preparing guidelines for bidding and procurement of equipment (6 domestic). This level of consulting services is the minimum required to effectively carry out the Project.

Estimated Project Completion Date

30 June 2006

Project Benefits and Beneficiaries

The Project will improve access to quality health services for 12.7 million people (about 6.7 women and 6 million men) living in rural areas, thereby directly or indirectly improving their health status. The Project will especially benefit 3 million women in the reproductive age group, 1.3 million people from ethnic minorities, 6.2 million poor people, 2 million children, and 1.5 million elderly. The Project will benefit about 1.5 million pregnant women and 1.3 million newborn children during the project period. Due to self-selection and specific project design, the majority of the project beneficiaries will be the poor and women. In addition, the project interventions will directly benefit 800,000 poor people through free health cards.

The Project will train about 7,500 health care providers, the majority of whom will be women.

At the national level, the Project will assist in establishing standards and procedures for ensuring food safety. It will improve management and supervision of health services and assist the government in making health financing more equitable and efficient. The Project will also build capacity for preventive health and BCC at the provincial and district levels.

I. THE PROPOSAL

1. I submit for your approval the following Report and Recommendation on a proposed loan to the Socialist Republic of Viet Nam for the Rural Health Project.

II. INTRODUCTION

2. As requested by the Government, the Asian Development Bank (ADB) provided project preparatory technical assistance[1] in 1999 to help prepare the Rural Health Project to improve the health status of the rural population, especially the poor and disadvantaged, in 13 provinces of Viet Nam. The proposal was developed with the close participation of a wide range of stakeholders including representatives from the related government ministries, provincial governments, nongovernment organizations (NGOs), potential beneficiaries, service providers, and international development agencies. The Project will be cofinanced by the United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), and World Health Organization (WHO) on a parallel basis. Fact-finding was carried out from 14 January to 2 February 2000. An Appraisal Mission[2] was fielded 5-24 April 2000. The project framework is in Appendix 1.

III. BACKGROUND

A. The Health Sector

3. Viet Nam has achieved a health status level beyond what is expected for a country at its stage of economic development. Life expectancy, for example, is 11 years longer than that of other countries at a similar stage of economic development. Infant mortality in the past 20 years has been significantly reduced, from 90 per 1,000 live births in 1980 to 38 per 1,000 now. Immunization is almost universal and fertility rates have fallen by about 25 percent in the last five years to 2.4 children per women. Compared with other economic development measures, malnutrition is one of the few indicators in which Viet Nam may be lagging–39 percent of children are malnourished.

1. General Health Patterns

4. Viet Nam is currently facing epidemiological polarization whereby communicable diseases coexist with noncommunicable diseases. While infectious, vector-borne and other communicable diseases still account for a large percentage of mortality and morbidity, especially in rural areas, the incidence of noncommunicable diseases is also rising rapidly. The rural population has three times as large a burden of disease per unit population as the urban population. At the same time, the rural populations have a substantial burden of noncommunicable diseases, some of which can be traced to injuries and chemical contamination during the Indochina war of the 1960s and later.

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[1] TA 3077-VIE: *Rural Health Project*, for $600,000, approved on 25 September 1998.

[2] The Mission comprised I. Bhushan, Senior Project Economist/Mission Leader; T. Konishi, Young Professional; D.C. Jayasuriya, Consultant; and E. Whitney, Consultant.

5. The aging population, increasing trend towards urbanization, and unhealthy lifestyles are expected to further increase the incidence of noncommunicable diseases and thereby add to the disease burden. For example, mortality from coronary disease in Viet Nam is projected to increase by 60 percent from 1995 to 2010. The rate could increase by even more if smoking becomes more widespread. Similarly, increased hypertension and deaths from apoplexy will result. Deaths caused by chronic pulmonary obstructive disease could increase due to aging, pollution, and smoking. Cancers are expected to increase at similarly rapid rates. Diabetes mellitus and endocrinologic diseases have not been widely studied, but it is estimated that diabetes afflicts 1-2 percent of the population.

6. Since about 1990, accidents have become a leading cause of mortality and morbidity, particularly for men aged 15-49. In 1990-1997, mortality caused by traffic accidents increased three times. The prevalence of tuberculosis has been falling due to overall development, but may have slightly increased in recent years, in part due to the growing HIV/AIDS[3] problem. The disease burden of malaria has been significantly reduced for the vast majority of the population. In 1998, the Ministry of Health reported 383,000 cases with 183 deaths.

a. Health and Poverty

7. Health status is closely associated with poverty in Viet Nam. Sickness and ill-health lead to poverty, and the health status of the poor tends to be worse than that of the nonpoor. The occurrence of illness—leading to loss of labor resources and significant costs for curative health care and associated expenditure—is reportedly one of the prominent causes of poverty. Studies show that once a household loses an adult member to sickness or disability, income levels suddenly drop and the household slides into poverty. The burden of disease—as measured by the disability adjusted life years (DALYs)[4] lost per thousand people—among the poorest rural young children is more than 27 times the rate among those in urban areas. For the entire population, the poor rural population has a four fold greater disease burden than urban dwellers.

8. Malnutrition among children less than 4 years is nearly three times greater for the rural poor than for urban dwellers. The average duration of illness restricting normal activity is greater among the poor than the well-off—17.5 percent greater in rural areas and 33 percent in urban areas. The infant mortality rate in 1998 in the rural poor areas of the country was nearly 50 percent greater than that in all rural areas and fourfold greater than that in urban areas. This difference partly reflects the relatively poor availability of maternal and child health services in rural areas. Similarly, in the mid-1990s, life expectancy was over 10 years greater in the more urban and relatively affluent Red River delta (70.8 years) than in the poorer and mountainous central highlands (60.5 years).

b. Children and Women

9. Infant mortality in rural areas is typically 50 percent higher than that in urban areas. In addition, there are pockets of poor and disadvantaged groups, such as ethnic minorities, where the rate is 50 percent higher than that in the average rural area. The leading causes of infant mortality in areas of high mortality are acute respiratory infection, diarrhea, malaria, and diseases preventable by immunization. Respiratory infections and diarrhea account for nearly 60 percent of infant mortality. Neonatal mortality is mostly due to umbilical tetanus (about 40

[3] Human immunodeficiency virus/Acquired immunodeficiency syndrome.

[4] Disability adjusted life year (DALY) is defined as the present value of the future years of disability-free life that are lost as the result of premature death or cases of disability occurring in a particular year.

percent), trauma at birth (about 30 percent), and pneumonia (about 15 percent). Malnutrition is a major contributing factor in most infant deaths occurring in poor areas.

10. Women of reproductive age bear more than 80 percent of the burden of communicable diseases, nutritional deficiency, and perinatal and maternal conditions in the rural areas. Maternal mortality in Viet Nam is estimated to be 110 for every 100,000 live births—160 in rural areas and 200 among the poor. In the remote mountainous areas, maternal mortality is probably four times that in the average rural area. This is because services to address sudden acute conditions that may occur during delivery are simply not available. The leading causes of maternal mortality are hemorrhaging, postpartum infection, eclampsia, tetanus, and uterus rupture. Thirty percent of women of reproductive age suffer from malnutrition, which is closely linked with women's social status and stunting from chronic protein-energy malnutrition. This impacts on women's quality of life, productivity, stamina, and capacity for postnatal recovery. Most of these conditions can be prevented through regular prenatal examinations and medical supervision during risky pregnancies.

11. While the total fertility rate has fallen to 1.8 children per woman in urban areas, the rate is high in rural areas (2.9 children per woman), especially among ethnic minority groups (3.4 children per woman). The contraceptive prevalence rate is 79.3 percent at the national level; the figure is lower in rural areas (74.4 percent) and much lower in ethnic minority areas (66.4 percent). Although no reliable figures are available, it is widely believed that the prevalence of reproductive tract infections is very high among women of reproductive age and contributes to sexually transmitted diseases. HIV/AIDS is a growing concern in the country, especially in areas bordering the People’s Republic of China and Cambodia. A recent World Bank study indicates that domestic violence, which affects women's mental and physical health status, is widely prevalent.

2. Health System

12. The public sector health system in Viet Nam is organized in four tiers. At the central level, the Ministry of Health (MOH) is responsible for formulating health policies and establishing technical standards for the health system. MOH has 15 departments divided into general departments (planning, personnel, finance, legislation, international cooperation and inspection board) and specialty departments (therapy, preventive medicine, mother and child care and family planning, traditional medicine, medical equipment and construction, drug administration and food safety and hygiene). MOH also has a Health Strategy and Policy Center and a Health Education Center. In addition, the central offices of MOH operate 10 specialty hospitals, 19 institutes (typically involved in the vertical programs), 11 medical and pharmacy schools and state-owned enterprises such as the health insurance company, a publishing corporation, and an equipment corporation. The organization of MOH is shown in Appendix 2.

13. The country has a well-developed infrastructure of health services with a wide network of provincial, district, intercommune, and commune health centers. On average, families are 4.4 kilometers (km) from a commune health center and 10 km from a district health center.

14. At the provincial level, the provincial People’s Committee supervises the health service and is responsible for managing and directing health care. It is also responsible for preventive medicine centers, provincial-level medical training schools, local production of medical supplies, and operating the provincial hospital. The provincial health service, while under the administrative control of the People’s Committee, receives technical guidance and monitoring from MOH.

15. The district health center (DHC) is a unit of the provincial health service under the direct technical management of the director of Provincial Health Services, with guidance and policy provided by the district People's Committee. The DHC manages the first-level referral curative services and is responsible for formulating and implementing a district health plan; providing curative, preventive, and family planning services in the district; and giving technical support to intercommune polyclinics (ICPs) and commune health centers (CHCs).

16. The CHC is the first level of health care in the public health system. It is responsible for primary-level curative care as well as preventive care, normal delivery, provision of essential drugs, family planning, and overall health improvement in the community. It functions under the guidance of the DHC for technical matters and under the chairman of the commune People's Committee for planning and supporting health development activities in the commune.

17. The village health worker (VHW) is an integral part of the health system network. About 40 percent of the 80,000 villages have a VHW. VHWs play a particularly significant role in extending health care services in poor and remote areas, in ethnic minority communities, and in the highly populated communes. MOH policy is to increase the coverage of these workers.

18. Private sector services have grown rapidly in recent years. The number of private health providers has almost doubled since 1996. However, this growth is less visible in terms of health clinics than in the number of private pharmacies, which grew from an estimated 2,000 in 1990 to around 7,500 by end-1996.

3. Health Care Utilization

19. Coverage and utilization of maternal and child health services are adequate, except among ethnic minorities and poor people. About 89 percent of deliveries are supervised by a trained service provider: 99 percent in urban areas and 87 percent in rural areas. However, the quality of service providers varies significantly. While 75 percent of deliveries are supervised by a doctor in urban areas, only 19 percent of rural deliveries are so supervised.

20. The rural poor use public health services only about half as much as the urban population do. The pattern of utilization is the most strikingly different for hospital outpatient services, where the rural poor use only 25 percent of that by the urban population. Surveys show that, once sick, the poor are less likely to use health facilities and more likely to self-medicate. Even when they use health services, they are more likely to go to unqualified providers and low-quality health facilities. This is a manifestation of both more limited physical access to quality health services in rural areas and lower affordability of health services.

21. Studies on the quality of health services point to the need for modernizing equipment, upgrading dilapidated facilities, improving staff skills and motivation, and increasing supervision and support. Ninety percent of the surveyed DHCs have difficulties in providing quality care due to limited equipment. District laboratory capability is extremely limited, and in most facilities, the X-ray equipment is very old. Referral services for emergencies, surgery, and obstetric and gynecological services can also be significantly improved by the provision of the basic equipment prescribed for these services by MOH standards. Staff are available at most districts, but as services have not been available for some time, their skills have become outdated. Very few ICPs have any diagnostic equipment.

4. Human Resources

22. MOH, with a staff of approximately 213,000 employees, is the largest employer of health personnel in Viet Nam. There are over 10,000 health workers in other ministries. The armed forces operate a medical service independently of the health sector.

23. There are substantial differences in access to qualified health personnel between provinces and even within provinces. Ho Chi Minh City, Hai Phong, and Quang Ninh, for example, have at least 5 doctors per 10,000 population, while in provinces of the northern highlands and Mekong River delta, this ratio is significantly lower—2 doctors per 10,000 population. Within a province, health resources tend to be concentrated in the provincial capitals and, to a lesser extent in the districts.

24. The Government has consistently placed high priority on the development of human resources for health. In the early part of the transition after *doi moi,* as the number of community-supported commune health workers rapidly declined, the Government quickly adopted a policy of providing financial support for these workers directly from the Central Government budget. This reversed the decline in utilization of services at the CHC. The current policy is to provide 40 percent of CHCs with a physician by the year 2000, the current coverage being 22.5 percent.

25. Many health workers have not had sufficient opportunity to upgrade their skills and technical knowledge. Consequently, there is a need for retraining in the districts and communes to upgrade workers' skills and inform them of advances in medical science and new technology. It is difficult to precisely assess the quality of health staff in the project provinces. However, the low utilization of health services and high morbidity rates for some common diseases reflect the possibility that quality of care is an issue. In remote areas, the quality of the typical health staff can be improved.

26. The formal training system of MOH includes a network of university and technical training schools some 80 in all nationwide. The Department of Science and Training is responsible for the technical aspects of the training. Each province has a secondary medical school (SMS), which trains mainly secondary-level personnel and, occasionally, elementary-level health workers. There are approximately 50 SMSs, 10 training centers, and 7 national schools of nursing, pharmacy, traditional medicine, and medical technicians that train secondary-level workers. Provincial SMSs and training centers are under the control of the provincial health service.

5. Health Financing

27. The health sector has grown rapidly in recent years. Per capita spending for health increased from about $12 in 1993 to more than $19 in 1998. About one half of total health expenditure was spent on publicly operated health facilities and related preventive programs. Privately provided diagnostic services comprised about one sixth of the total, with pharmaceutical services making up about one third. Households remain the dominant source of financing health care services, accounting for about 80 percent of all health expenditures. The share of health expenditures financed by health insurance is 2-2.6 percent. International aid agencies finance a similarly small share. User charges constitute an important source of revenue for hospitals, and contribute about 7 percent of total health expenditure. The Government at all levels finances the remaining 11-15 percent from its general revenues. While private sector spending for health care services clearly dominates the sector, public sector

spending for health has increased significantly since 1986. Per capita government expenditure on health increased 4.1 times between 1986 and 1998. However, it still represents only over 1.0 percent of gross domestic product (GDP) per capita, and at less than $4 per capita remains much lower than the World Bank-recommended level of $12 to provide basic primary health care (PHC) services.

28. Health insurance, introduced in 1992, covers 9.8 million people—about 15 percent of the population. There are two insurance programs operated by the same agency. A compulsory program of health insurance includes all government employees, workers of state-owned enterprises, foreign-owned firms, and international organizations and any private firm with more than 10 employees. The voluntary health insurance scheme is intended to primarily cover family members of those insured under the compulsory scheme, farmers, other rural populations, school students, and informal sector workers. While the compulsory program has enrolled more than 75 percent of its target population, the voluntary program has barely made a dent into its intended target group. This implies that the growth of health insurance in the future must focus on the population intended to be served by the voluntary program.

6. Major Issues in the Sector

a. Equity and Quality of Care

29. One of the biggest challenges facing policy makers in the health sector is the large inequities in health outcomes and utilization of health services. People in rural areas and the poor are at greater disadvantage than their urban and better-off counterparts. Analysis shows that while the health care needs of women, children, and the poor are much greater than those of others, these groups do not adequately use health services. The major reason for low utilization of health services by the poor is the high cost. Other contributing factors are the poor quality of services in rural areas and the indifference of service providers. For ethnic minority communities, difficult geography and barriers of language and culture also play an important role. These factors have contributed to increased use of self-treatment among disadvantaged groups.

30. Another priority issue for health services is the need for improved quality of care. The economic transition, with general fiscal constraints and the disappearance of the agriculture cooperative system that supported CHCs, has resulted in marked deterioration of PHC services at all levels. This is manifested in dilapidated buildings, acute shortage of equipment and supplies, inadequate retraining, and low productivity of service providers due to difficult working conditions and poor salaries. The experience of the Population and Family Health Project[5] shows that improvements in quality of care can be achieved by supporting services that are required to meet the most serious health needs at commune and district levels. These needs include complications from delivery, access to referral facilities for high-risk pregnancies, and immediate referral services for childhood diseases and accidents. These services must be readily available at district centers.

b. Changing Disease Patterns and Emerging Challenges

31. Viet Nam is undergoing an epidemiological transition: the pattern of diseases is changing from a predominance of communicable diseases to a predominance of largely noncommunicable diseases. A significant emerging issue for the health system is how to

[5] Loan 1460-VIE: *Population and Family Health*, for $43 million, approved on 19 September 1996.

appropriately address the changing burden of disease. Evidence shows that this changing pattern of disease is already affecting the health system in some rural areas. The challenges for the health system are to provide the most appropriate cost-effective care, and to diagnose the early signs of lifestyle diseases including cancer and cardiovascular conditions before they evolve into life-threatening conditions entailing costly treatments for the individuals and the health system. This will also require greater emphasis on health education and behavior change communication (BCC).

32. The rapid increase of HIV/AIDS infection, growing illicit drug use, declining but still high levels of tobacco use, a large increase in accident-related deaths, and persistently high levels of child malnutrition require priority attention. In addition, the area of food hygiene and safety is emerging as a major public health challenge. The number and types of food processing businesses and facilities are expanding at a phenomenal rate in response to increasing demand for ready-to-eat food and the withdrawal of the government from such services. Many of these new enterprises are using ingredients and chemicals that, if not efficiently monitored, can create major health hazards for the public. Chemical contamination caused during the Indo-China war is also believed to have affected the food chain and poses a threat to health of the population. The food safety inspection program, particularly at the province level, needs substantial strengthening.

c. Health Sector Financing

33. The overall public financing of the health sector in Viet Nam is low by international standards. Moreover, public financing remains concentrated on subsidizing curative services. One unfortunate consequence of the low levels of public financing is that the poor have to bear the burden of high user charges at public health facilities. These fees have discouraged use. In addition, there are large disparities in government health expenditure across provinces since richer provinces are able to spend more than poorer provinces. The situation also exacerbates inequities in provision of health services across the country. Pharmacies take a large share of spending on health. Current spending patterns show inefficiency due to poor prescribing practices and overuse of antibiotics.

34. User fee collection has increased dramatically in recent years—increasing more than four times from 1991 to 1998. In theory, the poor and disadvantaged should not be subject to user charges. In practice, however, these guidelines rarely work, especially in the communes. Studies have found a weak correlation between fee exemptions and household income. Identification of the poor at public facilities is based on the subjective judgment of the health providers.

35. Health insurance primarily covers people working in the formal sector, thereby almost completely leaving out the poor. Comprehensive coverage through voluntary health insurance can potentially make a significant contribution to health financing requirements and effectively pool the health risks of the population. Appropriately designed health insurance programs can yield both efficiency and equity gains. Insurance policies can influence where people seek care and discourage inefficient use. The health care provider can be influenced by the design of the payment mechanism so that the most appropriate care is provided. The poor can also be targeted by directly subsidizing their premiums.

d. Health Management

36. The health system works under conditions dominated by the past culture of central planning. This is manifested in two ways: first, significant amounts of funds and resources are allocated through the rigid structure of top-down vertical programs, which are not adequately responsive to local needs. Second, previous processes have never offered opportunities for the development of capacity and initiative for program planning and implementation at the provincial and district levels. There is a strong need to integrate various vertical programs and decentralize the planning functions of MOH, while developing capacities at provincial and district levels so that they can provide effective leadership in addressing local problems. Another management concern relates to service delivery. Improvements in the referral system, supportive supervision of health facilities in districts and communes, improved management information system (MIS) and more intensive community participation can significantly improve the efficiency of services.

e. Regulation of the Private Sector

37. The national health policy encourages the development of the private sector. However, the role of the private sector in the health system needs to be clarified and supervision and monitoring of the quality of care provided by private practitioners strengthened, especially since many providers operating in the private sector are also employed in the public sector. Also, rapid expansion of retail pharmaceutical outlets in recent years has encouraged self-treatment and overuse of drugs. This unsupervised and often irrational use of drugs has resulted in high levels of antibiotic resistance, which poses a serious threat to the country's ability to control and prevent the spread of infectious diseases. Stronger efforts are required for controlling both demand for and supply of pharmaceuticals.

38. Another private sector issue that has direct impact on health is the safety and hygiene of food items available in the market. The trend toward consumption of ready-to-eat food is rising and the number of private sector suppliers of processed food items shows a manifold increase. Therefore a major challenge for the public health system is to ensure a safe and hygienic food supply. Current regulations on food adulteration remain ineffective and there are concerns about the ability of provincial health services to enforce them.

B. Government Policies and Plans

39. Government policies in the health sector support the provision of health for all, with special emphasis on the health needs of the poor and disadvantaged. The Government policy, as articulated in the Law on Protection of People's Health 1989, recognizes the major role of the government in managing, improving, and developing systems for preventing and controlling epidemics, medical examination and treatment, production and distribution of equipment and drugs, and monitoring the implementation of all regulations on professional medicine and pharmaceutical practices. Specific programs and guidelines have been developed for specific health needs, including tuberculosis, malaria, immunization, malnutrition, diarrheal disease, and acute respiratory diseases.

40. The MOH's 1996 policy statement—The Strategy Orientation for People's Health Care and Protection from Now to the Year 2000 and 2020—provides a medium-term vision for the health sector. The document lays down specific goals in terms of health status, organizational structure, training, research, promotion of management, socialization strategies, and promotion of priority health programs, placing rural health at its center. The objectives of the strategy are to

expand the health network, improve the quality and efficiency of health care provision, and implement a policy to achieve social equity in health care. The key feature of the policy is streamlining the organizational structure and developing a decentralized health care network.

41. In addition to the basic law guiding health institutions and structures, other laws that have been enacted add specificity to the strategy for achieving the basic goals. For example, for the first time, the Ordinance on Private Medical and Pharmaceutical Practice[6] provides the legal basis for private medical practice both modern and traditional. The law outlines the types of private practice allowed and the criteria for licensing of practitioners.

42. In 1989, the Government established well-defined policies and procedures for cost recovery for health services. The Government defined the types of services that could be charged to the patient, patients that were provided exemptions, and the system for distribution and use of the collected fee. This decision was replaced in 1994 by a Decree[7] providing more clarification on collection and use of fees by hospitals, including their relationship to health insurance cardholders.

43. Government policies that have evolved over the last decade pay more attention to the needs of the poor and disadvantaged. The cost recovery policy promulgated in 1994 specifically provides exemptions for the poor and disadvantaged groups. A particularly significant measure was a decision[8] on setting priorities for poor and remote communities. This decision identified 1,715 communes that will have special priority for investment in all sectors. Particular attention is placed on 1,000 of these communes where poverty reduction and other social and economic goals are specifically targeted. In addition, the Government has specific policies and guidelines for addressing priority target groups such as children and women, in response to various United Nations conventions. For example, the National Plan of Action for Child Survival is based on the 1991 law on the Protection and Care of Children. This Law entitles all Vietnamese children under six years of age to receive free medical examinations and immunizations. Recently, the Government also announced a new initiative of providing free health insurance coverage to 4 million poor people in the country.

44. The Government recognizes that, with the growing demand for processed foods and the expansion of food service establishments, there is an urgent need to ensure a hygienic and safe food supply for the population. Two recent regulations provide the policy direction and technical requirement for MOH and other agencies to establish programs that will guarantee a safe food supply.[9] These regulations assign MOH as the main agency responsible for ensuring food safety. The specific responsibilities include dissemination of information and education, inspection and monitoring analysis, and reporting on food safety activities. The regulations further define inspection and control activities that will be carried out by the provincial food safety units, including the specific tests to be performed.

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[6] Ordinance No. 26 L/CTN of October 13, 1993 on Private Medical and Pharmaceutical Practices.

[7] Decree No. 95/CP of August 27, 1994, of the Government on Collection of Hospital Fees.

[8] Decision No.135/1998/QD-TTg, July 31, 1998; Socioeconomic Development in Mountainous and Remote Communes with Special Difficulties.

[9] Directive No. 08/1999 CT-TTg, dated 15 April 1999, of the Prime Minister outlines goals and the organization of the national food safety program; Directive No. 14/1999 QD-TTg of the Prime Minster outlines the specific duties of the Minister of Health and provincial level in ensuring a safe food supply for the country.

C. External Assistance to the Sector

45. Many external agencies have been involved in financing the health sector in Viet Nam. About 179 projects have been financed by international development agencies and NGOs since 1991. However, most of the projects are small in size and scope. The details of total official development assistance (ODA) for the sector are in Appendix 3. The seven largest contributors account for nearly 90 percent of total official ODA resources to the health sector. These are ADB, Australia, Japan, Sweden, UNICEF, European Union, and World Bank. In addition, UNFPA, WHO, and the Netherlands have played an important role in strengthening the health sector in Viet Nam.

46. The annual financial flows into the health sector have almost doubled between 1991 and 1998, with $75 million of external assistance disbursed in 1998. However, external assistance in the last five years has remained almost constant in real terms. In fact, the share of ODA financing for the health sector has declined over time–from 14 percent of total health sector spending in 1991 to 7 percent in 1996 and 9 percent in 1997. Grant assistance also shows a declining trend in absolute terms and is being gradually replaced with loan funds.

47. The pattern of external assistance for health in Viet Nam has been lopsided, leaving several geographic areas and critical sectors underfunded. Assistance has been highly concentrated among a few provinces. For example, a large proportion of total disbursements of ODA over the period 1991-1998 has gone to Ho Chi Minh City, Da Nang, and Hanoi. Studies show that more than 80 percent of ODA in this period went to provinces accounting for only about 30 percent of the population. Targeting of external assistance to a few provinces may have been justified if the selected provinces were the poorest in the country. However, analysis shows no systematic relationship between external assistance and the per capita GDP of the province, with the result that some of the neediest provinces have not benefited much from external assistance.

48. The focus of external assistance has been on providing support to vertical health programs of MOH. More than 60 percent of the committed funds between 1990 and 1998 were for nine vertical programs. This focus is probably based on ease of implementation and disbursement, since vertical programs are clearly defined programs with well-developed implementation structures. Human resource development (excluding that conducted in the vertical programs) has accounted for only about 4 percent of committed external support.

49. Only recently has significant support gone into upgrading health facilities, mainly from the recent projects supported by the World Bank and ADB. The Population and Family Health Project supported by ADB and the World Bank, and the National Health Support Project supported by the World Bank cover 36 of the 61 provinces of Viet Nam. In addition, the Health Project financed by the European Union will upgrade PHC facilities in three provinces. Therefore, not counting the three relatively well-off provinces of Hanoi, Ho Chi Minh City and Da Nang, the remaining 19 provinces do not have any major support for upgrading the PHC infrastructure.

50. The presence of a large number of international agencies in the sector is a challenge for MOH. In last few years, MOH has gained valuable experience in coordinating the activities of different agencies. Recently, it demonstrated its capacity to effectively coordinate external assistance by leading a health sector review supported by all the major international development agencies and NGOs in the sector. Different international agencies have made

increasing efforts to coordinate their activities and leverage their interventions and projects around a common set of objectives and priorities.

D. Lessons Learned

51. MOH has implemented several externally funded health projects in the last decade. Some lessons learned from implementing these projects and from ADB's experience in implementing health projects in other countries are as follows:

(i) Aid agency coordination. Lack of aid agency coordination in designing and implementing projects has led to inefficient and wasteful use of resources; conflicting philosophies about health system processes including training, MIS, and information, education and communication (IEC); and delays in project implementation. Smooth flow of information among the involved international agencies is essential for optimal outcomes from project investments, during both project design and implementation.

(ii) Preproject implementation activities. Early establishment of the project management unit (PMU) and provincial PMUs and their close involvement in project preparation are important for the success of a project. It is beneficial to train senior staff in competitive bidding and project implementation procedures, before commencing project implementation.

(iii) PMU staffing. It is important to have a critical pool of full-time staff for the PMU to ensure continuity and adequate planning, support, and supervision. In general, projects largely staffed by contracted personnel and headed by junior officials have not performed well.

(iv) Involvement of community leaders. The quality of interventions and beneficiary ownership of the project investments are better when community leaders are involved and consulted during planning and implementation.

(v) Decentralization. Decentralization of appropriate management control and decision making by the PMU to the provinces increases operational efficiencies, boosts the morale of the provincial project teams, and reduces the management burdens of the central PMU.

(vi) Flexibility in project design. Assessment of the ongoing ADB-funded Population and Family Health Project highlights the need for keeping project design flexible. In several communes with large populations, slightly different CHC designs were considered more appropriate. Similarly, centrally procured drugs, from a common list of essential drugs were not found useful in many communes.

E. ADB's Sector Strategy

52. ADB's strategic objective for Viet Nam is poverty reduction through equitable growth, with special emphasis on rural development. ADB's operational strategy emphasizes that support for human development activities should focus on improving the quality of the labor force, including the health of disadvantaged groups. This approach recognizes that investments and creation of an appropriate enabling environment in Viet Nam's health sector are vital for reducing the vulnerability of the poor and disadvantaged to ill health, increasing their

productivity, and expanding their choices. The operational strategy also meshes well with ADB's recently adopted poverty reduction strategy based on the three pillars of (i) pro-poor growth, (ii) social development including development of human capital through investments in health and education, and (iii) good governance. The guiding principles for ADB activities in the health sector are elaborated in ADB's health sector policy[10] and include (i) focus on improving the health of the poor, women, children, and indigenous peoples; (ii) encouraging governments of developing member countries (DMCs) to take an appropriate and activist role in the health sector including increasing public investment in PHC health care, facilitating private sector involvement in health, and increasing the focus on public goods; and (iii) assisting DMC governments in strengthening their managerial capacity and strengthening linkages with other sectors.

53. These strategic considerations are generally relevant for Viet Nam. Specifically, a number of areas of concern have been instrumental in shaping ADB's health sector activities in Viet Nam, including (i) deterioration in the quality of publicly provided health services; (ii) declining utilization of such services, particularly by disadvantaged groups including women and ethnic minorities; (iii) need for greater clarity on the government's role in the health sector; (iv) limited capacity for policy development and planning at the central level and need for skills development at the provincial, district, and commune levels; and (v) inadequate integration of the implementation of health sector policies with policies in related sectors.

54. Given these needs and areas of concern, ADB's main objectives in the health sector in Viet Nam are to (i) help revitalize the quality of commune-level health services; (ii) help improve utilization rates, especially in rural areas, with better targeting of women, children, and disadvantaged groups; (iii) encourage shift in emphasis of public spending toward preventive and primary health care; (iv) assist in repositioning the role of the government in the sector and strengthen public-private partnership in health while ensuring equitable access to health care; (v) provide support for health policy development, strategic planning, and investment planning; and (vi) improve human resources in the health sector. In the family planning subsector, the objectives are to (i) increase coverage of family planning services with an expanded supply of contraceptive devices and methods; (ii) promote an integrated approach linking family planning with public health programs; (iii) improve and expand Viet Nam's IEC capability; and (iv) increase the involvement of the private sector.

F. Policy Dialogue

55. A health sector review,[11] supported by all major international development agencies, was recently completed. The draft report shows that investments to upgrade and improve the quality of health facilities at district and commune levels will benefit the poor. Moreover, increasing the utilization of DHCs by improving the quality and coverage of their services and promoting community participation is a cost-effective approach. The findings from the draft review formed the basis for policy dialogue with MOH. During project preparation, discussions were held with senior officials from MOH and related ministries. In addition, a workshop of key policy makers was organized to discuss the issues and options for financing health sector programs in Viet Nam. The following issues were discussed and actions agreed upon.

[10] Asian Development Bank. 1999. Policy for the Health Sector.
[11] Ministry of Health. 1999. *Viet Nam Health Sector Review.*

1. Health Care for the Poor

56. The Government is committed to improving the health status of the poor and increasing their access to quality health services. The recently introduced policy to provide free health cards to 4 million poor people demonstrates this commitment. However, the following related issues need further urgent consideration:

a. Coverage for All Poor People

57. The free health card scheme covers 4 million people, whereas the total number of poor in the country is estimated to be 28 million (37 percent of population), with the extreme poor numbering an estimated 11 million (15 percent).[12] The Government does not have the financial capacity to cover all poor people through the health card scheme at present, however, it recognizes the need to develop and test various modalities for subsidizing health care for the poor. Piloting a compulsory health insurance system is one option. The Government has agreed to review the health card scheme within two years of loan effectiveness and will introduce appropriate revisions. Using the review as basis, the Government will develop options for expanding the free health card scheme to cover a wider segment of the poor population.

b. Sustainable Level of Premiums

58. Under the free health card scheme, the Government will pay a premium of D30,000 per capita for providing health insurance to the poor. There are concerns that this premium may not be sufficient to cover the costs of health care, especially after the scheme matures. The level of premium will need to be constantly reviewed considering costs and trends in health service utilization by the cardholders. In conjunction with the review of the health card scheme, the Government will review the adequacy of the premium after gaining experience from implementation of the scheme.

c. Information Dissemination

59. Currently, the poor lack information about the health card scheme. Even service providers are not fully aware of the details of the scheme. For successful implementation, the Government has agreed to organize communication campaigns to disseminate information about the scheme to potential beneficiaries, community leaders, and service providers.

d. Reimbursement to CHCs

60. More than 90 percent of the poor live in rural communes, where they are most likely to use commune-level health services. However, the health insurance structure currently does not reimburse health care services at the commune level. The health insurance system deals with higher level health institutions, since it does not have sufficient administrative capacity to deal with the large number of CHCs. Since the inability of health cardholders to obtain free services from CHCs will defeat the basic objective of the scheme, a more effective system needs to be developed whereby CHCs are reimbursed for health care provided to the poor either on a fee-for-service basis or capitation basis. Since reimbursing CHCs on a fee-for-service basis may not be administratively feasible, the Government will consider channeling part of the premium to CHCs on a capitation basis to cover all the PHC costs. The Government has agreed to develop,

[12] World Bank. 1999. *Viet Nam Development Report 2000-Attacking Poverty.* Washington, DC.

within two years of loan effectiveness, policy guidelines for reimbursing at least all inter-commune polyclinics for services provided to health cardholders.

2. Essential Drugs

61. An adequate supply of drugs and medicines is key to improving the quality of services and raising utilization rates. Within three years of loan effectiveness, the Government will establish revolving funds for essential drugs in all CHCs in the project area, where there is no licensed drug store. This will ensure an adequate supply of good-quality drugs at the commune level. To regulate the irrational use of drugs, especially antibiotics, the Government will aim to develop, implement, and enforce a new drug law within the next two years, which will include detailed regulations on prescriptions, over-the-counter sales, and division of medical and pharmaceutical practices.

3. Project Sustainability

62. The proposed additional investments at the province level have implications for the operation and maintenance (O&M) budget for health facilities. In the absence of a corresponding increase in the budget, the project investment will not be effective in improving quality, and service delivery and project results will not be sustained. The Government has agreed to increase its health sector budget for the project provinces by 3 percent per annum in real terms and the provincial governments have agreed to allocate sufficient budgets for O&M of health facilities.

4. Food Safety

63. Chemical contamination and food adulteration are emerging as major public health problems in Viet Nam. Among the communicable diseases, diarrheal diseases contribute to the second highest burden of disease, next to influenza. The Government fully realizes the need to strengthen the policy framework for food safety and is committed to carry out policy reforms in this area. The Government will promulgate an ordinance laying down the standards for food safety and establishing procedures and role and responsibilities at different levels of administration for ensuring the hygiene and safety of food for human consumption. ADB is providing technical assistance[13] to the Government to build the capacity for implementing the provisions of the ordinance.

IV. THE PROPOSED PROJECT

A. Rationale

64. Despite impressive achievements in the health sector, health status and the use of health services in Viet Nam remain much poorer in rural areas than in urban areas. These inequities are even more stark for poor and remote rural areas and those inhabited by ethnic minorities. Women suffer the most from such inequities. Evidence shows that the economic transition has adversely affected the ability of the poor to seek access to quality health care. Malnutrition, especially among the poor, remains a challenge. In addition, there are emerging health problems related to smoking, injuries through automobile accidents, and HIV/AIDS.

[13] TA 3483-VIE: *Capacity Building for Prevention of Food-borne Diseases*, for $500,000, approved on 29 August 2000.

65. Poor health is both a cause and effect of poverty. Improving the health status of people, especially women and children, in rural areas will contribute substantially to poverty reduction. However, the situation will require interventions that address both demand- and supply-side constraints. More appropriate and better quality health services need to be provided in the rural areas, and management and supervision need to be improved. Financial barriers to access must also be addressed by supporting innovative health financing mechanisms. At the same time, there is an urgent need to pay greater attention to prevention activities, generate demand for services, and ensure greater community participation in the provision of services.

66. Although many international agencies have contributed significantly to the health sector to date, there is still a substantial financing gap in the coverage of the PHC sector in the country. Several provinces require large investments for improving health infrastructure. ADB, with the support of UNICEF, UNFPA, and WHO, is well-placed to supply and mobilize both financial and technical resources to fill this gap. The Project will support the Government's policy to improve the health status of the poor, and is in line with ADB's overarching strategic objective of poverty reduction. The Project is also in line with ADB's operational strategy for Viet Nam, which emphasizes efficient economic growth with equity and poverty reduction.

67. The Project will be implemented in 13 provinces over a five-year period. The project provinces have a population of 15 million, comprising about 20 percent of the country's total. The project provinces were selected on the basis of (i) financing needs and absence of any large externally funded project, (ii) poverty incidence, and (iii) health care needs. All have substantial financing needs for rehabilitating the PHC infrastructure. The project provinces have a much larger proportion of the country's rural and poor population than the country as a whole. In general, the health status of their people is among the poorest in the respective regions. The total proportion of the poor in the project area is 49 percent compared to a proportion of 37 percent in the country as a whole. The Project will cover 1.4 million of the ethnic minority population. Basic information about the project provinces and the selection criteria are in Appendix 4.

B. Objectives and Scope

68. The Project's goal is to improve the health status of the rural population, especially the poor and disadvantaged in 13 provinces. The specific objectives are to

(i) promote access to quality PHC services—with special emphasis on improving the quality of health services for women and children, ethnic minority groups, and the poor—by upgrading preventive and curative health structures, basic equipment, and staff skills;

(ii) strengthen overall financial management by facilitating a government policy to provide health care to the poor and developing a pilot model for voluntary rural health insurance;

(iii) improve management capacity to implement PHC programs and strengthen prevention programs at the provincial and district levels; and

(iv) strengthen community participation and support behavior change communication (BCC), especially focused around safe motherhood, child survival, nutrition, HIV/AIDS, injury prevention and smoking.

69. The Project has three components. The components and subcomponents were designed in a participatory manner with the involvement of a wide range of stakeholders, including potential beneficiaries, service providers, program managers, NGOs, related ministries, and international agencies. Several meetings and workshops were organized to obtain feedback on the Project design. An ethnic minority plan was developed under ADB-financed technical assistance[14] with the participation of representatives from ethnic minorities. The project components are described below.

1. Improving Access and Quality of Care (Component A)

70. This component will focus on improving access to and quality of health care by

(i) developing and mainstreaming national guidelines for integrated and quality health services,
(ii) upgrading health care facilities and equipment, and
(iii) training service providers.

a. Guidelines for Integrated and Quality Services (A.1)

71. The Project will develop integrated care guidelines that provide a comprehensive framework for improving the health of the rural population, especially that of children and women, through prevention, cure, and care. The integrated approach requires health service providers to have a broader understanding of care and not simply of treating the specific present condition. The purpose of the integrated care guidelines is to (a) give health workers technical guidance on how to provide comprehensive care to women and children; and (b) provide a framework for design of services, and facilities and equipment needs.

72. The guidelines will be based on in-country experience gained from implementing the Mother-Baby Package, Integrated Management of Childhood Illness strategies, and some additional elements of reproductive health. A number of linkages with other parts of the health system are required to make the integrated care concept work. The linkages will be explicitly defined for such activities as referral services, training, supervision, planning and organizing, information, support and general management. The Project will also assist in developing quality standards for each service element based on the integrated care guidelines. Quality standards will be classified in relation to input (human and material resources and organization), process (the actual practice of delivering care or prevention strategies), and output (the direct end result of input and process). Key indicators for each quality standard will be finalized and monitored. The ongoing TA Capacity Building for Rural Health[15] will also support the activities in this subcomponent.

b. Upgrading Health Facilities and Equipment (A.2)

73. The Project will strengthen CHCs, ICPs, DHCs and regional hospitals[16] in the 13 provinces to increase access and improve the quality of services. The Project will finance (i) civil works; and (ii) medical equipment, furniture and essential drugs and supplies to enable the

[14] TA 5794-REG: *Study of the Health and Education Needs of Ethnic Minorities*, for $800,000 approved on 30 June 1998.
[15] TA 3337-VIE: *Capacity Building for Rural Health*, for $600,000 approved on 14 December 1999.
[16] Regional hospitals are upgraded DHCs in remote areas. They provide services similar to those of the DHCs, but have larger capacity for both inpatient and outpatient services.

centers to deliver the basic package of PHC. The Project will provide the inputs required to bring each facility up to the specified standard.

74. **Civil Works.** The Project will upgrade or build approximately 99 ICPs, 74 DHCs, and 13 regional hospitals. The requirements have been estimated on the basis of detailed surveys during project preparation. However, the Project will update the requirements at inception to account for potential changes due to conditions including the creation of new districts and communes, unforeseen contingencies such as floods, and construction of some buildings from other sources. All civil works will be completed within the first two years of the Project, so that subsequent quality improvement measures may be institutionalized within the project period. The criteria for upgrading health facilities are given in Appendix 5. The Government has provided assurances that these criteria will be strictly followed. Also, all health facilities upgraded under the Project will be adequately maintained during and after the life of the Project, according to the agreed upon guidelines (Appendix 5).

75. For upgrading, the Project has carefully selected health facilities with good potential for being utilized. The Project may upgrade a small number of commune level health facilities in the project area, primarily located in remote and poor areas, although its main focus will be on upgrading DHCs, which function as the first level of referral and are more likely to be used by the poor. At the district level, the Project will strengthen surgery, emergency, obstetrical and gynecological services, and diagnostic activities. The Project will support the establishment of regional hospitals in each province. These centers, located in remote areas, will provide additional and specialized services for more than one district and will serve the poor and ethnic minorities.

76. The designs of health facilities under the Project will conform to the guidelines developed by MOH and will be similar to those in similar externally aided projects. The designs will provide adequate visual and auditory privacy to the patients. They will be simple and use indigenous materials for ease in local maintenance. All facilities will have adequate medical waste disposal units. The Project will not cover communes under the Primary Health Care Project funded by the Australian Agency for International Development (AusAID) in three provinces.

77. **Equipment and Supplies.** The Project will finance medical equipment, furniture, and supplies at regional, district, commune and intercommune polyclinic levels. A standard package of inputs has been developed for all levels (Appendix 6). In addition, equipment will be supplied to village midwives and commune nurses. Procurement and supply of equipment will be closely coordinated with civil works. The Project will ensure that health personnel are properly trained to use the equipment and operational manuals are in Vietnamese. The Government has provided assurances that equipment will be maintained during and beyond the project period by adequate increases in O&M budgets.

78. The Government will finance the essential drugs and supplies through its own budget or through grant financing from UNICEF or other international agencies. Revolving funds for essential drugs will be established in all communes of the 13 provinces where there are no licensed drug stores. The poor and disadvantaged will be exempted from user charges. These exemptions will be carefully monitored for proper targeting. The Government will appropriately replenish revolving funds that get depleted, especially in communes of the poor and ethnic minorities.

c. Training of Health Service Providers (A.3)

79. The Project will support two types of training activities. The first will strengthen the commune health staff by training more than 5,500 workers in the delivery of integrated care. The second will upgrade the technical skills of district staff by training about 500 doctors and 1,400 other health care providers working at DHCs. Training activities will focus on improving technical skills competency in medicine, public health, and service quality improvement for commune and district staff. Priority emphasis at the commune level is on learning to work with the community. District and commune staff will be involved as partners in the process of learning to work more effectively with the community, thereby strengthening an important management linkage between the two levels. WHO, UNICEF, and UNFPA will support the development of training modules and materials. Special training modules will be developed for service providers working in ethnic minority areas. NGOs will be involved in training commune-level health workers. The Project will collaborate with the AusAID-funded Primary Health Care Project in three provinces.

80. Training activities cut across all Project components. Sixteen types of training are envisaged (details are in Appendix 7). Recognizing the need for greater coordination between training activities within and outside the Project, each province will prepare an annual training plan. The annual plans will take into account the training needs of health providers in the province and available training resources in terms of trainers, facilities, and funds. Special attention will be paid to ensuring proper linkages between the different training programs, facilitating appropriate scheduling, and avoiding overlaps. The plans will also provide for monitoring and evaluation of the training programs.

2. Improving Health System (Component B)

81. This component will increase the efficiency, equity, and sustainability of health services by focusing on both the financing and management aspects. The component has three subcomponents:

a. Health Financing (B.1)

82. The financing intervention will support two initiatives, namely, (i) facilitating the implementation of the health cards for the poor, and (ii) piloting the development of a more sustainable rural health insurance.

83. The Government has decided to make access to health services more equitable by providing free health cards to the poor. The Project will assist the Government in implementing the scheme by strengthening the capacity of the Viet Nam Health Insurance Authority (VHIA) and developing systems for effectively monitoring costs and use of services under the scheme. The Government will provide free health cards to about 800,000 poor people[17] in the project area. The free health card scheme will increase the workload of VHIA by 30 percent. The health insurance management information system (HIMIS) will be improved to ensure close monitoring of membership, costs, and reimbursements. The Project will also support studies to establish a sustainable level of premiums for health cards, benefit package, appropriate targeting

[17] The poor people will be selected by the Ministry of Labor, Invalids and Social Affairs based on criteria in Notification No. 1751/LDTBXH dated 20 May 1997. The guidelines are based on household income. The poor households will be further ranked according to the household and other assets. The approximately bottom 30 percent of poor people will be eligible for free health cards.

mechanisms, and cost-effective provider payment options. This subcomponent will be implemented in collaboration with WHO, which will provide international consulting services and support capacity building for VHIA.

84. The Project will pilot voluntary rural health insurance initiatives in two communes each in Ninh Binh, Quang Binh, Khanh Hoa, and Long An provinces. The objective is to develop effective and sustainable models for community health insurance in rural areas. The Project will subsidize health insurance premiums on a declining level during the project period. It will also support marketing of the scheme to people in the communes during the first two years of pilot implementation. The pilots will be carefully documented and monitored to facilitate future replication. The Project will support the timely analysis of information related to enrollments, premiums paid, services used, and expenditure.

b. Management (B.2)

85. This subcomponent will strengthen management and planning capabilities at the provincial, district, and commune levels. A series of training workshops will be organized to upgrade planning and management skills at provincial and district levels with main emphasis on using financial resources efficiently and directing services to priority target groups. Provincial-level management training will focus on overall planning of services including allocation and efficient use of resources and providing technical support to the districts. District-level training will focus on supervision and monitoring.

86. Recognizing the need for information for planning and management, the Project will invest in improving the MIS. MOH is in the process of finalizing the software and detailed plans for improved MIS in the country. A similar MIS will be implemented in the project area. It will be fully computerized at national, provincial, and district levels and linked through the Internet. The Project will support the costs of computers, associated software, other MIS office equipment, planning and training workshops, and development of a homepage for each province. The Project will focus on improving the use of existing information. An attempt will be made to ensure that information is not only routinely collected but adequately analyzed and that the results of the analyses are shared at other levels within the organization.

87. The Project will support the MOH initiative in community-based monitoring (CBM) as a tool to involve the community in planning and improving commune-level services. Pilot CBM models have been implemented in the last few years with the support of UNICEF. MOH has developed guidelines to structure the involvement of communities in the activities of CHCs. The Project will replicate these models in collaboration with UNICEF, which will support development of prototype materials, training of key trainers, and monitoring and evaluation.

88. The Project will support policy studies to fill existing information gaps. Some areas that require more research include province-level information about burden of disease, malnutrition, abortion, HIV/AIDS, and health status of ethnic minorities. Areas for policy research will be prioritized by provinces, and studies undertaken with the concurrence of ADB.

c. Project Management (B.3)

89. The Project will finance necessary equipment, furniture, and consulting services for effective implementation, and monitoring and evaluation of project activities. A domestic consultant will be engaged to supervise surveys and studies for the midterm review and prepare

a background report. A household health survey will be undertaken in the last year of the project period to assess the impact of the Project.

3. Strengthening Prevention and Community Participation (Component C)

90. This component will strengthen the public health infrastructure—especially that related to food hygiene and BCC—and community participation in the project area.

a. Preventive Care (C.1)

91. The Project will strengthen the capacity of the provincial preventive centers to ensure the safety of food for public consumption. The Project will finance laboratories for preventive health care including food testing, training for epidemiologists working in provincial preventive centers, and development of policies and guidelines for routine testing of food items. This component directly responds to the urgent need for strict regulations for food safety.

b. Behavior Change Communication (C.2)

92. This subcomponent will (i) strengthen BCC planning and management capacity at the provincial and district levels, and (ii) support and expand BCC programs and activities. The objective is to achieve improved health knowledge among the rural population and to facilitate community participation in improving their own health status. BCC can improve access to and quality of care. It can enhance access by providing families with knowledge about the availability of services, and improve the quality of care by improving knowledge about when care may be required and emphasizing the importance of continuing care.

93. The Project will build the planning and management capacity of the newly established provincial health education centers. The Project will finance communication equipment and training at provincial and district levels to build the capacity to plan, implement, and monitor BCC activities and campaigns. Counseling and interpersonal communication skills of health care providers in districts and communes will also be improved by training and providing discussion aids, such as flip charts. The design of communication material will pay special attention to the language and cultural needs of ethnic minorities. Training for health providers will be part of the integrated care package and will be undertaken in collaboration with UNICEF and UNFPA. Health providers working in ethnic minority areas will be given specialized training, keeping in view the special health conditions and cultural perceptions of modern medicine.

94. Each province will make an annual BCC plan based on the priority health problems in the province. The Project will focus on these areas: (i) malnutrition, (ii) reproductive health, (iii) HIV/AIDS, (iv) prevention of accidents/injuries, and (v) awareness about the adverse effects of smoking. The Project will finance special BCC campaigns focusing on the priority health issues. The campaigns will be organized in partnership with the Viet Nam Youth Union, Viet Nam Women's Union, and NGOs. The BCC plans will take into account the special communication needs and low reach and acceptability of media in the poor and ethnic minority areas, and will use local and culturally acceptable media channels and methods.

c. Village Health Workers (C.3)

95. The Project will support the Government's policy of expanding the VHW network in remote and disadvantaged areas. VHWs play a key role in facilitating community involvement in these areas since they live in the same village and share the same culture and language. VHWs

act as an effective link between the health system and the community. The Project aims to have one trained VHW in each remote and ethnic minority village by the end of the project period. The Project will train or retrain (if already identified) VHWs in communication skills, effective use of IEC material, and basic PHC messages. Selected subcontractors will conduct the courses for VHWs. The VHW training program will be the same as that currently used by provinces incorporating the new activities of integrated care packages. VHWs will play a key role in implementing the BCC strategy.

C. Technical Justification

96. The Project takes an integrated approach focusing on both supply- and demand-side interventions. This approach ensures that improvements in the quality of services will proceed simultaneously with improvements in supervision and management of services, generation of demand for services, and improvements in affordability of services. Experience has shown that attention to only supply-side interventions does not lead to increased utilization of services or health improvements, especially by the poor who cannot afford services to begin with and do not often have sufficient knowledge about the availability of and need for using the services. The Project will focus on improving the quality of services by improving facilities and the skills of health care providers. At the same time, the Project will improve the affordability of services through free health cards for the poor and generate demand for services through BCC activities.

97. For both efficiency and equity reasons, the Project supports the strengthening of PHC infrastructure and public health services as opposed to secondary and tertiary levels of health care. PHC interventions have been found to be one of the most cost-effective strategies for improving health. Public subsidies for PHC facilities are much more equitably captured than are those for provincial and central-level hospitals. Hence, increasing the resources for PHC facilities will also have more than a proportionate positive effect on the poor.

98. Within PHC, the Project will focus on district hospitals with special emphasis on maternal and child health services, diagnostics, surgery, and emergency services. The health sector review has shown that increased use of district hospital services is highly cost-effective since the marginal returns outweigh the marginal costs. Moreover, district hospitals are a first level of referral system in rural areas largely inhabited by the poor. Therefore, increased use of district hospitals will lead to both increased efficiency and better health care for the poor.

99. The emphasis on maternal and child health, and diagnostic, surgical, and emergency services is justified on the ground that these services (i) cover most diseases, (ii) benefit the vulnerable population including women and children, (iii) help in reorienting the system for ongoing epidemiological transition, and (iv) have positive externalities or are public goods. The BCC component will revolve around malnutrition, reproductive health, HIV/AIDS, prevention of accidents/injuries, and awareness of the adverse effects of smoking, which represent the major existing and emerging challenges in the health sector in Viet Nam.

D. Cost Estimates

100. The total cost of the Project including physical and price contingencies, and taxes and duties is estimated at $98.7 million equivalent. Of this amount, $26.7 million equivalent, or 27 percent of total cost, is the foreign exchange cost, and $72.0 million equivalent, or 73 percent of total cost, is the local currency cost. A summary of the cost estimates is given in Table 1 and detailed estimates are in Appendix 8.

Table 1: Cost Estimates
($ million)

Component	Foreign Exchange	Local Currency	Total Cost
A. Improving Access and Quality of Care	16.0	45.4	61.4
B. Improving Health System	1.6	6.1	7.7
C. Strengthening Prevention and Community Participation	4.2	8.7	12.8
Total Base Cost	**21.8**	**60.2**	**82.0**
Taxes, Duties and Land	0	6.6	6.6
Contingencies			
Physical[a]	2.1	3.6	5.6
Price[b]	1.1	1.7	2.8
Service Charge	1.8	-	1.8
Total Cost[c]	**26.7**	**72.0**	**98.7**

[a] Physical contingencies: between 7 and 10 percent of the base cost financed by ADB

[b] Price contingencies: 2.4 percent annually for foreign currency component and 8 percent for the local currency. It is also assumed that the exchange rate will change to reflect purchasing power parity.

[c] Some numbers do not exactly add up due to rounding.

Source: Staff estimates.

E. Financing Plan

101. The Project will be cofinanced with WHO, UNFPA, and UNICEF on a parallel basis. It is proposed that ADB provide a loan of $68.3 million equivalent from its Special Funds resources to finance 69.2 percent of the total project cost (Table 2). This covers $25.8 million of the foreign exchange cost (including interest on loan) and $42.5 million equivalent in the local currency cost, or 59 percent of the total local currency cost. ADB financing will be used to finance a portion of the costs relating to civil works, procurement of vehicles, medical and office equipment, consulting services, training, research, and benefit monitoring and evaluation, but excludes costs of land, salaries of regular project staff, rental of office space, and taxes and duties. The term of the proposed loan will be 32 years, including a grace period of 8 years, with an interest charge of 1.0 percent per annum during the grace period and 1.5 percent per annum thereafter.

Table 2: Financing Plan
($ million)

Source	Foreign Exchange	Local Currency	Total Cost	Percent
ADB	25.8	42.5	68.3	69.2
UNICEF	0.5	0.5	1.0	1.0
UNFPA	0.2	0.3	0.5	0.5
WHO	0.2	0.1	0.3	0.3
Government	0.0	28.6	28.6	29.0
Total	**26.7**	**72.0**	**98.7**	**100.0**

ADB = Asian Development Bank, UNFPA = United Nations Population Fund, UNICEF= United Nations Children's Fund, WHO = World Health Organization.
Source: Staff estimates.

102. WHO will support implementation of the health insurance component by providing international consulting services and capacity building for VHIA. UNFPA will support training and BCC activities in three project provinces. UNICEF will support the implementation of CBM activities and BCC activities. Support from UNFPA, UNICEF, and WHO will be on a grant basis.

103. Financing for the local currency cost is considered justified under ADB's local currency financing policy.[18] Viet Nam needs a large investment program to rehabilitate and upgrade dilapidated physical and social infrastructure. The need to generate domestic resources to finance investments for sustaining economic growth is well recognized. However, it will take some time before the country can develop the necessary resource base to adequately finance the required level of investment without external finance. Under current circumstances, a large investment-savings gap will continue, hindering in particular programs that are aimed poverty reduction and human development with a large local currency content. Consistent with ADB policy, a higher percentage of local cost financing for this poverty reduction project is justified.

F. Implementation Arrangements

1. Project Management Structure

104. A central project management unit (CPMU) with the assistance of provincial project management units (PPMUs) in the 13 project provinces will be responsible for day-to-day implementation of the Project. The organizational structure of project management is shown in Appendix 9. The province will be the principal unit in project implementation, while the CPMU will provide technical, coordination, and logistics support. The CPMU will work under the overall guidance of a Project Steering Committee headed by the minister of health, or the vice-minister authorized by the minister. The CPMU will be headed by a project director. It will have at least four other full-time staff seconded from MOH and other contractual staff as needed to provide particular technical expertise. Four technical groups dealing with (i) quality of services, (ii) health insurance, (iii) health management and preventive health services, and (iv) BCC and community participation will support the CPMU and prepare annual action plans for submission to the project director.

105. The PPMU will work under the overall guidance of the vice-chairperson of the provincial People's Committee and will be headed by the director of provincial health services. The PPMU

[18] R1-95: *A Review of Lending Foreign Exchange for Local Currency Expenditure on Projects,* 3 January.

will have at least two full-time staff seconded from the provincial health services and other contractual staff as needed.

2. Implementation Schedule

106. The Project will be implemented over five years beginning in 2001 and ending in 2006. The implementation schedule is in Appendix 10.

3. Procurement of Goods and Services

107. All ADB-financed procurement under the Project will be in accordance with ADB's *Guidelines for Procurement.* The CPMU will have overall responsibility for carrying out procurement. In cases where procurement is done by PPMUs, the CPMU will ensure that the procedure follows the ADB guidelines.

a. Civil Works

108. Under the Project, most civil works will consist of the construction of structures for DHCs, ICPs, regional hospitals, preventive health centers, and health education units. None of the civil works will exceed $500,000. To allow for adequate supervision of construction, and due to the geographically dispersed locations of these structures, packages for all health units will need to be limited to less than 20 each. Due to the small and scattered nature of the facilities to be constructed, it is unlikely that the civil works will attract foreign bidders. Hence, it is proposed that local competitive bidding procedures acceptable to ADB be employed for these structures. To rationalize design and construction specifications, detailed survey and design activities will be required prior to tendering to assure that the facilities are appropriate for the population being served and the level of service to be provided.

b. Equipment and Materials

109. Medical equipment and supply packages for DHCs, ICPs, regional hospitals, CHCs, preventive health centers, and health education units will be procured under international competitive bidding if the package exceeds $500,000. Packages for equipment costing less than $500,000 will be procured using international shopping, and those costing less than $100,000, through direct purchase. The CPMU and PPMUs will procure office equipment and vehicles under international shopping or direct purchase. Office furniture, motorcycles, and bicycles will be purchased using local competitive bidding procedures or direct purchase. To achieve economy and efficiency, goods of similar nature will be grouped into packages under one or more tenders. Contracts may be awarded on a package basis, or on a least-cost combination of packages basis.

c. Consulting Services

110. One international (8 person-months) and 98 domestic consultants (522 person-months) will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. The consultants will (i) prepare and adapt integrated care guidelines and quality of care guidelines (1 international and 2 domestic); (ii) prepare training modules for district and commune service providers (12 domestic, including 3 for ethnic minority areas); (iii) undertake feasibility studies for the rural health insurance pilots, design health insurance cards, develop the health insurance management information system, and develop training programs for health insurance officials

(10 domestic); (iv) develop training modules and materials for management training for provincial and district officials (10 domestic); (v) prepare and adapt guidelines for BCC planning and implementation and develop training modules and materials for training BCC officials (3 domestic); and (vi) support VHWs (5 domestic). In addition, domestic consultants will be recruited for (i) survey and design of health facilities (31 domestic); (ii) training health staff in using MIS (4 domestic); (iii) undertaking the household survey and analyzing data to evaluate the impact of the Project (15 domestic); and (iv) preparing guidelines for bidding and procurement of equipment (6 domestic). This level of consulting services is the minimum required to effectively carry out the Project. Consulting services requirements and brief terms of reference are outlined in Appendix 11.

4. Advance Action

111. MOH will take advance action to expedite project implementation. In particular, MOH will (i) issue a ministerial decree establishing the CPMU and PPMUs; (ii) shortlist firms to carry out engineering design and construction supervision; (iii) shortlist individual consultants for technical assignments in the project; and (iv) develop the roles, structure, and functions of CPMU and PPMUs.

5. Disbursement Procedures

112. Expenditures for procurement contracts and other payments larger than $50,000 equivalent will utilize direct payment and commitment procedures for withdrawing loan funds. Expenditures valued at $50,000 or less will utilize statement-of-expenditure procedures. Disbursement will follow the detailed guidelines established in interministerial circular number 81. An imprest account will be established within three months of loan effectiveness. It will be liquidated and replenished according to the procedures in ADB's *Loan Disbursement Handbook.* ADB will reimburse the imprest account following the procedure in the *Loan Disbursement Handbook.* Second-generation imprest accounts will be opened in all provinces. They will be reimbursed by the central account on submission of full supporting documents for the expenditure.

6. Accounts and Auditing

113. The Government, acting through MOH, will maintain records and accounts adequate to identify goods and services financed from the loan proceeds. The CPMU will (i) maintain separate accounts for the Project; (ii) ensure accounts and financial statements are audited annually, in accordance with sound accounting principles, by auditors acceptable to ADB; and (iii) submit to ADB, not later than 12 months after the close of each fiscal year, certified copies of audited accounts and financial statements, and the auditor's report on them.

7. Reporting

114. The CPMU will prepare project progress reports every six months and submit them to ADB within six weeks after the end of the semi-annual period. The reports will be in a format acceptable to ADB, and will include (i) progress made against established targets, including aspects of quality; (ii) delays and problems encountered, and actions taken to resolve issues; (iii) compliance with loan covenants; (iv) proposed program of activities to be undertaken during the next six months; (v) expected progress during the succeeding period; and (vi) maintenance and repair activities undertaken on the health facilities. Within three months of physical

completion of the Project, the Government will prepare and submit to ADB a project completion report on the execution of the Project, including costs and compliance with the loan covenants.

8. Midterm Review of the Project

115. While the Project will be continuously reviewed, the Government and ADB will also jointly undertake a midterm review during the third year of implementation. The midterm review will (i) review the scope, design, implementation arrangements, and other relevant issues in light of the Government's development strategies and the policy framework and strategic social concerns of ADB; (ii) examine progress toward achieving the measurable objectives of the Project; (iii) identify changes since the time of appraisal relating to sector issues, resource management and allocation, etc., and reassess their impact with regard to future project implementation and sustainability; (iv) assess implementation performance against appropriate projections; (v) review and establish compliance with various loan covenants; (vi) identify problems and constraints; and (vii) formulate appropriate recommendations for corrective action.

9. Benefit Monitoring and Evaluation System

116. In accordance with ADB's *Handbook on Benefit Monitoring and Evaluation*, the Project has selected a short list of verifiable indicators for monitoring and evaluation (Appendix 12). Baseline values for these indicators will be estimated using data from the national health survey being undertaken in 2000. The final values of the indicators will be estimated from data from a household survey planned under the Project in 2005.

117. Analysis of the verifiable indicators will be disaggregated by income, sex, and ethnicity. The analysis will include non-Project areas to allow comparison. The Project will monitor the environmental impact of the interventions by monitoring waste disposal and by checking the water quality of randomly selected wells near the regional hospitals constructed under the Project. An independent firm under the supervision of MOH will carry out the final evaluation of the Project. The Executing Agency will collect data but analysis and reporting will be the responsibility of the independent firm. The evaluation will be financed with proceeds from the loan. For benefit monitoring, the CPMU will have overall responsibility for data collection, analysis, and reporting to all interested parties, including ADB. Delivery of services to recipients, use of services by recipients, and effects of services will be monitored through regular reports and routine data collected through the health MIS. Focus group discussion with beneficiaries will be carried out at midterm and at the end of the Project.

G. The Executing Agency

118. The MOH will be the Executing Agency. MOH has gained useful experience in project implementation from the existing National Health Support Project supported by the World Bank. Nevertheless, MOH's implementation capacity needs to be strengthened, especially at the provincial level. ADB is separately providing capacity building TA to improve the management and financing of health services. The Project also includes interventions to strengthen management capacity at central and provincial levels.

H. Environmental and Social Measures

1. Environment

119. The Project will have no significant adverse environmental effect. Most civil works entail rehabilitation of existing structures. The location of all new facilities and the design and construction of all project facilities will cause minimal disturbance to the environment and natural resources. Optimal use of local materials, natural light, and natural ventilation will be considered. Handling of refuse and measures for disposing of hazardous medical waste, e.g., syringes and needles, will be specifically addressed in the design and operation of the health centers.

2. Social Analysis

120. Forty nine percent of the population in the project area is poor and 10 percent belong to ethnic minorities. The health status of these groups is significantly poorer than that of the better-off, urban, and ethnic majority (Kinh) communities, and is heavily influenced by communicable and infectious diseases, and morbidity and mortality associated with childbearing. During the project preparation phase, communities were consulted to identify their health priorities and the barriers that they face in seeking access to health services. Feedback from them was factored into the project design to ensure that the poor and disadvantaged will adequately benefit from the Project and actively participate in its implementation. The Project expects no negative social impact such as that caused by land acquisition and resettlement. New structures will be built on government land with existing health facilities.

a. Poverty

121. Poverty incidence[19] within the project area is 49 percent compared with 37 percent in the country. Poverty and health status are closely associated (Appendix 13 gives a detailed discussion). The occurrence of illness—leading to loss of labor resources and significant costs for curative health care and associated expenditure—is reportedly one of the prominent causes of poverty. While the poor suffer from the heaviest disease burden, they are also less likely to seek health care. They also use poorer quality service providers than the nonpoor. The main reasons for the poor's lower utilization of health care services are (i) poor access to quality services, (ii) unaffordability of such services, (iii) lack of knowledge about the need for and availability of services, (iv) less than encouraging attitude of service providers, and (v) inadequate insurance coverage.

122. The project design specifically addresses the constraints often faced by the poor in seeking health care services. First, the Project will improve access to quality services in poor areas. Second, it will support free health card schemes for the poor, thereby improving the affordability of services. Third, under the BCC component, the Project will generate a demand for health services, especially among the poor. Fourth, training of health care providers will focus not only on technical areas but also on the interpersonal communication skills to reduce the social distance between them and their clients. Fifth, the Project will assist the Government in developing models for comprehensive health insurance, which would be helpful in providing insurance coverage to all including the poor. Finally, the Project encourages participation of the poor in management of health services through CBM and VHWs.

[19] The poverty line in Viet Nam is defined as the minimum per capita expenditure required in consuming 2,100 calories and corresponding nonfood items. The poverty line was estimated to be $128 per capita per year in 1998.

b. Gender

123. In all subcomponents, the Project will target women and girls, who will comprise the majority of the project beneficiaries. Rural women, especially those of ethnic minority groups, are most affected by poverty, as they bear a disproportionate burden of coping with daily hardships due to their multiple roles in both productive and reproductive areas. They engage in heavy daily tasks for long hours, often at the cost of their own health. As women perceive the opportunity cost of using health services to be high, it is essential to bring health services closer to them through improved service quality and, where possible, reduced costs, as well as to attract them closer to services by generating demand. The Project will address poor women's needs through all subcomponents, especially:

(i) improved maternal and child care services based on the integrated care approach and extended by better trained health staff; and

(ii) special counseling services for women as part of the BCC subcomponent, which will enable women to deal with sensitive health issues including reproductive health and domestic violence.

124. Furthermore, the community participation efforts of the Project will emphasize the role of women in planning and using community health services, in collaboration with the Viet Nam Women's Union. Children will also benefit through the improved health services and improved health status and knowledge of mothers. The Viet Nam Youth Union will be engaged to facilitate commune activities to strengthen the preventive programs.

c. Ethnic Minorities

125. Some project provinces, especially those in the northern highlands and central region, have a significant number of ethnic minorities (e.g., 69 percent in Hoa Binh). The ethnic minorities are the most challenging of all target groups, due to their general poverty, difficulties in reaching them, lack of health awareness combined with high illiteracy rate, and, in many cases, health services that do not address their culturally sensitive needs. Therefore, the Ethnic Minorities Development Plan (EMDP) was prepared in accordance with ADB policy and will be implemented as part of the Project (Appendix 14).

126. Under the EMDP, the health needs and concerns of the ethnic minorities were mainstreamed through training for district and commune health staff and VHWs and CBM. In addition, special activities are planned for implementation: training traditional birth attendants, preparing of an ethnic minorities health handbook, establishing commune-level herbal gardens, and translating IEC materials into ethnic languages, where possible. Much of the ethnic minority population will also benefit from the health cards for the poor, given the high incidence of poverty among them. To monitor the project implementation, communities will be heavily involved and external assistance will be sought through NGOs, where necessary.

d. Community Participation

127. Community participation is a key strategy of the Project, given that the effectiveness of health programs, especially maternal and child health, reproductive health, and preventive care, depends on the capacity of communities to address their specific needs and absorb improved health services. Through the CBM scheme developed by UNICEF, communities will be involved

in planning, implementing, and monitoring commune-level health services. Under CBM, community representatives will consolidate community perceptions of the quality of health services, monitor behavior changes among community members, and provide feedback to commune health staff and VHWs. The expansion of the VHW network will also encourage community participation through their monthly household visit. The CBM and VHW network are especially important among ethnic minority communities, many of whom are difficult to reach. Wherever possible, the Project will work closely with NGOs and mass organizations (i.e., Women's Union and Youth Union) in training commune-level health workers and VHWs, monitoring the implementation of the EMDP, and CBM.

V. PROJECT JUSTIFICATION

A. Project Benefits

128. There is a strong justification for investments proposed under the Project, both on equity and efficiency grounds (Appendix 15). In particular, the Project is justified on the following basis:

(i) The Project supports the government in taking a proactive stance on issues that exhibit significant market failure or strongly positive externalities or both. There are compelling reasons for an active role for the Government on these issues, since left to normal market forces, investment in these interventions will be less than optimal. The project intervention related to food safety and prevention of communicable diseases will have strong positive externalities, because the social benefits of the interventions far outweigh the private benefits. Therefore, the private sector does not have sufficient incentive to invest in these interventions. Similarly, the Project focuses on issues known to have significant market failure, such as health insurance, catastrophic illnesses and information asymmetry between the health care providers and patients. In the absence of active government interventions, the market outcomes on these issues will be non-optimal.

(ii) The Project will improve access to quality health services for 12.7 million people, thereby improving their health status. Improving the health status will lead to substantial economic gains in terms of improved productivity, better returns on investment in children, and savings in the direct and opportunity cost of treating prevented illnesses. For example, in 1997/98 the economic cost of people's illness in terms of foregone earnings in Viet Nam was estimated to be about 8.7 percent of GDP.[20] In addition, the total expenditure on health care amounts to about $400 million every year. Even a 10 percent reduction in sickness in the project provinces will translate into an additional annual productivity gain of $50 million. It will also mean a saving of $40 million in the direct cost of health care, and much more if the indirect costs are included.

(iii) The proposed interventions are among the most cost-effective ones available, such as health education, reproductive health care, and immunization. The Project will yield improvement in health status at a relatively low cost, estimated at between $12 and $24 per DALY saved. Interventions costing below $100 per DALY saved are considered to have high cost-effectiveness.

[20] Ministry of Health. 1999. Viet Nam Health Sector Review.

(iv) The current health system is already in place in the form of buildings, staff, and land, but is seriously underutilized. A modest investment for improving quality and generating demand is expected to substantially increase utilization, and thereby improve efficiency. Econometric analysis in the Health Sector Review shows that district hospitals have short- and long-run economies of scale. The results imply that there will be gains from expanding the output at district hospitals.

(v) Finally, the Project will provide long-term benefits by strengthening the health system in terms of (a) developing and mainstreaming integrated care guidelines, (b) improving management and supervision of health services, (c) more rational and equitable health financing, (d) improving policies and capacity for food safety, and (e) better capacity for planning and organizing BCC activities.

B. Poverty Reduction

129. The Project was designed as a core poverty project and will meet the health needs of the remote rural poor and ethnic minorities (detailed discussion in Appendix 13). While the Project aims to provide curative and preventive health services to all segments of the population in the project provinces, the majority of the beneficiaries will be the poor. Interventions supported by the Project will be targeted toward the poor as a result of the specific design features and through self-selection. The Project has also been designed to benefit women. Women will constitute the majority of project beneficiaries, and there are specific interventions aimed at improving their health.

130. **Self Targeting.** Poverty incidence in the project area is 49 percent compared with the countrywide incidence of 37 percent. Because of this, the Project will yield more than proportionate benefits for the poor. In addition, almost all the project interventions target the poor. For example, the Project focuses on maternal and child health. Since the poor in Viet Nam have higher fertility rates than the non-poor the majority of pregnant women, mothers of young children (aged one and under) and children (aged five and under) are poor. Interventions aimed at mothers and children will provide proportionately greater benefits to the poor. More than 70 percent of malnourished children are poor. Therefore, interventions aimed at reducing malnutrition will have poor beneficiaries as the majority. Another example is smoking and tobacco use. The BCC campaign to reduce tobacco use will have the poor as major beneficiaries.

131. **Design Features.** The Project has special features to specifically target the poor and will reduce poverty in several ways. First, it will focus on improving access to quality health services in remote areas, which will reduce the travel and opportunity costs of seeking health services. Second, it will support the government scheme to provide free health cards to 800,000 poor persons, in effect reducing the financial barriers to their use of services. Third, the Project will support interventions to cure and prevent catastrophic and prolonged illnesses, which make people vulnerable to poverty. Some of these health conditions are accidents and injuries, HIV/AIDS, TB and cancers. They not only have devastating and irreversible adverse impacts on the poor, but also drag the nonpoor into deep poverty. Finally, the Project will assist the poor by helping to create a financially sustainable, rural-based social health insurance program.

C. Sustainability

132. Since the Project entails a large investment to expand the availability and improve the quality of health service provision in 13 provinces, care has been taken to ensure that the investments are sustained during and after the project period. Most of the additional health facilities will be provided at the district level by rehabilitating the existing DHCs or by enhancing the supply of diagnostic or treatment-related equipment. Some project design features that will ensure sustainability include the following: (i) wherever possible, existing facilities will be renovated rather than new facilities constructed; (ii) civil works, including renovation, will be designed to minimize maintenance costs; (iii) only technologically appropriate and locally serviceable equipment will be procured; (iv) maintenance programs and schedules for facilities and equipment will be developed and carefully monitored; and (v) the Project will involve communities in implementation, which will ensure community ownership, supervision, and optimal use of the facilities.

133. An analysis of likely scenarios relating to investment costs and estimated recurrent costs was conducted. The results show that under all realistic scenarios, the project provinces will be able to obtain the necessary resources to finance the recurrent costs (Appendix 15). Financing for the recurrent costs associated with the project investments will be met through the following sources:

(i) User charges. Historical trends show that hospital revenue from user charges has increased at a compounded rate of 14 percent from 1991 to 1994 and at a rate of 40 percent between 1994 and 1997. Presently, user charges account for more than a third of total hospital expenditure. It is estimated that about 30 percent of the incremental recurrent costs related to project investments will be met through this source.

(ii) Health insurance. Hospital revenues from health insurance reimbursements have increased by an annual rate of more than 30 percent during 1994 and 1998. Even with a conservative projection of future growth in these revenues, health insurance is estimated to account for more than 20 percent of hospital revenues in the next 10 years.

(iii) Free health cards. The new scheme of free health cards for the poor will yield additional funds for the health system. Under the scheme, the Government will provide a subsidy of D30,000 for each health cardholder. This will contribute an additional $1.5 million for financing recurrent costs every year in the 13 project provinces.

(iv) Government budget. It was assumed that government budgets would continue to increase by an annual rate of 3 percent in real terms over the next 10 years. In view of the fact that provincial health budgets had increased by more than 12 percent in real terms during the period 1991-1997, this assumption is on the conservative side.

D. Risks

134. The project interventions involve very little technical risk. The technologies and techniques for providing effective PHC are well-understood and well-tested. Viet Nam's experience in the sector is long and highly successful, demonstrating both implementation

ability and sustained commitment. The major risk to the Project arises from the macroeconomic conditions. Sustainability of project investments is contingent on the provision of Government budgets for the health sector. Although the Government has been able to increase health sector budgets in the past, its ability to do so in the future critically depends on the macroeconomic and fiscal situation. Any future economic downturn will be a potential risk for the Project.

135. The other project-related risk is the possible implementation delays caused by (i) inefficient project management structure, disbursement procedures, and fund flow system; and (ii) inefficient procurement procedures for civil works, drugs, medical equipment and supplies, and consulting services. The risk of delays in implementation has been minimized through (i) training of CPMU and PPMU officials in procurement and disbursement procedures and project management; (ii) a decentralized project management structure that shifts the responsibility and authority from the central level to the provinces where essential activities such as training and supervision will be implemented; and (iii) procurement units of sufficient size at the central and regional levels, staffed by qualified consultants using streamlined procurement procedures.

VI. ASSURANCES

136. The Government has given the following assurances, in addition to the standard assurances, which have been incorporated in the legal documents:

(i) MOH will ensure that, within six months of loan signing, the project management structures will have been fully staffed in accordance with agreements reached at appraisal.

(ii) MOH will make data from the national health survey available to the CPMU for analysis as soon as possible after completion of the survey. Baseline and target values of the project indicators will be established within one year of loan effectiveness.

(iii) Within three years of loan effectiveness, MOH will establish revolving funds for drugs in all rural communes in the 13 provinces, where there is no licensed drug store.

(iv) The provinces will ensure that the provincial health sector budget will be increased at least by 3 percent in real terms during the project period and that they allocate sufficient O&M budget funds for the proposed facilities and equipment.

(v) Within two years from loan effectiveness, MOH will complete its ongoing review of the existing drug policy and submit the draft Drug Law to the National Assembly for approval.

(vi) Within six months from loan effectiveness, MOH will submit to ADB for review draft national regulations for regional hospitals and after taking into account the comments of ADB, adopt the regulations within one year from loan effectiveness.

(vii) Within two years of loan effectiveness, the Government will develop policy guidelines to reimburse all intercommune polyclinics for services to the health cardholders.

(viii) After two years of loan effectiveness, the Government will review and revise, if appropriate and necessary, the scheme of health cards for the poor. The review will assess the operational issues of the scheme including the targeting, effectiveness, and appropriateness of premium levels.

(ix) Within two years from loan effectiveness, MOH will review the existing mechanisms for cost-recovery exemptions for the poor, and after taking into account ADB's views, take the necessary legal and administrative steps to ensure that such mechanisms are implemented more effectively.

(x) Within three years of loan effectiveness, the Government will submit a draft health care policy to ADB for review. The draft policy will address, among other things, improving access to and the cost of public health services to the rural poor. Within four years of the effective date, the Government will have finalized the policy.

(xi) Within one year from loan effectiveness, the Government will submit a draft ordinance (the ordinance) specifying standards and procedures for ensuring food safety to the National Assembly for approval.

(xii) Within one year after the approval of the ordinance, MOH will develop implementation guidelines and an action plan for improving the capacity to enforce laws on food safety.

VII. RECOMMENDATION

137. I am satisfied that the proposed loan would comply with the Articles of Agreement of ADB and recommend that the Board approve the loan in various currencies equivalent to Special Drawing Rights 52,354,000 to the Socialist Republic of Viet Nam for the Rural Health Project, with a term of 32 years, including a grace period of 8 years, and with an interest charge at the rate of 1 percent per annum during the grace period and 1.5 percent per annum thereafter, and such other terms and conditions as are substantially in accordance with those set forth in the draft Loan Agreement presented to the Board.

TADAO CHINO
President

6 October 2000

APPENDIXES

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SUPPLEMENTARY APPENDIX
(available on request)

A	Ethnic Minority Development Plan		

PROJECT FRAMEWORK

Design Summary	Project Targets (Verifiable Indicators)	Monitoring Mechanisms	Assumptions
1. Sector/Area Goal Improve health status of rural people in 13 project provinces, especially the poor, disadvantaged, women, and children	For the target group ■ Decrease poor-nonpoor gap in infant mortality and neonatal mortality by 25 percent ■ Reduce poor-nonpoor gap in the burden of disease (BOD) by 25 percent	■ Ministry of Health (MOH) service statistics ■ National health survey 2000 and national household survey 2005	■ Primary health care (PHC), especially in poor rural areas, continues to be a Government priority. ■ Significant amount of current BOD is preventable.
2. Objective/Purpose			
(i) Improving quality of health services in 13 project provinces, especially those used by the poor, disadvantaged, ethnic minorities, women, and children	■ Increase coverage of high-risk deliveries in district hospitals by 60 percent ■ Increase rate of antenatal care for poor women by 40 percent ■ Increase rate of identifying risk pregnancies by 75 percent	■ MOH service statistics ■ National health survey 2000 and national household survey 2005	■ Focus on maternal and child health, emergency, diagnostic, and surgical services will address major public health problems in rural areas. ■ Integrated services will provide more effective health care.
(ii) Developing equitable, efficient, and sustainable health financing system	■ Equity: Reduce the gap between the utilization of services by the poor and nonpoor by 25 percent in pilot areas ■ Efficiency: Increase the proportion of financial resources targeted to primary health care programs by 10 percent ■ Sustainability: Increase government spending for health care by 35 percent	■ Health sector review ■ National health survey 2000 and national household survey 2005	■ Health insurance can provide incentive to use appropriate health service. ■ Targeting of public health resources will ensure more services for the priority population groups, especially poor women and children.
(iii) Improving management capacity for implementing PHC programs at provincial and district levels	■ Integrated package of services is available in 80 percent of district and commune health centers. ■ Effective referral system links communities, commune health centers (CHCs) and district health centers (DHCs)	■ Project reporting statistics ■ Special studies	■ Effective management and supervision will lead to availability of quality services in an integrated fashion.
(iv) Strengthening information, education and communication (IEC) support to services, especially focused on safe motherhood, child survival, and nutrition through community participation	■ All provinces routinely prepare IEC plans to address the major health needs. ■ Increase in basic messages of “Facts for Life” by 30 percent ■ Increase in awareness of the basic messages related to tobacco use and human immunodeficiency virus/acquired immunodeficiency syndrome by 30 percent	■ Project reporting statistics ■ National health survey 2000 and national household survey 2005	■ Poor planning capacity at the province level is the major constraint on implementing effective IEC activities. ■ Increased community knowledge of reasons for ill health will lead to more healthy behavior.

Design Summary	Project Targets (Verifiable Indicators)	Monitoring Mechanisms	Assumptions
3. Outputs			
■ **Component A: Improving Access and Quality of Care**			
• Services	■ Percent of districts using and basing supervision on integrated care package increased to 80 percent.	■ MOH service statistics	■ Health technology used at district and commune levels will address major health conditions.
• Facilities and equipment	■ Percent of district centers meeting MOH laboratory and X-ray service standards increased to 90 percent. ■ Percent of district centers meeting MOH emergency room standards increased by 90 percent. ■ Percent of district centers meeting MOH surgical practice standards increased by 90 percent. ■ Percent of district centers meeting MOH obstetrical and gynecological service standards increased by 90 percent.	■ Project reporting statistics	■ Utilization of services at community level will be increased when standards of facility and equipment are met.
• Essential Drugs	■ A financially sustainable revolving drug fund is working in 90 percent of the commune health centers.	■ MOH service statistics	■ The Government will provide the essential drugs that are needed to support project service activities.
• Training	■ At least three health workers in each commune will be trained to use integrated care package. ■ At least 20 health workers at each district center will be trained (12 to improve clinical skills and 8 to improve management and leadership skills).	■ Project reporting statistics	■ Current knowledge and skills of health workers can be upgraded to meet new competency levels.
■ **Component B: Improvement in the Health System**			
• Equitable and sustainable health financing	In the areas with pilot health insurance: ■ The percent of household income of the poor spent for health care is reduced by 40 percent (equity). ■ The percent of funding for district and commune health services coming from health insurance is increased by 50 percent (sustainability).	■ MOH/Viet Nam Health Insurance Authority (VHIA) service statistics ■ National health surveys 2000 and national household survey 2005	■ Risk pooling can be achieved at commune level. ■ At least 80 percent of a commune's population participate in health insurance pilot.

Design Summary	Project Targets (Verifiable Indicators)	Monitoring Mechanisms	Assumptions
	In areas with only the health insurance cards for the poor, ■ The percent of out-of-pocket household spending for drugs is reduced by 50 percent.		
• Management and supervision of health services	■ All provinces are able to account for 90 percent of the total health spending on health care and show its use by type of health expenditure and program area. ■ Ninety percent of districts have supervisory plans by program, which have specific support actions for monitoring and improving quality of care. ■ All DHCs are linked through the internet and an effective health management information system is in place.	■ Project reporting statistics	■ Health system efficiency will be improved through better targeting and supervision of resources.
• Community participation (community-based monitoring [CBM])	■ Eighty percent of communes where CBM is introduced have two meetings per year with the community to review CHC activities.	■ Project reporting statistics	■ The community will be interested in participating in activities of CHC.
■ **Component C: Strengthening Prevention and Community Participation**			
• Preventive activities at provincial level	■ The episodes of illness from food-borne diseases requiring hospitalization or care are reduced by 20 percent.	■ MOH service statistics	■ Improved quality of food safety tests will reduce disease outbreaks.
• Behavior change communication (BCC)	■ Eighty percent of the BCC materials used by provinces have a local content or adapted component. ■ Effective monitoring and evaluation system for BCC is in place.	■ Project reporting statistics	■ Current barriers to health-seeking behavior are reduced.
• Village health workers (VHWs)	■ Eighty percent of VHWs participate in at least one retraining course using revised IEC materials.	■ Project reporting statistics	■ Most areas will increase the use of VHWs to promote public health activities.

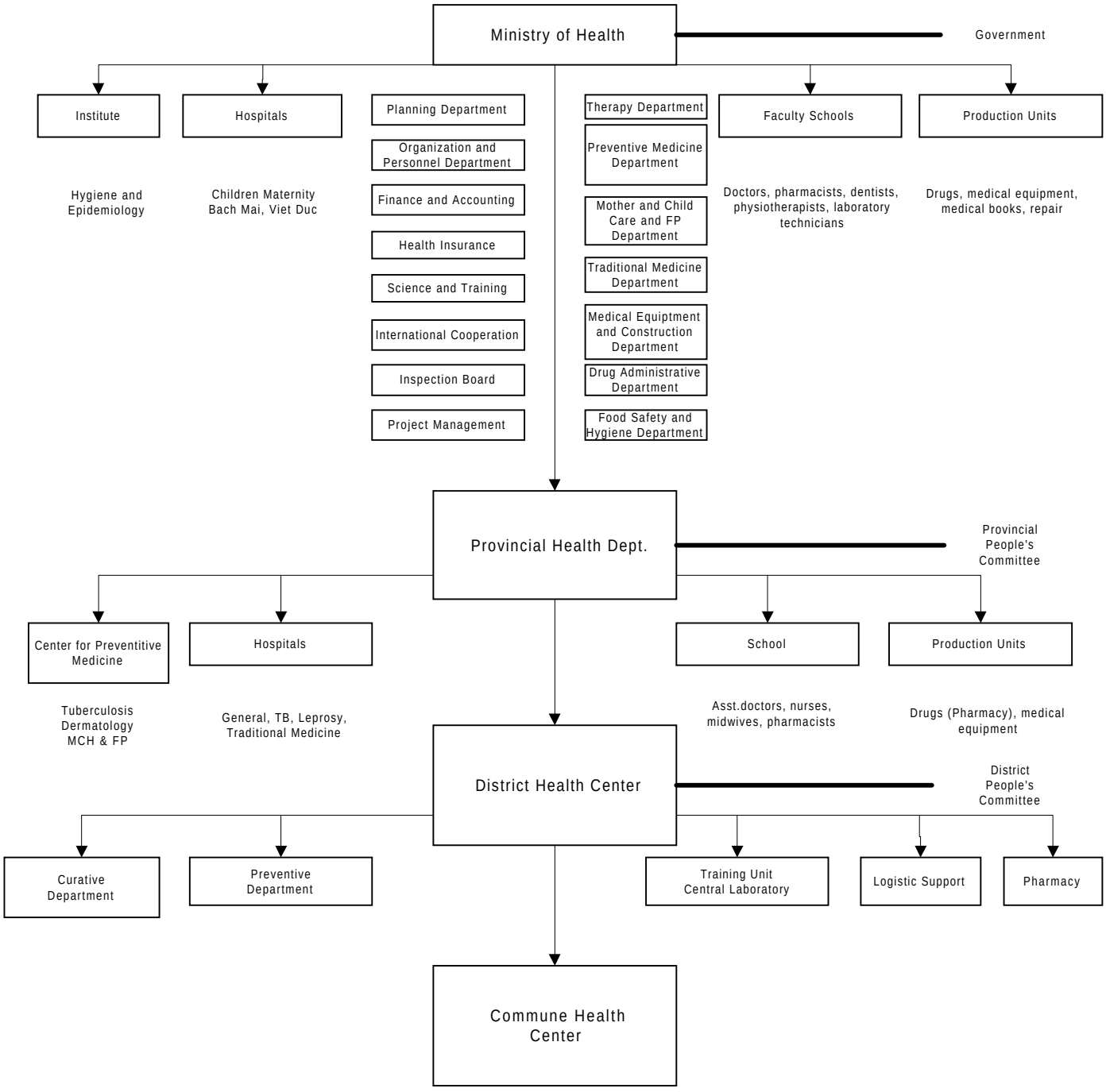
4. Input

Components:	Cost ($ million)			
	Govt.	ADB	UNFPA/UNICEF/WHO	Total
A. Improving Access to Quality of Care	19.0	42.0	0.4	61.4
B. Improving Health System	1.1	6.0	0.6	7.7
C. Strengthening Prevention and Community Participation	1.9	10.1	0.8	12.8

ADB = Asian Development Bank; UNFPA = United Nations Population Fund; UNICEF = United Nations Children's Fund; WHO = World Health Organization.

Appendix 2

ORGANIZATION STRUCTURE OF HEALTH SYSTEM IN VIET NAM



EXTERNAL ASSISTANCE TO THE HEALTH SECTOR

Table A3.1: External Assistance to the Health Sector
(through the end of 1998)

Aid/Agency	Projects (no.)	Total Commitment		Amount Disbursed	
		$ million	% of total	$ million	% of total
World Bank	1	127.30	24.80	14.40	9.34
European Community	9	90.40	17.60	0.70	0.45
Japan	3	82.60	16.08	19.60	12.72
ADB	2	43.90	8.55	11.00	7.14
UNICEF	8	42.20	8.22	18.00	11.68
Sweden	9	31.20	6.08	20.60	13.37
Australia	8	26.00	5.06	10.00	6.49
UNFPA	4	12.00	2.34	11.90	7.72
WFP	1	10.59	2.06	8.45	5.48
WHO	25	9.38	1.83	10.28	6.67
France	4	8.50	1.66	5.40	3.50
Netherlands	8	7.80	1.52	8.70	5.64
Italy	2	6.70	1.30	2.00	1.30
Belgium	7	5.90	1.15	4.30	2.79
Spain	1	5.00	0.97	5.00	3.24
Thailand	1	2.10	0.41	2.10	1.36
Denmark	1	0.80	0.16	0.80	0.52
USA	1	0.41	0.08	0.29	0.19
CIDSE	1	0.30	0.06	0.30	0.20
United Kingdom	1	0.29	0.06	0.22	0.14
Korea, Rep. of	1	0.03	0.01	0.09	0.06
Total	**96**	**513.4**	**100.00**	**154.13**	**100.00**

Source: Project Coordination Department, 1999.
ADB = Asian Development Bank; CIDSE; Cooperation Internationale pour le Developpement et la Solidarite, UNFPA = United Nations Population Fund, UNICEF = United Nations Children's Fund, WHO = World Health Organization.

Table A3.2: External Funding for Health, by Component
(1990-1998)

Area		Amount Committed		Amount Disbursed	
		$ million	Percentage	$ million	Percentage
1.	Planning/Management/Policy	20.647	3.00	7.835	37.95
2.	Training System	29.734	4.31	15.113	50.83
3.	Health Facilities	132.714	19.25	84.490	63.66
4.	Health Programs	419.230	60.82	276.670	65.99
5.	Community Development (PHC)	87.014	12.62	26.996	31.02
6.	Finance	—	—	n.a.	n.a.

n.a. – not applicable; PHC = primary health care.
Source: Ministry of Health, 1999.

Table A3.3: External Funding for Health, by Project Province
(1990-1998)

Project Province		Committed ($ Million)	Average per Capita ($)	Population
1.	Ben Tre	2.277	1.63	1,393,900
2.	Binh Phuoc	3.610	6.58	548,800
3.	Can Tho	2.713	1.42	1,904,600
4.	Hoa Binh	4.830	6.27	770,400
5.	Khanh Hoa	2.246	2.26	993,500
6.	Long An	5.432	4.18	1,300,100
7.	Ninh Binh	3.422	3.78	905,900
8.	Phu Tho	4.829	3.76	1,283,500
9.	Quang Binh	3.586	4.45	806,400
10.	Quang Ngai	5.057	4.10	1,233,500
11.	Quang Ninh	4.529	4.83	938,400
12.	Tien Giang	1.598	0.93	1,726,100
13.	Vinh Phuc	0.997	0.92	1,084,600

Source: Ministry of Health, 1999.

1. Table 3 shows the external funding that went for provincial activities in the project provinces. The level of external funding for Binh Phuoc and Hoa Binh is double the average per capita rate for the project provinces. Support in both provinces includes a large malaria project. Excluding this project, the rate for Binh Phuoc is $3.90, and that for Hoa Binh is $3.36. With this adjustment, 8 of the 13 provinces over the period 1990-1998 had a per capita external funding of around $3-4. Clearly, Tien Giang and Vinh Phuc were at the lower end of external funding.

CRITERIA FOR SELECTING THE PROJECT AREA AND DETAILS ON THE PROVINCES

1. The objective of the Project is to improve the health status of the population in the poorest areas of the country and to provide experience on health development measures that may be applied throughout the country. The project provinces were selected on the bases of poor health conditions, weak health infrastructure, relatively high incidence of poverty, and absence of substantial external assistance.

Table A4: Selected Characteristics of Project Provinces

Project Province	Percent Urban[a]	GDP/ Capita 1997[a] (D'000)	Rural GDP/ Capita[b]	Health Budget/ Capita 1998[a] (D'000)	Communes Without Doctor 1998[a] %	Communes Without Midwife Ped-Obst 1998[a] %	% GDP Growth Minus % Pop Growth 1992/92[c]	District Hospital Beds/ 1000 Pop[a]	Ethnic Minorities (% Pop)[d]	Communes with Difficulties[e] (no.)
Northern Upland										
Hoa Binh	16.1	1,665	1,388	27.7	98	25	-0.6	.53	64.9	60
Phu Tho	11.6	2,205	1,928	22.5	94	59	1.5	.40	9.4	48
Vinh Phuc	9.6	1,998	1,785	22.2	89	18	1.5	.40	9.4	2
Quang Ninh	43.4	3,970	2,581	24.9	73	16	1.5	.79	10.7	32
Red River Delta										
Ninh Binh	11.5	1,773	1,552	22.1	87	25	1.9	.59	0.5	5
North Central										
Quang Binh	11.8	1,892	1,650	23.1	96	51	-2.6	.57	1.6	25
Central Coast										
Quang Ngai	10.1	1,937	1,721	21.9	87	5	10.7	.68	10.8	40
Khanh Hoa	37.9	4,094	2,785	24.8	75	5	2.7	.53	4.5	17
South East										
Binh Phuoc	14.7	2,279	1,943	25.7	91	0	9.3	.97	8.0	18
Mekong River Delta										
Long An	12.8	3,669	3,116	20.2	85	22	10.4	.72	0.6	-
Tien Giang	12.1	3,202	2,784	18.4	85	0	1.8	.13	0.6	-
Ben Tre	7.9	3,142	2,862	19.4	87	15	0.1	.33	0.6	-
Can Tho	19.9	3,452	2,769	22.1	6	0	2.3	.32	15.0	2
Country	**21.1**	**3,568**	**--**	**24.8**	**76**	**22**	**5.3**	**.54**	**12.7**	**249**

Conversion rate: $1 =- D14,000.
GDP = gross domestic product.
[a] Ministry of Health annual statistics, 1998.
[b] Computed using ratio of rural and urban consumption levels from the 1998 Living Standard Survey.
[c] National household survey, 1992/93.
[d] National population census, 1989.
[e] Decision 135/QD-TTg, July 1998 on 1715 Communes for Special Assistance.

2. To avoid duplication of resources, the first step in selecting the project provinces was to exclude provinces that were covered by other major projects. Thirty-nine provinces are already covered by other major projects, namely, the Population and Family Health Project, supported by the Asian Development Bank and World Bank, the World Bank-supported National Health Support Project, and the European Union-supported Health Project. These projects are already providing support similar to that envisaged under the present Project.

3. Of the remaining provinces, the neediest and the poorest were selected. Table A4 shows that these provinces have greater needs than the country as a whole. All the project provinces have a proportionately larger rural population than does the country as a whole. Quang Ninh and Khanh Hoa show a high urban percentage because of the larger than average provincial capitals in the two provinces. The average GDP/capita is lower than the national average. Again the large city populations in Quang Ninh and Khanh Hoa provinces distort the average for these two areas. However, the estimated income levels in rural areas of the two provinces are significantly lower than the national average. The southern provinces would appear to be much better-off or nearly on par with national economic conditions; however, these data are not corrected for a cost-of-living adjustment for higher prices in the south.

4. Three provinces—Ben Tre, Long An and Quang Ngai—are covered by the Australian Agency for International Development-supported Primary Health Care project. However, this project does not cover all communes and all health areas. The proposed Project will provide complementary investments and focus on the remaining communes and uncovered health areas in these three provinces.

5. The proportion of communes without doctors clearly shows that most of the project provinces are below the national average in the level of rural resources for health. The most significant indicator of need and overall development status relative to a national norm is reflected in the 1992/93 indicator of rate of GDP growth minus population growth. This indicator reflects whether an area is developing at or below its ability to keep up with population growth. As shown for the country as a whole, economic development significantly exceeded the growth in population. However, for the project provinces this indicator would reflect that, with the exception of three, the provinces are still struggling with their overall economic development. Hoa Binh and Quang Binh are not only at a lower base than the country as a whole but are dropping further behind their neighboring provinces. The three provinces that are exceptions to the rest of the project provinces are all starting from a low base.

6. Table A4 further shows the status of the project provinces in relation to the government's criterion for communes with needs for special development assistance. The government has identified 1,715 communes in the country that meet this criterion. The project provinces include 249 (14.5 percent) of the communes that are considered the most needy in the country.

DETAILS OF CIVIL WORKS

A. Introduction

1. The primary objective of the Project is to improve access and increase the quality of care for the poor and disadvantaged in rural areas of the project provinces. One aspect of the strategy to achieve this objective is to improve the physical appearance, functional capability, and hygienic conditions of the health facilities, especially at the district level. The civil works activity will upgrade health facilities in the commune health centers, intercommune polyclinics, and district health centers to support the achievement of the project objective.

2. The Project will support upgrading of new or existing facilities based on the following guidelines:

(i) the design is based on support for a health service need such as improving the efficiency of services, improving the quality of care, or increasing equity of utilization of care;
(ii) the design will be financially viable; and
(iii) the design is based on a change in service structure that will yield effectiveness and efficiency improvements, such as with a new regional district center.

3. Each facility upgrading plan prepared by the province will show how the civil works design addresses the above general criteria and meets the following specific criteria for each type of facility.

B. Intercommune Polyclinics

4. Intercommune polyclinics will be strengthened in technical areas, based on needs common to a number of commune health centers such as:

(i) need for field supervision where effectiveness depends on coverage of more than one commune,
(ii) need for laboratory and other diagnostic facilities that require higher volumes of work for cost efficiency,
(iii) need for relatively intensive medical services to manage infectious and communicable disease as well as for higher level competencies in maternal and child health care, and
(iv) need for better emergency care capabilities for management of common diseases and facilities for patient transport.

5. Investment in civil works will be targeted to support new equipment and improved hygienic conditions for the above functions, normally through modification of existing spaces. A whole diagnostic and treatment block may be built if the design meets the general criteria noted above for civil works not to exceed 150 square meters. Additional civil works may be considered beyond the basic model for polyclinics in mountainous areas and those most remote from referral centers. The polyclinic will have 10-15 beds with supporting equipment based on the above functions. A new polyclinic may be constructed when rehabilitation would cost 60 percent or more of a new facility.

C. District Health Center and Regional Hospital

6. District health centers will be a priority facility for civil works upgrading and will be strengthened with regard to the following technical and managerial capabilities:

(i) improving field supervision (technical and managerial) for commune health centers and polyclinics in its area;
(ii) providing laboratory and diagnostic services to support health conditions in its area;
(iii) providing medical and surgical services for managing care of persons hospitalized for infectious and communicable diseases, as well as higher competencies in maternal and child health care; and
(iv) providing emergency care for common conditions in the area.

7. Investment in civil works will be targeted to support the district health centers technical and management capabilities for public health operations. District clinical capabilities as a hospital may be improved primarily because credible and effective leadership and supervision in preventive care are more effective when provided in tandem with reliable and quality curative care. Investment will be made to support new equipment and improve hygienic conditions for the above functions, normally through modification of existing space. A whole diagnostic and treatment block not to exceed 1000 square meters, may be built if the design meets the general civil works criteria noted above. Renovations may be required for proper X-ray, laboratory, operating, delivery, centered sterible obstetrics and gynecological services and emergency rooms. A district center will not be considered for civil works if it is within 30 minutes' normal travel time of a provincial hospital.

8. Special investment consideration will be given to district center proposals that are part of a provincial regional district plan including the rationalization of current services, reducing some services or providing for new services to meet a changing burden of disease in the community. District hospitals, called regional hospitals, will be located in remote areas (at least 2 hours' travel time from the provincial health centers). The investment for the facility will be similar to that for district health center, but with a larger capacity of up to 150 beds. The size of the building including the diagnostics, treatment, and inpatient facilities will not exceed 4,000 square meters.

INDICATIVE LIST OF EQUIPMENT

A. Commune Health Center

No.	Item	Qty	No.	Item	Qty
1.	Aspirator nasal infant size 30ml	1	16.	Scale infant clinic metric 12.5 kg x 15g	1
2.	Bag hot water and ice combination 2 liters rubber	1	17.	Scale infant portable, spring, suspension type 25 kg x 0.5 kg	1
3.	Bath baby oval 25 liters polyethylene	1	18.	Scale physician adult metric 140 kg x 100g	1
4.	Cupboard for drugs and instruments	1	19.	Sphygmomanometer aneroid 300 mm/Hg with cuff	1
5.	Clean delivery instrument bag	1	20.	Sphygmomanometer cuff for child size	1
6.	Diagnostic set	1	21.	Stethoscope binaural complete	2
7.	Disinfector instrument, boiling type	1	22.	Stethoscope fetal pinard monaural	1
8.	Drum, sterilizing, cylindrical 240mm	2	23.	Sterilizer pressure electrical/fuel 18 liters	1
9.	Forceps sterilizer (utility) 200mm Vaughn CRM	2	24.	Stretcher, folding type	1
10.	Gas burner with gas container	1	25.	Stretcher, army type folding	1
11.	Gynecological examination table	1	26.	Table instrument on wheels	1
12.	Knives, blade, forceps, scissors for minor operation	2	27.	Thermometer clinical oral	2
13.	Labor and delivery bed (Viet Nam) SS	1	28.	Tray instrument shallow 480 x 330 x 19mm	2
14.	Patient bed	5	29.	Tongue depressor 165mm metal	3
15.	Patient cupboard	5			

B. Inter Commune Polyclinic

No.	Item	Qty	No.	Item	Qty
1.	Ambulance	1	24.	IUD removal forceps	5
2.	Gasoline Generator 2.5 VA	1	25.	IUD insertion kit	10
3.	Adenoidectomy instrument set	2	26.	Karmann syringe single valve	5
4.	Balance double beam triple clamp 2 kg	1	27.	Karmann syringe double valve	2
5.	Balance semi-analysis 250 with weight	1	28.	Light examining floor stand type	2
6.	Bed, labor and delivery	1	29.	Microscope binocular	2
7.	Bed patient stationary mattress	15	30.	Oesophagoscope forceps and Instrument set	2
8.	Patient cupboard	15	31.	Ophthalmic examining lamp (Hammer lamp)	2
9.	Chalazion instrument set	2	32.	Ophthalmic foreign body instrument set	1
10.	Diagnostic set	1	33.	Oxygen cylinder 40 lit-150 atm	2
11.	Dental hand instrument set	1	34.	Oxygen flow meter & humidifier	5
12.	Dressing sterilizer pressure electric, 50-70 litters	1	35.	Oxygen's bag	5
13.	Drum sterilizing d=340mm	10	36.	Resuscitator - hand operated	2
14.	Electric water bath	1	37.	Scale infant clinic metric 15.5 X 0.005 kg	2
15.	Electric suction unit	3	38.	Scale physical adult metric (140 kgs x 100g)	2
16.	Etropian instrument set	2	39.	Sphygmomanometer aneroid 300mm/Hg with cuff	2
17.	Fluorescent film illuminator	1	40.	Spare cuff for child size	1
18.	Gynecological examining table	2	41.	Sterilizer boiling type 600 x 400 x 400	1
19.	Gypsum cutter	1	42.	Sterilizer for syringe/needle - boiling, 220 V/50Hz	1
20.	Haemacytometer set complete	2	43.	Station water filter, chlorination	1
21.	Head light specialist	1	44.	Stretcher army type - folding	1
22.	Infrared therapy lamp	1	45.	Stretcher combination wheel	1
23.	Instrument & drug cabinet (VN)	3	46.	Stool adjusted revolving	1

No.	Items	Qty	No.	Items	Qty
47.	Surgical instrument minor kit	1	57.	Tray instrument covered 225 x 125mm	20
48.	Syringe hypodermic 2ml-Luer-glass	5	58.	Tray instrument shallow 343 x 247 x 16mm	4
49.	Syringe hypodermic 5ml-Luer-glass	5	59.	Tray instrument shallow 480 x 330 x 16mm	4
50.	Syringe hypodermic 10ml-Luer-glass	5	60.	Ultraviolet lamp for sterilizer	1
51.	Syringe hypodermic 20-Luer-glass	3	61.	Ventory Set for I.V	2
52.	Syringe rectal infant rubber bulb	1	62.	Wheelchair invalid folding	1
53.	Table –instrument Mayo type with tray	1	63.	Tracheotomy kit	1
54.	Table examination, folding	1	64.	Tubectomy kit	3
55.	Table instrument on wheels		65.	Vasectomy kit (non-scalpel)	5
56.	Table minor operation	1			

C. District Health Center and Regional Hospitals

No.	Item	Qty	No.	Item	Qty
A.	**Basic Equipment**				
1.	Electrocardiograph	1	6.	Electrophoresis apparatus	1
2.	Respirator	1	7.	Oxygen Concentrator	1
3.	Colorimeter photoelectric	1	8.	X-ray machine(accessories)	1
4.	Ultrasound	1	9.	X-ray film autoprocessing apparatus	1
5.	Laparoscope	1	10.	Fluorescent film illuminator	1
B.	**Laboratory Equipment**				
11.	Balance double beam triple clamp 2 kg	1	15.	Haemacytometer set complete	2
12.	Balance semi-analysis 250g with weight	1	16.	Incubator oven lab. 400 x400 x 300mm	1
13.	Centrifuge angle head 220v	1	17.	Microscope binocular	2
14.	Centrifuge micro hematocrite 24 tubes	1	18.	Urine analyzer	1
C.	**Surgical Equipment**				
19.	Light operating	1	29.	Endotracheal	2
20.	Operating table	1	30.	Tracheotomy kit	1
21.	Electric suction unit	3	31.	Surgical instrument major kit	2
22.	Gypsum cutter	1	32.	Surgical instrument minor kit	2
23.	Oxygen flow meter & humidifier	5	33.	Table adjustable Mayo type with tray	4
24.	Oxygen's bag	5	34.	Table instrument on wheels	4
25.	Pumps aspirating surgical 220V/50Hz	2	35.	Tray instrument covered 225 x 125mm	20
26.	Resuscitator – hand operated	2	36.	Tray instrument shallow 343 x 247 x 16mm	8
27.	Ventory Set for I.V	2	37.	Ultra violet lamp for sterilizer	1
28.	Anaesthesia portable	1	38.	Light examining floor stand type	2
D.	**Other Specialty Equipment**				
39.	Adenoidectomy instrument set	2	46.	Ophthalmic examining lamp (Hammer lamp)	2
40.	Head light specialist	1	47.	Retinoscope	1
41.	Ophthalmic examination set	2	48.	Dental hand instrument set	1
42.	Chalazion instrument set	2	49.	Oesophagoscope forceps and instrument set	2
43.	Enucleation instrument	2	50.	Infrared therapy lamp	2
44.	Etropian instrument set	2	51.	Microwave therapy apparatus	1
45.	Ophthalmic foreign body instrument, set	1	52.	Nebulizer	2
E.	**Hospital Furniture**				
53.	Instrument & drug cabinet (VN)	3	58.	Stretcher army type - folding	2
54.	Bed patient stationary mattress	50	59.	Stretcher combination wheel	2
55.	Patient cupboard	50	60.	Wheelchair invalid folding	2
56.	Syringe rectal infant rubber bulb	10	61.	Stool (adjusted revolving)	2
57.	Syringe hypodermic 20ml-Luer	10	62.	Electric generator 2.5 VA	1

No.	Item	Qty	No.	Item	Qty
F.	**Sterilization Equipment/Instrument**				
63.	Dressing sterilizer pressure electric, 50-70 litters	1	66.	Sterilizer for syringe/needle - boiling, 220 V/50Hz	10
64.	Drum sterilizing d=340mm	10	67.	Sterilizer hot air 220V/50Hz	3
65.	Sterilizer instrument boiling type 600 x 400 x 400	10	68.	Station water filtration, chlorination	1
G.	**Diagnostic Instrument**				
69.	Diagnostic set	1	73.	Monitor-patient	1
70.	Sphygmomanometer aneroid 300mm/Hg with cuff	2	74.	Scale infant clinic metric 15.5 X 0.005 kg	2
71.	Sphygmomanometer with cuff size for children	1	75.	Scale physical adult Metric (140 kgs x 100g)	2
72.	Table examination, folding	3			
H.	**Gynecological Instrument sets**				
76.	IUD removal forceps	5	81.	Thermovanocutery + electrodes for gynec (200)	1
77.	IUD insertion kit	10	82.	Gynecological examining table	2
78.	Tubectomy kit	10	83.	Cesarotomy and hysterec. instrument set with 20 items	2
79.	Vasectomy kit (non-scalpel)	20	84.	Monitor-fetus	1
80.	Bed labor and delivery	2			
I.	**Vehicle**				
85.	Ambulance	1	86.	Motorbikes	4

INDICATIVE LIST OF TRAINING ACTIVITIES

No.	Training Course	Number	Duration	Participants	Objective/Outputs	Location	Unit Cost
1.	Provincial training planning workshop (A.4.2.1)[a]	13X5 years	3 days	40 persons (provincial staff, project staff, training district)	Annual provincial training plans	Project province	$25X3
2.	Epidemiology and food safety at provincial level (C.1.3) [a]	5	1 week	10-15 persons (5 health staff from/ each provincial center for medical prevention)	65 health staff trained to improve the management of food safety	NIHE, Pasteur Inst. in Ho Chi Minh City (HCMC) & Nha Trang	$25X5
3.	Food safety and management at district level (C.1.3) [a]	13	3 days	20 persons (2 health staff from each district health center [DHC])	200 health staff trained to improve the management of food safety	Project provinces	$25X3
4.	Behavior change communication (BCC) capacity training at provincial level (C.2) [a]	13x2 years	4 days	20 persons (from health education, medical prevention of province)	400 health staff trained for planning and implementing BCC	Project province or Can Tho	$25X4
5.	Project management course (B.3.2) [a]	13	3 days	30 persons (provincial staff, district staff)	400 project staff trained for implementing, monitoring, evaluating the Project	Project province	$25X3
6.	District health management (B.2.2) [a]	13	5 days	30 persons (district health managers, project staff, head of epidemiology team)	400 health staff trained to strengthen district health management	Project province (secondary medical school [SMS])	$25X5
7.	Health financial management at district level (B.2.2) [a]	13	4 days	30 persons (district health managers, project staff head of epidemiology team)	400 health staff trained to improve the health financial management	Project province	$25X4
8.	Management of health insurance pilots (B.2) [a]	4	5 days	25 persons (from DHC, project staff)	100 health staff trained to implement health insurance pilot	Project provinces and Hai Phong	$25X5
9.	Health statistics at district level (including monitoring analysis) (B.2.1) [a]	13	4 days	30 persons (district health managers, project staff head of epidemiology team)	250 health staff trained to improve the quality of health statistics and management	Project province (SMS)	$25X4

[a] Notation within brackets represents the component and subcomponents of the Project.

No.	Training Course	Number	Duration	Participants	Objective/Outputs	Location	Unit Cost
10.	Medical skills for medical doctors at district level (special courses) (A.4.2.1) [a]	7x5 years	4 weeks	15 persons (5 medical doctors from each DHC)	500 medical doctors trained to improve the quality of emergency, surgical and diagnostic services	Good selected hospitals in HCMC, Hanoi, Can Tho, Da Nang	
11.	Management of obstetric emergency cases (A.4.2.1) [a]	13x5 years	1 week	15 persons (5 health workers from Dept. of Emergency of each	500 health workers trained to improve the quality of essential obstetric emergency service	Good selected provincial hospitals	$30X5
12.	Nursing care for health workers in the hospital (A.4.2.1) [a]	13x2 years	4 days	20 persons (7 nurses per DHC)	700 nurses trained to improve the quality of total nursing care in the DHC	Project province (SMS)	$25X4
13.	Management of medical equipment (C.1.3) [a]	13x2 years	3 days	20 persons (2 medical technicians per district)	200 technicians trained to improve the use/maintenance of medical equipment in the DHC	Project province or (subcontract with the supplier)	$25X3
14.	Interpersonal communication skills for health workers at district level (C.2) [a]	13x2 years	4 days	20 persons (4 selected health workers per district)	400 health workers trained to work as health counselor in their district (counseling)	Project provinces (SMS)/ nongovernment organization (NGO)	$25X4
15.	Integrated Care for commune health center (CHC) workers (A.4.1.2) [a]	103X5 years	3 days	10-30 persons (3 from each CHC)	6000 CHWs trained for primary health care (PHC)	District health center	$10X3
16.	PHC in the community for village health worker (VHW) (C.3) [a]	103x5 years	2 days	30 persons (1 selected VHW or traditional birth attendants [TBA] per village)	14500 VHW or TBA trained to improve the community involvement in PHC	Project district/ NGO	$7x2

COST ESTIMATES

Table A8.1: Cost Estimates by Category of Expenditure [a] ($'000)

Category	ADB	Govt.	Total
A. Base Cost			
1. Civil Works	27,786	6,680	34,466
2. Medical Equipment and Furniture	18,433	3,741	22,174
3. Office Equipment and Furniture	231	-	231
4. Drugs and Medical Supplies	329	3,171	3,500
5. Consulting Services	267	-	267
6. Training and Material Production	2,056	175	2,231
7. Information System	641	210	851
8. Communication Activities	2,782	278	3,060
9. Community Participation Activities	2,634	275	2,909
10. Transport and Travel	762	103	865
11. Research, Monitoring and Evaluation	1,726	54	1,780
12. Operation and Maintenance	-	7,112	7,112
13. Project Staff	492	220	712
Subtotal (A)	**58,139**	**22,019**	**80,159**
Taxes, Duties and Land	**-**	**6,570**	**6,570**
B. Contingencies			
1. Physical	5,624	-	5,624
2. Price	2,776	-	2,776
Subtotal (B)	**8,400**	**-**	**8,400**
C. Service Charge During the Project	**1,773**	**-**	**1,773**
Total	**68,312**	**28,590**	**96,901**

ADB = Asian Development Bank

[a] Only ADB and Government.

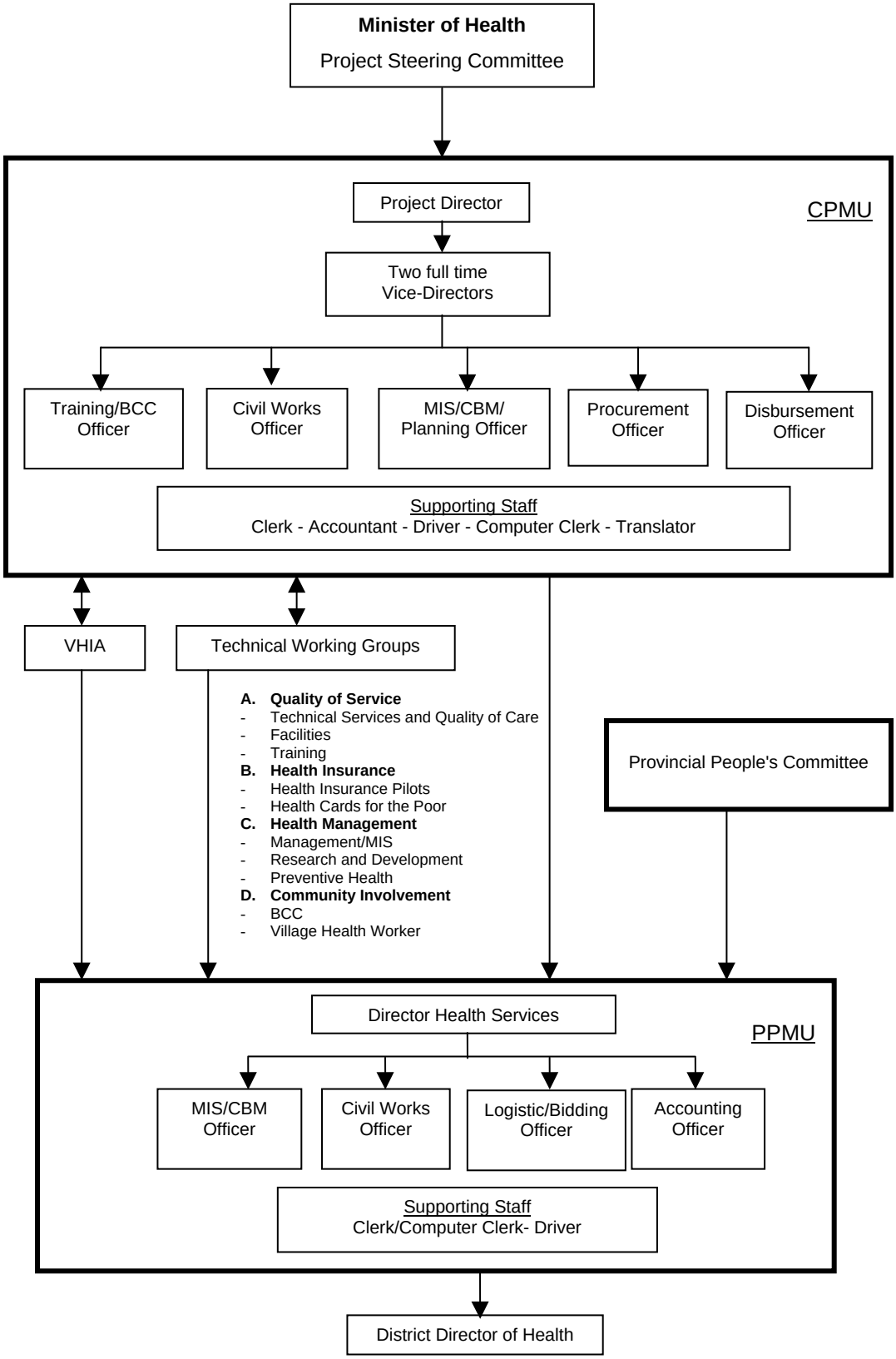
Table A8.2: Total Project Cost by Funding Agency

Component	ADB FX	ADB LC	ADB Total	Govt. FX	Govt. LC	Govt. Total	UNICEF/UNFPA/WHO FX	UNICEF/UNFPA/WHO LC	UNICEF/UNFPA/WHO Total	Project Cost FX	Project Cost LC	Project Cost Total
I. Base Cost												
A. Improving Access and Quality of Care												
1. Services	244	288	532	-	26	26	50 (WHO)	50	100	294	364	658
2. Facilities Upgrading	2,547	22,925	25,472	-	9,959	9,959	-	-	-	2,547	32,884	35,431
3. Equipment, Supplies and Drugs	13,093	1,455	14,548	-	8,901	8,901	-	-	-	13,093	10,356	23,449
4. Training	-	1,466	1,466	-	129	129	100 (UNFPA)	200	300	100	1,794	1,894
Subtotal	**15,884**	**26,133**	**42,018**	**-**	**19,015**	**19,015**	**150**	**250**	**400**	**16,034**	**45,398**	**61,432**
B. Improving Health System												
1. Financial Management	238	535	774	-	79	79	150 (WHO)	50	200	388	664	1,053
2. Management and Supervision of Health Services	323	2,353	2,676	-	359	359	200 (UNICEF)	200	400	523	2,913	3,436
3. Project Management	700	1,865	2,565	-	647	647	-	-	-	700	2,511	3,212
Subtotal	**1,262**	**4,753**	**6,015**	**-**	**1,085**	**1,085**	**350**	**250**	**600**	**1,612**	**6,088**	**7,700**
C. Strengthening Prevention and Community Participation												
1. Preventive Activities at Province	2,627	1,142	3,769	-	898	898	-	-	-	2,627	2,040	4,667
2. Behavior Change Communication	1,132	4,205	5,337	-	913	913	400 (UNICEF 600 & UNFPA 200)	400	800	1,532	5,518	7,050
3. Village Health Worker	-	1,000	1,000	-	109	109	-	-	-	-	1,109	1,109
Subtotal	**3,759**	**6,348**	**10,107**	**-**	**1,920**	**1,920**	**400**	**400**	**800**	**4,159**	**8,668**	**12,826**
Total Base Cost	**20,905**	**37,234**	**58,139**	**-**	**22,019**	**22,019**	**900**	**900**	**1,800**	**21,805**	**60,154**	**81,959**
Taxes, Duties and Land	**-**	**-**	**-**	**-**	**6,570**	**6,570**	**-**	**-**	**-**	**-**	**6,570**	**6,570**
II. Contingencies												
A. Physical	2,057	3,567	5,624	-	-	-	-	-	-	2,057	3,567	5,624
B. Price	1,070	1,706	2,776	-	-	-	-	-	-	1,070	1,706	2,776
Subtotal	**3,127**	**5,273**	**8,400**	**-**	**-**	**-**	**-**	**-**	**-**	**3,127**	**5,273**	**8,400**
III. Interest on Loan	**1,773**	**-**	**1,773**	**-**	**-**	**-**	**-**	**-**	**-**	**1,773**	**-**	**1,773**
TOTAL	**25,805**	**42,507**	**68,312**	**-**	**28,590**	**28,590**	**900**	**900**	**1,800**	**26,705**	**71,997**	**98,701**

ADB = Asian Development Bank; FX = foreign exchange; LC = local currencyl; UNFPA = United Nations Population Fund; UNICEF = United Nations Children's Fund; WHO = World Health Organization.

Appendix 9

PROJECT MANAGEMENT STRUCTURE



BCC = behavior change communication, CBM = community-based monitoring, CPMU = Central Project Management Unit, MIS = management information system, PPMU = provincial project management unit.

IMPLEMENTATION SCHEDULE

Activity/Tasks	Operational Responsibility	Collaborating Institutions		Year 1	Year 2	Year 3	Year 4	Year 5
		National/ Provincial	International					
A. Improving Access and Quality of Care								
A.1 Services								
A.1.1 Integrated Care Guidelines								
• Establish Technical Committee	CPMU	C/MCH-FP						
• Prepare National Guidelines	C/MCH-FP		WHO					
• Prepare Learning Materials	C/MCH-FP	C/S&T	WHO					
• Train Provincial Staff	C/MCH-FP	C/S&T/ P/SMS						
• Monitor and Evaluate	P/(MCH-FP)							
A.1.2 Quality of Care Guidelines								
• National Guidelines	C/Therapy	C/MCH-FP						
• Learning Materials	P/PHC	C/Therapy						
• Training of Provincial Staff								
• Monitoring and Evaluation								
A.2 Facilities Upgrading								
• Provincial Plan	PPMU							
• Survey and Design	PPMU	C/ME&C						
• Bidding and Contract Award	PPMU	C/ME&C						
• Supervision	PPMU							
A.3 Equipment								
• Provincial Plan	PPMU	CPMU/ C/ME&C						
• Bidding and Contract Awards	CPMU	PPMU/ C/ME&C						
• Supply, Installation and Training								
A.4 Training								
• Learning Materials (see Integrated Care)								
B.4.1 • Commune Level								
• Annual Plan	P/SMS	C/S&T						
• Implementation	P/SMS	C/S&T	UNFPA					
• Monitoring & Evaluation	P/SMS	C/S&T						
B.4.2 • District Level								
• Annual Plan	P/SMS	C/S&T						
• Implementation	P/SMS	C/S&T	UNFPA					
• Monitor & Evaluation	P/SMS	C/S&T						
B. Improving Health System								
B.1 Financial Management								
B.1.1 Health Financing for the Poor								
• Capacity Building	VHIA	PHIA	WHO					
• HIMIS	VHIA	PHIA	WHO					
• Monitoring & Studies	VHIA	PHIA	WHO					
B.1.2 Health Insurance Pilots								
• Plan	VHIA	PHIA	WHO					

Activity/Tasks	Operational Responsibility	Collaborating Institutions		Year 1	Year 2	Year 3	Year 4	Year 5
		National/ Provincial	International					
• Training	VHIA	PHIA	WHO					
• Implementation	VHIA	PHIA	WHO					
B.2 Management and Supervision of Health Services								
B.2.1 Management/Planning Training at Provincial/District Level	P/Plan	P/PHC/ C/Plan						
B.2.2 MIS	D/Plan	P/Plan C/Plan						
• Development of Software								
• Hardware								
B.2.3 Community Based Monitoring								
• CBM Guidelines	C/Plan	P/Plan	UNICEF					
• Provincial Training	C/Plan	P/Plan	UNICEF					
• Operations	P/Plan	C/Plan	UNICEF					
B.2.4 Special Studies	PPMU	P/PHC						
B.3 Project Management								
B.3.1 • CPMU								
B.3.2 • PPMU								
C. Strengthening Prevention and Community Participation								
C.1 Preventive Activities at Province								
C.1.1 • Civil Works	PPMU	P/PHC C/FS&H						
C.1.2 • Equipment	CPMU	PPMU, P/PHC/ C/FS&H						
C.1.3 Training & Policy Support	C/FS&H	P/PHC						
C.2 Behavior Change Communication								
C.2.1 • National Guidelines	C/HE	C/MCH-FP/ C/PM	UNICEF/ UNFPA					
C.2.2 • Provincial Capacity Building								
• Civil Work	P/IEC	C/HE						
• Equipment	P/IEC	C/HE						
• Training	P/IEC	C/HE						
C.2.3 BCC Campaigns								
• Provincial BCC Strategy & Plans	C/HE	C/MCH-FP/ C/PM	UNICEF/ UNFPA					
• Implementation of BCC plans	P/IEC	C/HE						
C.3 Village Health Worker	P/SMS	P/Plan						
• Selection of Health Workers								
• Training								
• Provision of Material and Supplies								
• Support and Supervision								

C/F&A = MOH Department of Finance and Accounting, C/FS&H = MOH Food Safety and Hygiene, C/HE = MOH Health Education Unit, C/MCH-FP = MOH Department of Mother and Child Care and Family Planning, C/ME & C = MOH Department of Medical Equipment and Construction, C/Plan = MOH Department of Planning, C/PM = MOH Department of Preventive Medicine, C/S&T = MOH Department of Science and Training, C/Therapy = MOH Department of Therapy, P/IEC = Provincial IEC Office, P/PHC = Provincial Preventive Health Center, P/MCH-FP = Provincial MCH/FP Center, P/Plan = Provincial Planning Office, P/SMS = Provincial Secondary Medical School, PHIA = Provincial Health Insurance Agency.

SUMMARY OF CONSULTING SERVICES

Project Component	Input[a] (person-months)	Output
A. Improving Access and Quality of Care		
Integrated Care Packages		
National Guidelines	32/8[b]	Technical Service and Quality of Care Advisory Group Prepare integrated care packages with quality of care measures Support provincial adaptation Conduct workshops on the above guidelines Prepare list of indicators Support provincial selected indicators Provide ongoing support to provinces Review after 2 years implementing the guidelines Monitoring and assessment
Facilities Upgrading	156	Architectural plans for civil works (commune health center, intercommune polyclinic, district health center, regional hospitals, information, education and communication center and primary health care PHC) Appraisal of bidding Supervision of civil works constructions
Equipment	34	Prepare bidding document Evaluate bids Guidelines for training in use of equipment Supervise installation and inspection
Training		
Learning Materials	32	Technical Service and Quality of Care Advisory Group Prepare training materials and programs (including for ethnic minority program) Support provincial adaptation Assist in conduct of workshops on the above guidelines Support provincial selected indicators Provide ongoing support to provinces Develop criteria for monitoring and evaluation of training
Training	14	Training materials for district staff on program Assist in workshops on organizational development for staff Review after 2 years implementing the guidelines Monitoring and assessment

[a] One international and 98 domestic consultants will provide 8 and 522 person-months of services, respectively.

[b] Domestic consultants – 32 person-months; international consultant, 8 person-months.

Project Component	Input[a] (person-months)	Output
B. Improving Health System		
Health Insurance		
Capacity Building	13	Assist in Health Insurance Advisory Group Develop national policy for rural health insurance scheme in conjunction with Health Insurance Advisory Group Management systems to plan, monitor, and assess insurance program Studies on rural health Insurance Design pilot health insurance schemes Produce training materials on health finance Training for trainers in financial issues Technical support to provinces
Information System	28	Design of management information system (MIS) Software to support information system Train staff on use of information system Technical support to provinces
Monitoring /Evaluation	15	Client assessment of health service utilization Targeting of health resource allocation Provider payment mechanism Health insurance impact on health services for the poor Technical support to provinces Assess the responsiveness of training programs Adjust and revise project training materials
Marketing	23	Information education package for clients Information education package for provider Marketing schemes for information education package Technical support to provinces
Provincial Development and Planning		
Provincial Planning	9	Provide methods to assess health status Provide methodology for health provider system Assist provincial development plan Monitoring and assessment of provincial development plan
Training in MIS	20	Training materials
Community Based Monitoring (CBM)	40	Guideline on district planning Guideline on CBM Train staff in CBM Monitoring and assessment of district planning
Central Project Management		
Midterm Review	10	Assessment of project achievement Recommendation to improve project implementation

Project Component	Input[a] (person-months)	Output
National Health Survey	50	Design surveys of project indicators Conduct surveys Review project performance indicators Assess measures of project indicators
C. Strengthening Prevention and Community Participation		
Behavior Change Communication		
National Guidelines	16	Design and production of generic information, education and communication (IEC) materials Guidelines for provincial adaptation of IEC materials Special IEC package for ethnic minorities Training materials on use of IEC Monitoring and assessment plan for IEC activities
Village Health Worker		
National Guidelines	30	Training materials for village health workers Technical support for provinces Monitoring and assessment of village health worker training program
Total person-months	522/8	

Appendix 12

BME INDICATORS

Indicator	Definition	Objective	Source
1. IMR (infant mortality rate, emphasis on neonatal mortality)	Number of infants who die before reaching one year of age, per 1,000 live births in a given year. Neonatal are those who die within 28 days of birth.	Reduction in IMR in rural areas from current level of about 41 to 31 by 2006 and neonatal from 22 to 16 mortality rate	Baseline and final survey
2. BOD (burden of disease) [DALY])	The total burden of disease from all causes of premature mortality and morbidity. DALY (disability adjusted life year) is the years lost due to mortality plus the years lived with a disability.	Decrease in health status gap in rural areas between the poorest and the highest quintile by 25 percent	Baseline and final survey
3. ANC (antenatal care)	The number of times a pregnant women attends a health facility for the purpose of monitoring the pregnancy	Increase the number of visits for antenatal care in rural areas from 2 to 2.5 by 2006	Baseline and final survey
4. Quality to Care	The proportion of commune health centers (CHCs), intercommune polyclinics (ICPs), and district health centers (DHCs) with equipment, materials, drugs and skilled health care providers	90 percent DHCs, and 80 percent ICPs and CHCs to meet the standards	Baseline and final survey
5. Utilization of Public Health Services by the Poor	The proportion of poor using district-level health services	Reduction in the utilization gap for outpatient and inpatient district health services between the poorest and the highest quintile by 25 percent.	Baseline and final survey
6. Financial Support for the Poor	The proportion of poor people exempted from charges when they seek medical care and share of poor people given health insurance cards	The proportion of poor receiving support to increase by 25 percent	Baseline and final survey
7. Health System Management	The proportion of CHCs and DHCs that are regularly inspected, supervised, and supported	Objective to be set by Central Project Management Unit (CPMU) after review of baseline information	Baseline and final survey
8. Targeting Financial Resources	The proportion of all financial resources that are targeted for preventive care in rural areas	Objective to be set by CPMU after review of baseline information	Government records
9. Incidence of Foodborne Diseases	Incidence of illness attributable to foodborne diseases	Reduction in the incidence of foodborne diseases by 25 percent	Baseline and final survey
10. Behavior Change Communication	Level of knowledge about key health issues	Objective to be set by CPMU after review of baseline information	Baseline and final survey

POVERTY ANALYSIS

A. Poverty in Viet Nam

1. **Level and Trends**. While living conditions in Viet Nam have been improving during the 1990s, a significant proportion of the country's population remains poor. A recent World Bank study[1] on poverty in Viet Nam reports that the population living below the poverty line dropped from 58 percent in 1993 to 37 percent in 1998. While Viet Nam's achievements in poverty reduction are impressive, the gains remain fragile. A significant number of the poor positioned a little below the poverty line in 1993 improved their living conditions to cross the poverty line and were clustered just above the poverty line. A relatively small deterioration in their living standards—triggered by community-wide, household or individual crises—would be sufficient to push them below the poverty line again.

2. **Characteristics of the Poor**. Poverty in Viet Nam is closely linked to access to economic opportunities, education levels, and ethnicity. Poverty is largely a rural phenomenon, with 90 percent of the poor living in rural areas and about 45 percent of rural people living below the poverty line. The income differential between rural and urban areas is significant and widening. In 1998, the median household income in rural areas amounted to D2.3 million, whereas in urban areas it was D5.1 million, more than 2 times larger. Not surprisingly, educational status is one of the important determinants of poverty. In 1998, 57 percent of those without any education were poor, whereas only 25 percent of those who had attained an upper secondary education were poor. Among the more educated, the percentage of the poor was even lower (4 percent among university graduates). Poverty is concentrated among small-scale agriculturists or those who are unemployed. Finally, over half (51 percent) of the poor live in mountainous or isolated areas of either the north or central highlands or the north coast regions. These are the areas of the country where most of the ethnic minorities reside.

B. Health Status and Poverty

3. Poverty and health status are closely associated in Viet Nam. The occurrence of illness—leading to loss of labor resources and significant costs for curative health care and associated expenditure—is reportedly one of the prominent causes of poverty. Studies show that once a household loses an adult member to sickness or disability, income levels suddenly drop and the household slides into poverty. Most of the poor are self-employed in small business or agriculture, or depend on daily wages. Unlike people with fixed salaries, the self-employed poor find the opportunity cost of sickness and treatment a heavy burden. The direct cost of treatment has in fact grown tremendously during the period after *doi moi* (transition from the centrally planned economy to the market economy).

4. While sickness and ill health lead to poverty, health indicators for the poor tend to be worse than those for the nonpoor. Some selected health indicators (Table A13.1) demonstrate this link. The burden of disease—as measured by the disability adjusted life years (DALYs) lost per thousand people—among the poorest rural young children is more than 27 times the rate experienced by those in urban areas. For the entire population, the poor rural population has a fourfold greater disease burden than do urban dwellers.

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[1] World Bank. 1999. *Vietnam Development Report 2000, Attacking Poverty: Country Economic Memorandum*. Report No. 19914-VN. Washington D.C.: World Bank.

5. Malnutrition among children less than 4 years is nearly three times greater for the rural poor than for urban dwellers. Tobacco use—an indicator of future chronic health problem—is greater among the poor than among the nonpoor. For example, about 58 percent men in the poorest quintile use tobacco products compared with 43 percent in the richest quintile. The average duration of illness restricting normal activity is greater among the poor than among to the well-off—17.5 percent greater in rural areas and 33 percent in urban areas.

6. In 1998, the infant mortality rate (IMR) among the rural poor areas of the Project was nearly 54 percent greater than that in all rural areas and fourfold greater than that in urban areas. In part, this difference reflects the relative availability of MCH services. Similarly, in the mid-1990s, life expectancy was over 10 years longer in the more urban and relatively affluent Red River Delta region (70.8 years) than that in the poorer and mountainous central highlands (60.5 years).

Table A13.1: Health Status and Poverty

Health Indicator	Urban	Rural	Rural Poor
1. DALYs Lost per Thousand Population[a]			
a. 0-4 years	150	861	4,170
b. 15-44 years	211	243	532
c. 65+ years	584	944	1,676
Total	229	336	1,062
2. Malnutrition Rate Among Children Under 4 Years (weight < 2.5 kg)	9.6	21.8	28.4
3. Infant Mortality Rate	10.4	26.7	40.0

[a] Dunlop, D.W. 1999. Economic Analysis of Proposed ADB/MOH Rural Health Project.

C. Health Care Utilization

7. While the poor suffer from the heaviest disease burden, they are also less likely to seek health care. They use poorer quality service providers compared with the nonpoor. Table A13.2 shows that the affluent seek health care services 45 percent more frequently than do the poorest group. If contacts with drug vendors are excluded, this difference is further magnified. The affluent seek care nearly twice as often as the poorest (4.6 times compared with 2.4 times per person per year).

8. When sick, the poor often do not seek any health care, mainly due to the large direct and indirect costs. More than 30 percent of poor people in the project area reported that they did not seek health care when they last fell sick. When they did seek services, it was often from drug vendors and commune health centers, whereas the affluent went more often to public hospitals and private physician clinics. The personnel in health facilities where the poor tend to seek care are usually less trained and less capable of providing high-quality service. Hospital use is highly skewed toward the affluent, with the admission rate nearly twice as high for the affluent as for the poorest group. The affluent also tend to have longer hospital stays, in part due to their higher health insurance coverage.

Table A13.2: Health Service Use in Viet Nam, by Expenditure Quintile, 1998

Health Service Use Indicator	Poorest	Second	Third	Fourth	Richest
Per Capita Contacts with All Providers	7.9	10.5	11.3	10.6	11.4
Per Capita Health Service Contacts (excluding Drug Vendors)	2.4	3.2	3.8	3.7	4.6
Share of Contacts at Public Hospitals	3.2	3.8	4.6	7.2	9.6
Share of Contacts at Commune Health Centers	7.4	6.8	6.9	5.6	1.7
Share of Contacts at Private Clinics	15.8	15.4	22.8	18.5	24.2
Share of Visits to Drug Vendors	69.3	69.7	66.6	64.8	59.4
Inpatient Admission Rate/1,000 person/year	33.9	43.5	49.3	61.9	63.3
Average Length of Stay	10.3	10.9	13.9	14.6	18.8

D. Health Financing by the Poor and the Nonpoor

9. Not only are the poor less healthy, seek care less frequently from health care providers and from poorer quality providers, they also spend considerable sums on the health care they do use. This is partly because a smaller proportion of the poor have health insurance coverage compared with the nonpoor (Table A13.3). Although, the poor spend a smaller amount on health care, the expense is much more onerous for they pay a larger share of their nonfood expenditure for health care. Even a single contact with the public hospital represents as much as 22 percent of the annual nonfood expenditure for a person from the poorest quintile. Health insurance coverage is also the lowest among the poorest groups—with 1 in 20 covered in the poorest group as opposed to about 1 in 3 for the affluent. To assist the poor in gaining better financial access to health care, their health insurance coverage needs to be significantly increased.

Table A13.3: Fees, Relative Cost of Selected Health Services, and Health Insurance Coverage of the Poor and the Affluent in Viet Nam, 1998

	Consumption Quintile				
Indicator	**Poorest**	**Second**	**Third**	**Fourth**	**Richest**
Per Capita Expenditure (D'000)	1.219	1.767	2.251	3.073	6.259
Share of Nonfood Expenditure per Contact at Public Hospital (%)	22.0	21.8	17.6	12.2	4.6
Share of Persons with Health Insurance (%)	6.2	9.5	13.5	18.9	28.7
Share of rural population with health insurance (%)	5.8	9.3	11.8	16.4	19.5

E. Project Assistance to the Poor

10. The Project will be implemented in 13 provinces, where 49 percent of the population are poor compared with the countrywide poverty incidence of 37 percent. Because of the high incidence of poverty in the project provinces, the Project will provide more than proportionate benefits to the poor. In addition, almost all the project interventions will self-target the poor. The majority of the project beneficiaries will be poor. The Project has special features to assist the poor and has been designed to reduce poverty by (i) improving access to health services for the poor, (ii) improving the affordability of health services to the poor, (iii) investing in health issues that disproportionately affect the poor, (iv) investing in prevention of health conditions that make

the people vulnerable to poverty, and (v) developing model approaches for comprehensive health insurance.

11. **Improving Access.** The Project will seek to enhance the health status of the poor by improving services and ensuring that these are more accessible. The poor tend to live in more remote areas. They are also typically self-employed in small business enterprises or work for daily wages. By reducing geographic distances to better health facilities at the commune, intercommune, and district levels, the project will mainly benefit the poor whose travel and opportunity costs in seeking health care will be reduced.

12. **Increasing Affordability.** The Project will support the government scheme to provide free health cards to the poor, which will benefit them by reducing the financial barriers to their use of services. The approximately 800,000 free health cardholders in the project area will directly benefit from the project interventions.

13. **Supporting Health Issues Affecting the Poor.** The Project will improve the quality of specific health care services, including those related to maternal and child health and diagnostics. In addition, the Project will focus on malnutrition, smoking, and reproductive health in its behavior change communication component. All these interventions will provide more than proportionate benefits to the poor, since they are more likely to be affected by these health conditions. For example, more than 50 percent of children and pregnant women in the project area are poor. The majority of beneficiaries from intervention for reproductive health or maternal and child health services are likely to be poor. Similarly, more than 70 percent of malnourished children are poor and the majority of tobacco users are poor. Clearly, interventions focusing on these issues will be pro-poor.

14. **Prevention.** Catastrophic and prolonged illnesses have been found to drag households into poverty. Some of these health conditions are accidents and injuries, HIV/AIDS,[2] tuberculosis, and cancers. Project interventions for emergency services, surgery, and diagnostics will assist in providing timely care for accident-related and other emergency conditions and in timely identification and cure of long-term illnesses. At the same time, the behavior change communication component of the Project will assist in preventing HIV/AIDS and injuries. These interventions will prevent the poor from becoming further marginalized, and the nonpoor from sliding into poverty.

15. **Health Insurance.** The Project will assist the poor by helping to create a financially sustainable rural-based social health insurance program, which over time might be extended to other parts of the country. This new social health insurance program will eventually cover all rural families, regardless of economic status. It will be partly financed in the short term by support from the Project as well as from a number of other sources, including public subsides from the Ministry of Health and other ministries, and from the community. The targeted subsidies from the project will facilitate the development of a sustainable health insurance mechanism through which the poor would gain access to the health care services they need to maintain and improve health status.

[2] human immunodeficiency virus/acquired immunodeficiency syndrome.

SUMMARY ETHNIC MINORITIES DEVELOPMENT PLAN[1]

A. Socioeconomic Profile of Ethnic Minority Groups

1. The objective of the Ethnic Minority Development Plan (EMDP) is to ensure that the ethnic minority population, especially women and children, in the 13 project provinces will have equal access to health benefits and community participation opportunities provided by the Project. In general, ethnic minority groups, especially those in rural remote and mountainous areas, are among the most disadvantaged subgroups of Vietnamese society. Their access to economic resources and social services, and their capacity to absorb opportunities, are limited. Poverty incidence among them is 75 percent, much higher than the national average of 37 percent.[2] Social indicators show stark gaps between the ethnic minorities and the national average. According to the 1997 Demographic and Health Survey, the percentage of women of reproductive age without formal education was 27.7 percent among ethnic minorities, much higher than 2.0 percent for the urban population and 6.4 percent for the rural population. This finding has the prevailing major implications for the health status of family members. These women are also far more disadvantaged in terms of their access to socioeconomic infrastructure and services.

2. There are 53 ethnic minority groups in Viet Nam, comprising around 13 percent of the total national population. The main groups are Tay (1.8 percent), Thai (1.5 percent), Hoa (1.4 percent), Khmer (1.3 percent), Muong (1.3 percent), and Nung (1.1 percent); they make up two thirds of the total ethnic minority population. Among the 13 project provinces, 3 have high concentrations of ethnic minority groups: northern highlands (Hoa Binh, Phu Tho, and Quang Ninh), Quang Ngai Province in central coast region, and Binh Phuoc Province in the southeast region (see Table A14).

3. The main ethnic minority groups in the northern mountainous project provinces are the Muong, Thai, Tay, Dao, and San Diu. Most of them belong to the Austrasiatic linguistic family, including the Viet-Muong linguistic group (e.g., Muong, Viet), H'mong-Dao linguistic group (e.g., H'mong, Dao), and Tay-Thai linguistic group (e.g. Tay, Thai, Nung San Chay). The San Diu belongs to the Chinese-descendent Han linguistic group together with the Hoa. The most typical characteristic of the ethnic groups in the northern mountainous provinces is their mixed residence across ethnic groups, although topography determines a general locational pattern for each group. While there are employment opportunities in mining, hydroelectric power plants, and forestry enterprises in some of the northern mountainous provinces, the ethnic minorities depend mainly on subsistence agriculture (rice and other food crops) and small-scale livestock raising, with some engaging in shifting cultivation. In some places, they also grow fruit crops or medicinal herbs.

4. The main ethnic minority groups in the central coastal project provinces are the Hre, Co, and Ra Glai. The Hre and Co belong to the Mon-Khmer linguistic group, while the Ra Glai belong to the Malayo-Polynesian linguistic family. These groups are concentrated in the western highlands of the provinces, which are difficult to access. Unlike the northern mountains ethnic minorities, the central ethnic minority groups tend to live in separate communities. The majority of them practice shifting agriculture and have a very low socioeconomic status. Their location

[1] The plan was originally prepared as part of a regional technical assistance-A Study of the Health and Education Needs of Ethnic Minorities in the Greater Mekong Subregion (TA 5794).

[2] Viet Nam Living Standards Survey (1997-1998).

and nature of their primary economic activity make their access to health, education, and other social services very difficult.

Table A14: Major Ethnic Minority Groups in Project Provinces, by Geographic Region

Region, Province	Population ('000)	Ethnic Minority Population '000	Ethnic Minority Population %[a]	Major Ethnic Minority Groups
Northern Highlands				
Hoa Binh	770	531	68.9	Muong (60.3%), Thai (3.9%), Tay (2.6%), Dao (1.6%)
Phu Tho	1,283	172	13.4	Muong (12.2%), Dao (0.8%)
Vinh Phuc	1,085	31	2.8	San Diu (2.5%), San Chay (0.1%)
Quang Ninh	938	101	11.7	Dao (4.5%), Tay (2.8%), San Diu (1.8%)
Red River Delta				
Ninh Binh	906	115	1.7	Muong (1.7%)
North Central Coast				
Quang Binh	806	18	1.7	Bru-Van Kieu (1.2%)
Central Coast				
Quang Ngai	1,234	133	10.8	Hre (8.3%), Co (1.2%)
Khanh Hoa	994	44	4.5	Ra Glai (3.2%), Hoa (0.6%)
Southeast				
Binh Phuoc	549	88	16.0	Stieng (10.9%), Kho Me (2.3%), M'nong (1.2%)
Mekong River Delta				
Long An	1,300	4	0.3	Hoa (0.3%)
Tien Giang	1,726	10	0.6	Hoa (0.5%)
Ben Tre	1,394	9	0.7	Hoa (0.6%)
Can Tho	1,905	66	3.5	Kho Me (1.8%), Hoa (1.7%)
Total	**14,890**	**1,322**	**8.9**	

[a] Percentage is not necessarily equal to the population percentage calculated by the figures presented here, due to rounding.

Source: The Committee for Ethnic Minority and Mountainous Area, 1997.

5. Living on the border with Cambodia, the majority of the ethnic minority groups in Binh Phuoc Province in the Southeast belong to the Mon-Khmer linguistic group, including the Stieng, Kho Mu and M'nong. These groups engage mainly in subsistence or shifting agriculture. Some (especially the Stieng) have had to adjust to the modern lifestyle that the migrating Kinh have brought in.

B. Health Status of Ethnic Minority Groups in the Project Provinces

6. The health status of the ethnic minorities is the most challenging among all the target groups, due to their general poverty, difficulties in outreach, their lack of awareness combined with high illiteracy rates, and, in many cases, health services that do not address their culturally sensitive needs and constraints. Their most common health problems leading to morbidity and mortality are communicable diseases (e.g., malaria, goiter, helminthiasis), nutritional deficiency, and poor perinatal and maternal conditions. Women of reproductive age bear the heaviest burden of diseases. The estimated maternal mortality among ethnic minorities is four times higher than the national average of 160-200 per 100,000 live births, and some data show even higher figures for some ethnic groups (e.g., 1,080 for Stieng in Binh Phuoc Province). Reproductive health problems are common among ethnic minority women. Their contraceptive prevalence rate is lower than the national average. Among children, those under five years of age bear the heaviest burden of ill health. Infant mortality, child malnutrition, respiratory infections, and prevalence of diarrhea are all higher among ethnic minority groups than the national average.

7. In general, the health needs of ethnic minority groups, especially women and children, are for more affordable, closer, and better quality services. However, there is wide variation in health seeking behavior between ethnic groups and even within the same group, depending on their economic status, the severity of the disease, distance to health care services, level of health and hygiene awareness, and culture and religious beliefs. The utilization level of both traditional and modern medicine also varies. A case-by-base approach is required to tackle such diverse needs. In addition, since these target groups belong to the low and very low socioeconomic strata, they are inevitably preoccupied with the immediate needs of improving income, and family health care is given lower priority. Therefore, raising their awareness about hygiene and primary health care is also important, to generate greater demand for health services.

C. Project Strategy and Components

8. The project EMDP will support and strengthen the ongoing Government strategy for ethnic minorities in the health sector, including Program 135 and Program 133 as part of the Hunger Eradication and Poverty Reduction (HEPR) Program, while adding new components that are specific to the Project. To achieve the goal of the EMDP, the Project will (i) mainstream special cultural and socioeconomic needs and concerns of ethnic minority women and children into all project activities, and (ii) provide ethnic minority-specific services and facilities.

9. The mainstreaming strategy will be implemented through the following components:

(i) guidelines and training responsive to the special needs of ethnic minority women and children (components A.1, A.3);
(ii) upgraded or new health facilities and equipment taking into account easier physical access by ethnic minority groups (A.2);
(iii) improved quality of health system and project management (B.2, B.3);
(iv) community-based approach responsive to diverse needs of ethnic minority communities (B.2, C.3);
(v) improved awareness-raising activities on primary health care through strengthened behavioral change communication (BCC) activities (C.2, C.3); and
(vi) more affordable access to public health care through free health cards for the poor (B.1).

10. The ethnic minority-specific strategy will be implemented through the following components:

(i) establishment of herbal gardens at commune health centers where relevant (A.2);
(ii) training of traditional birth attendants (A.3);
(iii) production of ethnic minority handbook for commune and village health staff/workers (C.2); and
(iv) translation of BCC materials into ethnic minority languages where possible (C.2).

ECONOMIC AND FINANCIAL ANALYSES

A. Rationale for Public Investment in Viet Nam's Rural Health Sector

1. Economic Returns

1. There is a strong economic rationale for public investment in the rural health sector. Investment in the health status of people and prevention of diseases in the project area will yield the following economic gains:

(i) Productivity. The project interventions are likely to save at least 1 million healthy life years within 10 years of project completion. Improvements in health status will lead to improved productivity. Data from the 1998 Viet Nam Living Standards Survey show that the economic cost of the number of days lost due to sickness amounts to about 8.7 percent of gross domestic product. If a healthy life year is valued at per capita gross national product, the project interventions will lead to addition of at least $330 million to the national income over 10 years from project completion.

(ii) Savings. Prevention of diseases will result in substantial savings in the direct and opportunity costs of treating the prevented illness. The total private expenditure on health care in the project provinces amounts to about $400 million every year. A 10 percent reduction in sickness will mean a saving of $40 million per annum in the direct cost of health care, and much more if the indirect costs are included.

(iii) Intergenerational benefits. Benefits from the Project go beyond the existing generation, since improvements in the health status of mothers and prevention of HIV/AIDS[1] promise better health for the children. Studies show that a mother's death significantly reduces the survival probability and well-being of the child. The Project interventions are likely to prevent at least 1,000 maternal deaths in 10 years after project completion.

(iv) Healthy children. The project interventions are expected to prevent about 26,000 infant deaths and improve the health status of millions of children during and 10 years after the project period. Better health and nutritional status in childhood leads to better cognitive and learning abilities. Thus the project investments will mean better returns on investment in children. In addition, reduction in infant mortality will also lead to better population planning.

2. Role of the Government

2. The question arises as to why the Government should invest in the proposed services and not leave it to the market forces. There are clearly identified areas of market failures in providing and financing rural health services in Viet Nam. In the absence of public investment, the availability and use of these services will be inadequate. The main economic arguments for a proactive role for the Government are as follows:

(i) Primary health services are mostly public goods or have large externalities and, therefore, will not be adequately provided by the private sector;

[1] human immunodeficiency virus/acquired immunodeficiency syndrome.

(ii) Primary health services are marked by uncertainty and incomplete information leading to low levels of demand and poor supply response from the private sector; and

(iii) Failure of insurance markets puts the cure for catastrophic health conditions, such as delivery complications and accidents, out of the reach of common people, thus necessitating public intervention.

3. **Public Good and Externalities.** Many of the planned interventions such as prevention of food adulteration, and behavior change communication to reduce tobacco use and prevent accidents are public goods. Since these services can be used by anyone without paying, the private sector does not have any incentive to provide them. In the absence of public intervention, such services will simply not exist. Other proposed interventions have large positive externalities, i.e., the social benefits of using these services are far greater than the private benefits. For example, immunization against a communicable disease not only protects the individual but also contributes toward creating herd immunity and breaking the infection transmission chain, and thus protects the entire community. Similarly, improved reproductive health services lead to lower fertility, which may reduce expenditure and encourage higher savings and investments, enhancing the overall standard of living. However, individuals would not take into account these spin-off benefits when deciding to use or provide these services. In the absence of public financing, therefore, the effective demand for and provision of these services are likely to be below the socially optimal levels.

4. **Lack of Information.** Communities and families in rural areas often lack information about the availability of services and the need for using these services. They learn from their own experiences rather than through modern research findings. Lack of information about modern medical practices leads to a poor demand for health services, especially among the poor and disadvantaged. This also results in a poor supply response from the private sector, since it does not consider providing health services in rural areas sufficiently remunerative. Clearly, the Government has a critical role to play in providing information, generating demand and demonstrating benefits from modern medical practices.

5. **Absence of Insurance Markets.** Another type of market failure that affects the health status of people relates to the failure of the rural insurance system. The high cost of emergency care at the tertiary level is a major constraint to utilization of these services in case of emergencies. Faced with such emergency cases, families cannot decide on the timely referral to a tertiary hospital before it is too late. These price constraints potentially affect all but the richest families. Effective risk pooling mechanisms through insurance systems do not exist to prevent increasingly frequent and fatal cases that require emergency and expensive care. The government provision of services is the only alternative in the absence of effective insurance systems in the rural areas.

3. Poverty Reduction

6. Perhaps the most important economic justification for the Project is the equity or want-of-merit rationale. While the *doi moi* policy has expanded economic opportunities for many and has assisted in achieving rapid economic growth, it has not sufficiently benefited certain sections of the population. The poor and people living in remote areas do not have sufficient human capital to benefit from the opportunities created by economic liberalization. While these groups have gained little from these policies, the declining investments in social sectors and introduction of user fees have increased the inequities in access to health services. They have also stretched

the social solidarity of the country to a breaking point. Today, rural people do not have the same access as urban dwellers to either publicly operated or private health services. At the same time, rural dwellers, especially the poor, generally have a lower health status than urban dwellers. Moreover, the inequities in access to health services and health status have in fact widened in the last few years. The Government has initiated several social safety net programs to provide a minimum floor of social services for all persons dwelling in Viet Nam, and, is seeking to rebuild the past strong sense of social solidarity. However, without external assistance, government resources will not be adequate to cover both demand- and supply-side constraints faced by the poor. The Project will assist the government in reducing poverty by improving the access of the poor to health services (a detailed discussion is in Appendix 13).

B. Will the Proposed Project Crowd Out Private Spending?

7. According to the Health Sector Review, health sector private investment has not generally been located in rural areas, especially in the most impoverished areas[2]. Thus, to the extent that the project is targeting its investments to impoverished rural areas, it is not likely to crowd out private spending in the health sector. The majority of the proposed hospital investments will be in rural district facilities. The average rural per capita income is about 55 percent lower than the urban income. So far, only three private hospitals have actually become operational in urban areas in Viet Nam. Thus, the demand for hospital-based care, while growing, has not yet reached the point where private payments can fully support the financial costs of operating a hospital facility, especially in a rural area. A recent study shows that, in Viet Nam, investments in public facilities strengthen the private sector instead of crowding it out. It happens because a large number of public health care providers also work for the private sector. Therefore, improving the skills of the public sector workers through training indirectly improves the quality of private sector services. Increased competition from public sector hospitals encourages the private sector to improve quality.

C. Project Beneficiaries

8. The 13 project provinces have a population of 15 million, of whom 12.7 million live in rural areas. The Project will improve access to quality health services for the rural population, thereby directly or indirectly improving their health status. Beneficiaries will include 3 million women in the reproductive age group, 1.3 million people from ethnic minorities, 6.2 million poor people, 2 million children, and 1.5 million elderly. The Project will benefit about 1.5 million pregnant women and 1.3 million newborn children during the project period. In addition, the project interventions will directly benefit about 800,000 poor people through free health cards.

D. Cost-Effectiveness and Benefit/Cost Assessment of Proposed Project Interventions

9. The cost-effectiveness of project investments was analyzed with alternative scenarios for the flow of benefits and costs. Project benefits and costs are going to accrue well beyond the project period. This analysis takes a time horizon of 20 years, beyond which disease patterns and medical technologies can be assumed to significantly differ from the present situation. Moreover, any net flow from the period after 20 years will have only a very small net present value.

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[2] See Chapter 5, *Health Sector Review,* op. cit., 1999.

10. **Valuation of Benefits.** In this analysis, the project outcomes of health improvements are assessed by quantifying the burden of disease by the number of disability adjusted life years (DALYs) lost due to premature illness, disability, and death. Reductions in the disease burden—the number of DALYs saved during and after the project period—represent a direct estimate of the project impact. The disease burden for Viet Nam for 1999 was estimated based on the recent work of Western Pacific Region of the WHO[3] and the earlier work of C. Murray and A Lopez of WHO/Geneva[4].

11. It was assumed that without the project investments, the current rate of improvement in life expectancy will decline over time to a level about one half the rate experienced over the previous 25 years. This assumption is justified on the basis that earlier investments in the health system and social sectors would have already run their course. With the project investments, three benefit scenarios were investigated.

(i) Low scenario. Since the Project will rehabilitate the old primary health care infrastructure, the rate of increase in life expectancy would equal the previous trend rate. In other words, the past rate of reduction in DALYs will be maintained in the future.

(ii) Moderate Scenario. This scenario assumes that the rate of DALY reduction is 10 percent greater than the previous trend rate.

(iii) High scenario. This scenario assumes that the rate of DALY reduction achieved by the project investments is 30 percent greater than the previous trend rate.

12. **Valuation of Cost.** The costs considered in this analysis include the five-year project capital and recurrent costs, plus an additional 15 years of recurrent costs to continue operating each project component that extends or refurbishes services, or improves service quality or management. While the project capital costs are known, recurrent costs during and after the project period are difficult to estimate with certainity. These recurrent costs will be substantially influenced by the change in utilization pattern of health services after the Project. For the analysis, the relationship between project capital costs and subsequent recurrent costs, as defined by the "r" coefficient, is assumed to be similar to what has occurred in other developing countries. The "r" coefficient has been found to vary between 0.2 and 0.4 in most other countries for the types of investment envisioned in the Project.[5]

13. **Benefit-Cost and Cost-Effectiveness Analyses.** Several benefit-cost and cost-effectiveness analyses were conducted. These were based on the cost and burden of disease (BOD) reduction analyses defined above, assumptions regarding the rate of time preference (or discount rate), and the relationship between capital and subsequent recurrent costs. The results are summarized in Table A15.1.

14. The cost-effectiveness of the project interventions is estimated in the range of $12-$45 per DALY saved depending on the assumption. If the Asian Development Bank project

[3] Taylor, R. and M. Tjhin. 1997. *Estimation of Disease Burdens in Countries of the Western Pacific Region of the WHO.* Sydney: Univ. of New South Wales.

[4] Murray, C. and A. Lopez. 1996. *The Global Burden of Disease.* Cambridge, MA: Harvard Univ. Press.

[5] See analysis summarized in Table 2.3, pg. 24, H. Barnum and J. Kutzin, *Public Hospitals in Developing Countries: Resource Use, Cost, Financing*,(Baltimore: Johns Hopkins Press, 1993), and Peter Heller, "Underfinancing of Recurrent Development Costs", *Finance and Development*, 16, 1(1979)38-41.

guidelines[6] of 3 percent discount rate is used, the cost for one DALY saved is estimated to be between $12 and $24 (second column of Table A15.1). The range of cost-effectiveness ratios found in the analysis is well within the acceptable range considered by the World Bank in its 1993 World Development Report of $20–$30. The second part of Table A15.1 shows that the proposed investment will yield considerably greater returns in terms of economic growth than the attendant costs. At the 3 percent discount rate, the benefits are expected to be greater than the capital and recurrent costs by a factor of 11 to 21. The results suggest that, assessed in its entirety, the project is highly cost-effective relative to most investments not only outside, but also within the health sector.

Table A15.1: Summary of Benefit-Cost and Cost-Effectiveness Analyses

Alternative Scenario	Discount Rate			
	3%	5%	7%	10%
A. Cost Per DALY Saved ($)				
"r" coefficient = 0.2				
Low Scenario	18	21	23	27
Moderate Scenario	16	18	20	23
High Scenario	12	14	15	18
"r" coefficient = 0.3				
Low Scenario	24	26	30	45
Moderate Scenario	20	22	25	38
High Scenario	16	17	19	29
II. Benefit Cost Ratio (Ratio of Discounted DALYs valued at GDP/P)				
"r" coefficient = 0.2				
Low Scenario	14	10	7	5
Moderate Scenario	16	12	8	5
High Scenario	21	15	11	7
"r" coefficient = 0.3				
Low Scenario	11	8	6	4
Moderate Scenario	13	9	7	4
High Scenario	17	12	9	6

DALY = disability adjusted life years.
Source: Staff estimates.

E. Project Sustainability

15. To financially sustain the project activities, the government and communities should be able to provide and allocate the necessary recurrent costs. An analysis was undertaken to assess the recurrent cost implications of the project activities and the capacity of the central and provincial governments and communities for pay for such costs.

[6] Asian Development Bank. 1999. *Handbook for the Economic Analysis of Health Sector Projects*. Rep. RETA 5761. Manila: ADB.

16. **Estimation of Recurrent Costs.** As discussed above, it is difficult to estimate with precision the recurrent costs of facilities planned under the Project. Studies in other countries with similar socioeconomic status have shown that recurrent costs in hospitals are typically 20-40 percent (r-value of 0.2 to 0.4) of the capital costs. Since the project investments relate to primary health care and are located in poor areas of the country, it would be safe to assume that the recurrent costs would be on the lower side of the observed range. Therefore, analysis was undertaken for r-value of 0.2 and 0.3. On these assumptions, the recurrent cost liabilities of the Project after the project period are shown in Table A15.2. The estimates show that the liabilities are relatively low in Tien Giang and high in Hoa Binh.

17. **Financing of Recurrent Costs.** Four main sources for financing the recurrent cost associated with the project investments were considered: (i) out-of-pocket expenditure through user charges, (ii) health insurance, (iii) free health cards, and (iv) government budgets. Trend data from 1992-1997 was used to predict the value of available resources during and after the project period. The revenue from the various sources was estimated as follows:

(i) User charges. Revenue from user charges increased at a compounded rate of 14 percent from 1991 to 1994 and at a rate of 40 percent between 1994 and 1997. It accounts for more than a third of total hospital expenditure. It was assumed that user charges would continue to provide one third of the operating costs of the upgraded hospitals.

(ii) Health insurance. Hospitals revenue from health insurance reimbursements increased by an annual rate of more than 30 percent during 1994 and 1998. It was assumed that these revenues would continue to grow by 20 percent in the next 10 years. The assumption of reduced growth in reimbursement revenue is based on the belief that enrollment of new members will not grow at the same rate as before due to market saturation.

(iii) Free health cards. The new scheme of free health cards for the poor will provide additional funds for the health system. It was assumed that the entire subsidy of D30,000 per person would be used by the health system. This is plausible since the average per capita reimbursement of the usual health insurance scheme is more than D50,000.

(iv) Government budget. It was assumed that government budgets would continue to increase by an annual rate of 3 percent in real terms over the next 10 years. Since the rate of increase has been more than 3 percent in the last few years, this assumption is on the conservative side.

18. Analysis shows that the Government has the capacity to sustain the project investments beyond the project period. From the above projections, the recurrent cost estimates for r = 0.2 would constitute less than 1 percent of provincial GDP in all provinces and 3-10 percent of the health budget. Since the facilities to be upgraded under the Project cover about 90 percent of the population, allocation of these budget amounts for maintaining the facilities would be justified. Moreover, if we assume that the health budgets will grow by more than 3 percent, which is a likely scenario, the proportion of the budget required to be allocated to sustain the project inputs would be even less. Even with r =0.3, the recurrent cost liabilities range from 5 to 15 percent, which is clearly affordable. However, the recurrent cost implications in Binh Phuoc and Hoa Binh are clearly much higher than in the other provinces. The two are among the poorest provinces and have relatively weaker health infrastructure. Therefore, special attention

would need to be paid to ensuring that government budgets adequately increased in these provinces to support the project inputs.

Table A15.2: Recurrent Cost of the Project

Project Province	Recurrent Cost Liabilities in 2006 (D per Capita)		Recurrent Cost Liabilities After Cost Recovery (D per Capita)		Share of GDP (percent)		Share of Health Budget (percent)	
	r = 0.2	r = 0.3	r = 0.2	r = 0.3	r = 0.2	r = 0.3	r = 0.2	r = 0.3
Hoa Binh	13,640	20460	9,548	14,322	0.39	0.59	10	15
Phu Tho	7,645	11,468	5,352	8,028	0.19	0.28	5	8
Vinh Phuc	8,317	12,475	5,822	8,732	0.22	0.33	6	10
Quang Ninh	8,319	12,478	5,823	8,735	0.12	0.18	5	7
Ninh Binh	9,847	14,770	6,893	10,339	0.27	0.40	6	10
Quang Binh	8,424	12,637	5,897	8,846	0.24	0.36	6	9
Quang Ngai	6,148	9,222	4,303	6,455	0.17	0.26	5	7
Khanh Hoa	7,362	11,043	5,153	7,730	0.10	0.14	5	8
Binh Phuoc	12,085	18,128	8,460	12,689	0.28	0.42	10	15
Long An	6,375	9,562	4,462	6,694	0.09	0.13	5	7
Tien Giang	4,580	6,870	3,206	4,809	0.08	0.11	3	5
Ben Tre	7,070	10,605	4,949	7,424	0.13	0.20	6	8
Can Tho	4,891	7,337	3,424	5,136	0.07	0.11	4	6