Technical Assistance Report

Project Number: 40255
Capacity Development Technical Assistance (CDTA)
April 2011

Socialist Republic of Viet Nam: Central Mekong Delta Region Connectivity Technical Assistance Project (Financed by the Government of Australia)

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 11 April 2011)

Currency Unit	–	dong (D)
D1.00	=	$0.00005
$1.00	=	D20,913

ABBREVIATIONS

ADB	–	Asian Development Bank
HCMC	–	Ho Chi Minh City
km	–	kilometer
m	–	meter
MOT	–	Ministry of Transport
PCC	–	project coordinating committee
PMU-MT	–	project management unit-My Thuan
SAP	–	social action plan
SSH	–	Second Southern Highway
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Capacity development technical assistance (CDTA)
Targeting classification	–	General intervention
Sector (subsector)	–	Transport, and information and communication technology (road transport)
Theme (subtheme)	–	**Economic growth** (widening access to markets and economic opportunities)
Climate change	–	Adaptation
Location impact	–	Regional (medium), national (high)
Partnerships	–	The Government of Australia

NOTE

In this report, "$" refers to US dollars.

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VIET NAM

CENTRAL MEKONG DELTA REGION CONNECTIVITY TECHNICAL ASSISTANCE PROJECT

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I. INTRODUCTION

1. The proposed Central Mekong Delta Region Connectivity Technical Assistance Project[1] will assist the Government of Viet Nam in preparing detailed designs for and support implementation of the ensuing Central Mekong Delta Region Connectivity Project (the investment project). The Government of Australia confirmed its intention to finance the technical assistance (TA) by its letter dated 11 November 2010, and requested the Asian Development Bank (ADB) to administer the funds. The design and monitoring framework is in Appendix 1.

2. The investment project is in the Mekong Delta region of southern Viet Nam. It will improve transport services across and within the central Mekong Delta region by constructing a section of the Second Southern Highway (SSH) that the government is developing to connect Ho Chi Minh City (HCMC) with the isolated southwestern region of the Mekong Delta. A summary of the investment project is available on request.

II. ISSUES

3. The Mekong Delta is the third largest industrial center in Viet Nam after HCMC and Ha Noi, and its economy relies mainly on agro-industry and other light industries. It is also known as the "rice basket" of Viet Nam and contributes significantly to Viet Nam's record rice exports, making the country among the world's top three rice exporters.[2] However, poor infrastructure and natural calamities limit growth, and poverty in the more remote areas of the Mekong Delta remains high.

4. While the Mekong Delta has an extensive inland waterway network that operates effectively, based on the Mekong River, it is best suited for bulk agricultural products and similar commodities. The road network is in early stages of development and is constrained by poor connections, narrow pavements, and frequent waterway crossings. The absence of a reliable road network in the Mekong Delta is a significant constraint to attracting higher-value agricultural and industrial investments that would lead to an increase in economic activity. The growing demand for an efficient transport network prompted the government to set targets in its proposed 5-year Transport Development Plan 2011–2015[3] to transport 796 million tons or 64.2 billion ton-kilometers (km) of goods and 3.15 billion passengers or 106.6 billion passenger-km per year by road alone. To achieve this, the 5-year plan aims to build, improve, and upgrade about 3,000 km of roads and 44,600 meters (m) of road bridges. National Highway 1A, which runs the length of Viet Nam from north to south, is the only artery that gives uninterrupted road access to Viet Nam's southern coastal region, and this is only to the eastern side. Reliance on a single artery constrains balanced development of a reliable primary road network for the Mekong Delta; such network would facilitate efficient land use with integrated development of secondary roads and other infrastructure.

5. The government has launched an expressway development plan[4] that identifies the SSH as a key artery for development of the Mekong Delta. The SSH connects HCMC through the Mekong Delta to the southern coastal region and serves as an alternative to National Highway 1A. It also provides access to the Mekong Delta's southwestern provinces, and connects to the Greater Mekong Subregion Southern Coastal Corridor at Rach Gia. The SSH is currently interrupted by ferry crossings at Cao Lanh and Vam Cong, which are slow and cause delays to traffic.

6. The government plans to remove the bottlenecks caused by slow ferry operations and, more generally, improve connectivity in the Mekong Delta by constructing a section of the SSH

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[1] The TA first appeared in the business opportunities section of ADB's website on 6 October 2010.
[2] International Rice Research Institute, World Rice Statistics. http://beta.irri.org/index.php/Social-Sciences-Division/SSD-Database/
[3] Government approval is expected in 2011 as part of its Five-Year Socio-Economic Development Plan 2011–2015.
[4] Decision 1734/QD-TTg, Approval of Viet Nam's Expressways Development Plan up to 2020 and beyond.

between Cao Lanh (on the northern bank of the Tien branch of the Mekong River) and Long Xuyen (on the southern bank of the Hau branch). This section will consist of: (i) component 1: Cao Lanh Bridge (2.1 km) and approach roads (5.7 km); (ii) component 2: interconnecting road (15.7 km); (iii) component 3: (a) Vam Cong Bridge (2.9 km), and (b) approach roads (2.9 km); (iv) component 4: Long Xuyen Bypass (17.5 km); (v) component 5: Long Xuyen Bypass extension (5.7 km); and (vi) component 6: My An–Cao Lanh connecting road (26.9 km).

7. The investment project will comprise components 1–3. The government intends to construct components 4–6 as part of a future project. The governments of Australia and of the Republic of Korea are expected to cofinance the investment project.

8. ADB's strategy for Viet Nam[5] focuses on helping the government reduce poverty incidence to 10%–11% by 2010. In the transport sector, ADB assists the government improve its transport investment program, increase sector efficiency, and reduce transport costs. The investment project is firmly supported by the government and included in its 5-year plan, as well as in ADB's country operations business plan 2009–2011 for Viet Nam.[6]

9. The investment project is expected to bring inclusive development to areas that are poorly connected to major population centers, improve access to basic social and health services, increase national food security by stimulating local agro-industry and boosting exports, facilitate private sector investment, and extend regional connectivity to neighboring Cambodia and the Greater Mekong Subregion, as well as to Viet Nam's major inland ports in the Mekong Delta. An estimated 170,000 road users will benefit daily from the investment project and the 5 million residents of An Giang, Can Tho, and Dong Thap provinces will benefit from an improvement in living standards.

10. Climate change has the potential to exacerbate the risk associated with large infrastructure projects within their lifespan. The Mekong Delta has been identified as one of the world's most vulnerable regions to climate change. Predicted changes to the climate of the delta could increase both the magnitude and frequency of floods and storms and induce greater seasonal variability in weather patterns. This increases the risk and potentially reduces the design life of large infrastructure works. To mitigate such risk, climate proofing of the infrastructure to be financed by the investment project is necessary.

11. **Rationale for the technical assistance.** The project preparatory TA for the investment project[7] concluded that, with a 16% economic rate of return, the investment project and this TA are viable investments. This TA meets two fundamental project needs: (i) preparing detailed designs and bidding documents for the portion of the investment project that ADB and the Government of Australia are considering financing, and (ii) ensuring the early availability of social and environmental planning documents for implementation of the investment project. This is particularly important for the investment project because comprehensive project readiness will: (i) reduce project start-up delays and speed up implementation of the investment project; (ii) respond to the government's target for construction and commissioning of the investment project during 2011–2016; (iii) reduce the government's loan servicing cost on the ADB loan for the investment project; and (iv) include construction supervision services and capacity building support, which are critical for the successful implementation of the investment project.

[5] ADB. 2006. *Country Strategy and Program: Viet Nam, 2007–2010.* Manila.
[6] ADB. (2009). *Country Operations Business Plan: Viet Nam, 2009–2011.* Manila. The investment project first appeared in the business opportunities section of ADB's website on 17 September 2010.
[7] ADB. 2007. *Technical Assistance to the Socialist Republic of Viet Nam for Preparing the Central Mekong Delta Region Connectivity Project*. Manila (TA 7045-VIE).

12. Construction supervision would usually be part of the investment project; however, its inclusion under the scope of the TA is essential for ensuring efficient implementation of a technically complex project, which involves construction of two large, cable-stayed bridges. The bridges, each of which will cost about $250 million, will have 350-meter and 450-meter main spans, 120-meter high towers, and support a six-lane roadway more than 50 meters above a major international waterway, the Mekong River. The bridges will be constructed on main foundations that extend 100 meters below the river bed. For bridges of this scale and complexity, the designers' supervision of construction is critical; the structures' technical designs and bridge erection methods will have to be continually monitored and adjusted as erection loadings change. Without such continuity, from design to supervision, the risk of construction delays, litigation, and major design and construction errors is significant, which may lead to structure's failure. This approach has been discussed with the government and with transport professionals, and the conclusion is that continuity of design and supervision is essential for the successful implementation of the investment project.

III. THE PROPOSED TECHNICAL ASSISTANCE

A. Impact and Outcome

13. The impact of the TA will be improved and sustainable road transport connectivity across and within the central Mekong Delta region. Its outcome will be the satisfactory implementation of the investment project, according to designs and plans acceptable to the government, ADB, and the cofinanciers.

B. Methodology and Key Activities

14. The TA will achieve its outcome through consulting services. Part A services will include preparing detailed designs and bidding documents, updating safeguards and social action plans, and assisting with procurement of civil works[8] for the Cao Lanh Bridge and approach roads (component 1), interconnecting road (component 2), and approach roads for the Vam Cong Bridge (component 3b)[9]. Part B services will include supporting implementation of the investment project (subject to ADB and the Government of Australia financing), which will include construction supervision for the components mentioned above, assisting implementation of safeguards and social action plans (including for component 3a to be financed by the Government of the Republic of Korea), and monitoring project benefits and impacts.

15. Parts A and B both include capacity building activities in areas such as engineering, procurement and contract management, benefits monitoring and evaluation, implementing social and environmental safeguards, asset management, toll operations, and climate proofing. Individual capacity building activities in these areas will be designed during implementation of the TA and included in the terms of reference for consultants. The Government of Australia will also separately finance the preparation and implementation of a project anticorruption action plan.

16. The social impact assessment, prepared as part of the project preparatory TA for the investment project, identified potential adverse social impacts to include: (i) land acquisition and resettlement, (ii) loss of livelihoods associated with ferry traffic and changed traffic flow, (iii) reduced access to local roads once the highway and bridges are constructed, (iv) traffic accidents, and (v) increased risk of HIV infection and human trafficking. Based on the assessment, a social action plan (SAP) was prepared to ensure that social benefits are maximized and adverse impacts are mitigated, if not avoided. Gender issues have been mainstreamed as part of the SAP

[8] Up to but not including signing of civil works contracts.
[9] Component 3A: Vam Cong Bridge and approach bridges will be financed by the Government of the Republic of Korea through a parallel-tied loan from the Korean EximBank that will include detailed design, procurement assistance, and construction supervision.

(Appendix 2). The estimated cost of implementing the SAP is $1.2 million and will be financed by the TA.

17. **Climate proofing.** The ongoing study on Climate Change Adaptation in Asia and the Pacific[10] will (i) assess the potential threats posed by climate change to the investment project, (ii) estimate the vulnerability of the project design, (iii) estimate possible damage to infrastructure in the case of no adaptation action, (iv) propose and prioritize adaptation options to mitigate climate risks, and (v) estimate the incremental cost of those options. Consultants under this TA will then incorporate climate change impacts and mitigation measures into the detailed designs.

18. **Assumptions and risks.** To achieve the desired outcome, the TA assumes timely approval of the detailed designs and bidding documents, that compensation and mitigation measures are agreed to by the affected people, and civil works are procured and implemented on time and in strict adherence to ADB's Procurement Guidelines (2010, as amended from time to time), Safeguard Policy Statement (2009), and Anticorruption Policy (1998, as amended to date). The risks associated with the TA have been internalized as part of the TA design and will be addressed the following ways:

(i) Potential delays in the consultant selection process are mitigated through the government's agreement for ADB to select the consultant through advance contracting.
(ii) Substandard design and poor performance of the consultant are mitigated by incorporating review of designs by an independent proof-check consultant, and inclusion of relevant criteria in the consultant selection process to ensure that only consultants with previous experience of preparing and executing similar projects successfully in similar environments are eligible to participate.
(iii) Satisfactory completion of detailed designs (part A) is a precondition for issuing the consultant with a notice to proceed with construction supervision (part B).

C. Cost and Financing

19. The $26 million TA will be financed entirely by the Government of Australia on a grant basis. ADB will administer the grant. The cost estimates and financing plan are in Appendix 3. The government has been informed that approval of the administration of the TA grant does not commit ADB or the Government of Australia to finance any ensuing project.

D. Implementation Arrangements

20. Implementation of the TA will be partially delegated to the government. The executing agency for the TA will be the Ministry of Transport (MOT). The project management unit-My Thuan (PMU-MT) under the MOT will be the implementing agency and will be responsible for the direct supervision and day-to-day implementation of the TA. The capacity of the PMU-MT was found to be satisfactory to implement this TA (capacity assessment report is available on request).

21. Overall direction and management of the TA and the investment project will be provided through the project coordinating committee (PCC). The PCC will be responsible for ensuring coordination across all aspects of the project's implementation, for resolving technical and contractual issues as they arise, and for monitoring implementation of the project's safeguard programs, in particular programs for addressing involuntary resettlement and environmental impact mitigation. The PCC will meet quarterly, with at least two meetings per year scheduled to coincide with joint cofinanciers' review missions.

[10] ADB. 2007. *Technical Assistance for Promoting Climate Change Adaptation in Asia and the Pacific*. Manila.

22. The PCC will be chaired by the vice-minister for transport responsible for the project. PCC members will include representatives of the confinanciers, representatives of the provinces within the project area, and representatives of central government ministries and agencies. The PMU-MT will act as the PCC secretariat in coordination with relevant departments in the MOT. The secretariat will—with design and supervision consultant's assistance—prepare and distribute agendas for meetings, arrange meeting logistics, prepare and circulate minutes, and monitor agreements and decisions reached at the meetings. This consultant will be invited to the PCC meetings by the PMU-MT as required. Detailed operational procedures for the PCC will be jointly prepared at the TA inception.

23. A consulting firm for services under both part A and part B (para. 14) will be recruited under a single contract (with a second notice to proceed for part B services) subject to (i) satisfactory completion of the detailed designs (part A), and (ii) ADB, the Government of Australia, and the Government of the Republic of Korea approving their financing for the investment project. For the reasons indicated in para. 11, the government agreed that ADB, in consultation with the government, will select all consulting services under the TA and disburse funds to the consultants on the government's request. The government (through the MOT) will negotiate with the first-ranked firm, and afterwards sign and implement the consulting services contract.[11] ADB will administer the disbursement of the grant according to ADB's *Loan Disbursement Handbook* (2007, as amended from time to time).

24. The TA will require 370 person-months of international consulting services and 1,627 person-months of national consulting services. The expected implementation period is June 2011–December 2016. The consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2010, as amended from time to time).[12] The TA is complex and requires a high standard of technical qualification from the consultants. Therefore, international consulting firm(s) in association with national consulting firm(s) will be engaged using the quality- and cost-based selection method with a quality–cost ratio of 90:10 and a full technical proposal. Consulting contracts will be on a partial lump sum basis: a lump sum for design and procurement assistance (Part A), and time-based for implementation support (Part B). The outline terms of reference for consulting services are in Appendix 4. In addition, the TA will require 16 person-months of individual consultant services for proof-checking the Cao Lanh Bridge designs prepared by the consulting firm. The PMU-MT will recruit these consultants using the individual consultant selection method. ADB's Procurement Guidelines will be applicable in any procurement activities to be financed under the TA. Upon completion, all assets purchased under the TA will be turned over to the MOT.

IV. THE PRESIDENT'S RECOMMENDATION

25. The President recommends that the Board approve ADB administering technical assistance not exceeding the equivalent of $26,000,000 to the Government of Viet Nam to be financed on a grant basis by the Government of Australia for the Central Mekong Delta Region Connectivity Technical Assistance Project.

[11] The government confirmed this arrangement in the fact-finding mission's memorandum of understanding signed on 30 September 2010.

[12] Checklists for actions required to contract consultants are available in the e-Handbook on Project Implementation: http://www.adb.org/documents/handbooks/project-implementation/

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved and sustainable road transport connectivity across and within the central Mekong Delta region	Travel time from Cao Lanh to Long Xuyen reduced from 1–1.5 hours in 2010 to 30 minutes by 2017 Travel distance from Cao Lanh to Long Xuyen reduced from 35.4 km in 2010 to 28.75 km by 2017 Revenues fully cover project operation and maintenance costs by 2017 and consistently exceed these requirements thereafter	PMU-MT's project performance monitoring report PMU-MT's project completion report MOT's toll revenue and operations and maintenance accounts	**Assumptions** Parts of the Second Southern Highway, Greater Mekong Subregion Southern Coastal Corridor, and future expansion of the project road are completed as planned The toll system is efficiently operated **Risk** Toll charges too low to cover operation and maintenance after traffic builds up
Outcome Satisfactory implementation of the investment project according to designs and plans acceptable to the government, ADB, and the cofinanciers	Investment project completed on time and within budget with cumulative time and cost overruns no more than 10% Design and plans implemented by December 2016 as agreed without major changes or deviations	PMU-MT's project progress and completion reports PMU-MT's project progress and completion reports	**Assumption** All financing agreements for the investment project are in place and effective to the satisfaction of ADB **Risk** Delays in procurement of civil works
Outputs 1. Agreed detailed designs and bidding documents	Detailed designs proof-checked and agreed by the government, ADB, and cofinanciers by June 2012 Agreed bidding documents available by June 2012	Proof-check consultant's endorsement and the government's approval of detailed designs ADB's approval of bidding documents	**Assumptions** Timely approvals of the detailed designs and bidding documents by the government
2. Updated and agreed safeguards and social action plans	Resettlement plans and environmental management plan updated and agreed for implementation before June 2012 Social action plan updated and agreed for implementation before June 2012	ADB's approval of resettlement plans and environmental management plan ADB's approval of social action plan	Compensation and mitigation measures agreed to by the affected people and communities

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	Performance monitoring framework and baseline indicators set 2 months prior to start of construction activities Midterm evaluation done 24 months after and at construction completion	ADB's approval of performance monitoring framework and subsequent approval of evaluation reports	
3. Timely procurement of civil works	Prequalification of bidders completed within 12 months of TA start Civil works awarded within 6 months from the date of invitation of bids	ADB's approval of prequalified bidders ADB's approval of contract award	Works procured in a timely manner by the government in strict adherence to ADB's Procurement Guidelines (2010, as amended from time to time) and Anticorruption Policy (1998, as amended to date)
4. Efficient implementation support for the investment project	Construction supervision services start within 18 months of TA start and completed satisfactorily 48 months thereafter Resettlement plans implemented satisfactorily within 16 months of TA start Implementation of environmental management plan and social action plan monitored quarterly and adverse impacts mitigated satisfactorily Capacity of PMU-MT is strengthened to procure contracts and manage construction and operation of the investment project after completion	PMU-MT's project progress and completion reports and ADB's PCR PMU-MT's resettlement plan completion report PMU-MT's project progress and completion reports and ADB's PCR ADB's PCR	Works implemented in a timely manner and in strict adherence to ADB's Safeguard Policy Statement (2009) and Anticorruption Policy

Activities with Milestones

1. Detailed designs and bidding documents

1.1 Consulting firm recruited by June 2011

1.2 Detailed designs and bidding documents completed by June 2012

Inputs

Government of Australia: $26 million grant

Item	**Amount** ($'000)
Detailed design and procurement support	9,694.00
Implementation support	11,432.90
Contingencies	4.873.10

Activities with Milestones **2. Safeguards and social action plans** 2.1 Safeguards and social action plans updated and agreed by August 2012 2.2 Benefits monitoring framework and baseline indicators agreed by January 2013	
3. Procurement support 3.1 Prequalification documents completed by January 2012 3.2 Prequalification of bidders starts in January 2012 and completed by May 2012 3.3 Bids for civil works invited by June 2012 3.4 Contracts awarded by January 2013	
4. Implementation support 4.1 Second notice to proceed with the construction supervision part of the consulting services issued by September 2012 4.2 Agreed resettlement plans implemented by January 2013 4.3 Construction supervision activities completed by December 2016 4.4 Social action plan implemented concurrently with construction supervision activities 4.5 Compliance with environmental management plans monitored during the construction activities 4.6 Midterm performance monitoring completed by December 2014 4.7 Project completion and final performance monitoring reports completed by December 2016	

ADB = Asian Development Bank, km = kilometer, MOT = Ministry of Transport, PCR = project completion report, PMU-MT = project management unit-My Thuan, TA = technical assistance.
Sources: Asian Development Bank and the Government of Australia.

DRAFT SOCIAL ACTION PLAN

A. Background

1. Project Description

1. The Central Mekong Delta Region Connectivity Project aims to promote sustained and equitable economic development by constructing high class transport infrastructure crossing the Mekong Delta provinces of Dong Thap and Can Tho. The infrastructure proposed consists of two bridges to span the Tien and Hau branches of the Mekong River and approximately 15 kilometers of interconnecting road. The proposed project forms part of the Second Southern Highway (SSH), which connects Ho Chi Minh City (HCMC) through the central Mekong Delta region to the southern coastal region, where it joins the Greater Mekong Subregion Southern Coastal Corridor at Rach Gia. The SSH crosses the Tien branch of the Mekong River at Cao Lanh, and the Hau branch at Vam Cong. The Government of Viet Nam intends to collect road tolls at the proposed new bridge crossings to help meet the cost of constructing and maintaining the bridges.

2. Viet Nam is experiencing rapid economic growth, based primarily on export processing industries and tourism. Between 2003 and 2010, gross domestic product grew by an average of 7% per year, while exports in the same period grew by an average of about 20%. The Mekong Delta region is the third largest industrial center in Viet Nam after HCMC and Ha Noi, and is based primarily on agro-industry and other light industries. Road traffic is growing rapidly in Viet Nam and a key constraint to future development is the availability of efficient transport infrastructure with adequate capacity to meet expanding demand. Between 2000 and 2009, passenger traffic grew at an average rate of about 12% per year and freight traffic at an average rate of about 16%. The government is rapidly upgrading and expanding Viet Nam's strategic transport infrastructure—especially highways, railways, and ports—to support sustained economic growth.

2. Poverty

3. The population of Viet Nam is about 86 million, of which 50.48% are women. About 60.6 million people (70.4% of the population) live in rural areas. During the past 20 years, the government's liberalization policy (*Doi Moi*) has led to greater economic activity with a consequent rise of incomes and reduction in poverty levels. The government estimated the percentage of poor households to be 15.5% nationwide in 2006, down from 18.1% in 2004. This downward trend was reflected in both rural and urban areas.[1] The current official poverty line is based on an average monthly per capita income of D250,000 for rural areas and D290,000 for urban areas. Poverty is not distributed evenly throughout Viet Nam. The incidence of poverty is highest in the northeast and northwest, the upland areas of the north central coast and the northern part of the central highlands. However, these areas tend to be sparsely populated. The highest numbers of poor households are located in the more densely populated areas of the Red River and Mekong River Deltas. The lowest poverty rates are found in HCMC, Ha Noi, and the southeastern region (Ba Ria-Vung Tau, Binh Duong, and Dong Nai provinces).[2] Nationwide, poverty rates for rural areas are primarily associated with agro-climatic and market access variables. Poverty rates are higher in areas with mountains, poor soil conditions (rocky, sandy,

[1] Government Statistics Office. 2006. *Results of the Survey of Household Living Standards*. Viet Nam.
[2] N. Minot, B. Baulch, and M. Epprecht. 2006. *Poverty and Inequality in Vietnam: Spatial Patterns and Geographic Determinants*. International Food Policy Research Institute for Development Studies, Research Report Abstract No. 148. http://www.ifpri.org/sites/default/files/publications/ab148.pdf

saline, acid sulfate) and far from towns. Conversely, flat land and high road density are positively associated with lower poverty rates throughout Viet Nam. Despite the general low-income levels and variation in poverty rates across Viet Nam, the level of inequality is relatively low compared to other developing countries (footnote 2).

3. Indigenous Peoples

4. The main indigenous ethnic minority in the Mekong Delta is the Khmer. According to the Government Statistics Office about 1.05 million Khmer people live in the Mekong Delta, accounting for 6% of the total population of the area. The Khmer live in eight provinces, namely Tra Vinh (30% of the province's total population), Soc Trang (29%), Kien Giang (13%), An Giang, and smaller numbers in Bac Lieu, Ca Mau, Can Tho, and Vinh Long. The project area has very small numbers of ethnic Khmer. In the Can Tho project area, ethnic Khmer households comprise less than 1%[3] of the population and are integrated with the ethnic majority Kinh (Vietnamese) population. No ethnic Khmer live in the Dong Thap Province project areas.

4. Gender Profile

5. Women comprise 51% of the population in the project area. Overall, women education attainment levels are lower than those of men. However, the education equity gap is closing for the younger generation. Education attainment levels are almost equal for men and women under the age of 35 years. These trends are reflected in the workforce, with women being underrepresented in semiskilled and skilled occupations. Women's participation in paid work is lower than that of men. Women tend to be more involved in the informal sector such as in small-scale trading and unskilled work (such as casual labor), lacking security of continuous employment.

5. Social Action Plan

6. This social action plan (SAP) was prepared under the project preparatory technical assistance to ensure that social benefits are maximized and adverse impacts are mitigated, if not avoided. Gender issues have been mainstreamed as part of the SAP. This SAP has been prepared in accordance with the Safeguard Policy Statement (2009) and Policy on Gender and Development (1998) of the Asian Development Bank (ADB).

B. Social Impact Assessment

7. A social impact assessment conducted under the project preparatory technical assistance was based on primary sources including household surveys, in-depth interviews, key informant interviews, and focus group discussions, as well as research of secondary sources (such as government statistics, reports, and other studies). The social impact assessment identifies potential benefits, as well as negative impacts and the risks posed by the investment project. It also proposes mitigation measures to address the negative impacts and enhance benefit distribution. The impacts and associated mitigation measures are summarized in this SAP.

1. Project Benefits

8. The investment project is expected to have an overall positive impact on transportation and mobility by connecting HCMC and the central Mekong Delta region with a high class road

[3] The largest number is in Thoi Thuan Ward, with 0.4% of the population.

system saving both time and transportation costs. Within the project area itself, the investment project is expected to provide opportunities over the long term for developments in agriculture and industry by improving market access, as well as improving access to services and employment for the general population.

2. Benefits for Women

9. The investment project is expected to produce benefits for women in the form of increased opportunities for employment, which are expected to result from economic development in the general area of the project. Benefits will be enhanced through improved access to services and reduced travel time.

3. Project Adverse Impacts

10. **Land acquisition and resettlement.** An estimated 110 hectares of land will be acquired for the investment project, affecting approximately 1,300 households and businesses. Approximately 560 households are expected to be required to relocate.

11. **Livelihoods associated with ferry traffic and changed traffic flow.** The increased flow of traffic that the investment project will bring will have a negative impact on livelihoods that are reliant on existing traffic. In particular, 125 businesses and 520 other service providers (hawkers, mobile vendors, and motorbike taxis) in the immediate vicinity of the ferry terminals at Cao Lanh and Vam Cong will be affected.

12. **Access and mobility.** The project road and interchanges will (to varying degrees) form barriers for cross-movement of local communities through which the roads pass. Such a barrier effect can inhibit access to essential services (schools, medical services), markets, and livelihoods, as well as severely disrupt social networks. These impacts will be mitigated by constructing road underpasses.

13. **Affordability.** The project road and bridge system will require payment of tolls by users. According to current plans the toll fees are expected to be no more—and most likely less—than the existing ferry ticket costs and no toll fees will be applied to motorbike traffic. As such, no negative impact is expected associated with affordability of use of the project facilities.

14. **Road safety.** The investment project is designed to be constructed to expressway standards, allowing for vehicle speeds of up to 80 kilometers per hour for mixed traffic. A very significant increase in traffic flow is expected. This creates associated risks of traffic accidents and potential risks to people who might venture on to the road. A road safety activities have been built into the investment project's design at both preparatory and detailed design phases. The current design also includes physical barriers to inhibit pedestrian access.

15. **HIV and human trafficking.** The construction phase of the project presents increased risks of HIV infection to local communities, construction workers, and mobile populations. Construction workers will be concentrated in a number of locations (including construction camps) during the construction of the investment project. The vast majority are expected to be unaccompanied men away from their families and communities for extended periods. An associated increase in the presence of sex workers and other mobile populations is also expected during this phase. Several aspects of the project—especially land acquisition, resettlement, and changed traffic flow—could adversely affect or present significant risks to livelihoods and household living standards, causing social dislocation. If such impacts are not

mitigated, women and children could face significantly increased risks of trafficking and exploitation.

16. **Women.** Development projects can affect men and women differently. Women are more vulnerable to hardship due to loss of economic and social base caused by land acquisition, relocation, and loss of livelihood. In addition, women will also face other social risks, such as HIV infection and human trafficking, due to the influx of workers during construction and afterwards.

17. **Labor.** The Vietnam Labor Code and International Labour Organization treaties [4] prescribe minimum standards for working conditions (including requirements for occupational health and safety) and remuneration, as well as the prohibition of child labor and gender-based discrimination in the workplace.

18. **Indigenous peoples.** A small number of ethnic Khmer households live in the project area, in Thot Not District of Can Tho City. These households tend to be land-poor and reliant on casual labor for income. No indigenous people in the project area are affected by land acquisition and resettlement, nor are their livelihoods negatively affected. Ethnic Khmer households in the project area could potentially benefit from project-related employment.

C. Other Implementation Issues

1. Consistency of Application of Safeguards

19. The safeguard measures included in the project are aimed at mitigating negative impacts on people in the project area. The investment project will be funded by ADB, the Australian Agency for International Development, and the Government of the Republic of Korea. Inconsistent application of ADB's Safeguard Policy Statement across the different project components could contribute to confusion among the local authorities and community members. To avoid this, all financiers agreed to follow ADB's Safeguard Policy Statement.

2. Poor Communication and Information Dissemination

20. The uncertainty of the timing of the investment project and thus the inability of communities to plan in a structured way for these events is a major risk. Poor communication can exacerbate the vulnerability of those already marginalized and limit their ability to mitigate negative impacts. To reduce this risk, coordination and communication will be ensured by the project coordinating committee, which will be represented by the provincial people's committee in project provinces.

[4] Along with the United Nations Convention on the Elimination of All Forms of Discrimination Against Women, the Convention on the Rights of the Child, and Vietnam's Law on Gender Equity.

Table A2.1: Social Action Plan Framework

Issues	Action Required	Responsible Agencies	Timing	Cost Estimates	Notes
Land acquisition and resettlement Adverse impact: Significant	Resettlement plans prepared for the investment project and agreed between ADB and the Government of Viet Nam	PMU-MT will be responsible for updating and implementing the resettlement plans with the concerned provincial authorities and departments (DOLISA, Women's Union) Project supervision consultants will assist in finalization and implementation of the resettlement plans	2012–	$54,189,149	See resettlement plans Resettlement plans are subject to updating following detailed design
Livelihoods associated with ferry traffic and changed traffic flow Adverse impact: Significant	Income restoration strategy for affected persons and businesses	PMU-MT will coordinate the development and implementation of the program with the concerned provincial authorities and departments	2014–	$330,000	To be prepared during project implementation
Access and mobility Adverse impact: Significant	Improvement of local road networks in the project area and inclusion of crossings (bridges and underpasses) during the detailed design phase of the project. The design of local road systems and crossings to be based on detailed needs assessment of local communities	PMU-MT to coordinate with PPC and DOT to conduct detailed assessment of local movement needs within the project area and produce designs for engineering measures (local roads and crossings)	2011–	To be costed at detailed design	To be prepared during project implementation
Affordability Adverse impact: None	Toll fees will not to be higher than ferry user fees		2016–	None	
Road safety Adverse impact: Significant	Road safety audit to be undertaken during detailed design	PMU-MT will coordinate the development and implementation of the program with the provincial authorities and departments concerned	2011–2017	To be costed at detailed design	To be prepared during project implementation

Issues	Action Required	Responsible Agencies	Timing	Cost Estimates	Notes
Risk of HIV and human trafficking Adverse impact: Significant	An HIV and human trafficking awareness and prevention program will be prepared and implemented HIV awareness and prevention measures to be included in the contractors' contracts	PMU-MT will coordinate the development and implementation of the program with the provincial authorities and departments concerned The project supervision consultant will subcontract a qualified service provider	2011–2016	$600,000 not including contractor's awareness and prevention activities	See HIV and human trafficking prevention strategy
Women Adverse impact: Significant	Gender concerns are to be mainstreamed in all project activities (resettlement plans, HIV and human trafficking awareness and prevention program, income restoration strategy, road safety, labor issues, and communication plan	PMU-MT will coordinate the development and implementation of various activities with the concerned provincial authorities and departments, and other locally based organizations Project supervision consultants to include international and local gender specialists	2011–2016	$130,000	To be prepared during project implementation
Labor Adverse impact: Limited	Contractors' contracts to include conditions to ensure occupational health and safety; do not differentiate payment between women and men, and those who belong to local ethnic Khmer groups, for work of equal value; prevent use of child labor; and comply with the government's labor laws and related international treaty obligations	PMU-MT and project supervision consultants include appropriate contract terms Can Tho and Thot Not people's committees to ensure equal employment opportunity for Khmer households	2012–2016	None	
Indigenous peoples Adverse impact: None	No action required; already included under labor	PMU-MT and project supervision consultants include appropriate contract terms	2012–2016	None	

Issues	Action Required	Responsible Agencies	Timing	Cost Estimates	Notes
Poor communication and information dissemination Adverse impact: Significant	A communication plan will be prepared	PMU-MT and project supervision consultants	2011–2016	To be costed at detailed design	To be prepared during project implementation
Consistent application of safeguards	Adoption of common ADB safeguard policies and requirements for all project components	MOT and cofinanciers to agree to adopt common ADB safeguard policies and requirements for all project components	2010–2016	None	

ADB = Asian Development Bank; DOLISA = Department of Labour, War Invalids and Social Affairs; DOT = Department of Transport; MOT = Ministry of Transport; PMU-MT = project management unit-My Thuan; PPC = provincial people's committee.
Sources: Asian Development Bank and the Government of Australia.

D. Implementation Arrangements

21. The Ministry of Transport is the executing agency and will oversee the implementation of the SAP for all components. Specific agencies and organizations have been identified for the various SAP activities, and their participation will be confirmed during project implementation.

E. Cost Estimates

22. It is estimated that the SAP (with the exception of costs for land acquisition and resettlement) will cost $1.2 million.

Table A2.2: Social Action Plan Cost Estimates

Social Action Plan	Total	Source of Funding
Land acquisition and resettlement	$54,200,000	Government counterpart
Livelihoods (ferry terminal areas)	$330,000	Through provisional sum in the consultants contract
Access and mobility	Not costed	Not costed
Affordability	Nil	Nil
Road safety	Not costed	Not costed
HIV and human trafficking	$600,000	Through provisional sum in the TA
Gender	$130,000	Through provisional sum in the TA
Labor	Nil	Nil
Indigenous people	Nil	Nil
Communication and disclosure	Not costed	Through provisional sum in the TA
Consistent safeguards application	Nil	Nil

Sources: Asian Development Bank and the Government of Australia.

COST ESTIMATES AND FINANCING PLAN
($'000)

Item	Amount
Government of Australia[a]	
A. **Detailed Design and Procurement Support**[b]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	6,263.00
ii. National consultants	1,263.50
b. International and local travel	296.00
c. Reports and communications	359.50
2. Training, seminars, and conferences	35.00
3. Surveys	1,325.00
4. Miscellaneous administration and support costs	132.00
5. Equipment	20.00
Subtotal (A)	**9,694.00**
B. **Implementation Support**[b]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	5,400.00
ii. National consultants	4,003.80
b. International and local travel	210.90
c. Reports and communications	292.20
2. Training, seminars, and conferences[c]	1,300.00
3. Surveys	100.00
4. Miscellaneous administration and support costs	126.00
Subtotal (B)	**11,432.90**
C. **Contingencies**[d]	
1. Physical	2,112.70
2. Price	2,760.40
Subtotal (C)	**4,873.10**
Total	**26,000.00**

[a] Administered by the Asian Development Bank. This amount also includes Asian Development Bank's administration fee, audit costs, bank charges, and a provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant, or any additional grant from the Government of Australia.

[b] In mid-2010 prices, exclusive of all taxes and duties.

[c] Includes expenditures for the implementation of the social action plan as provisional sum.

[d] Physical contingencies computed at 10% for consulting services. Price contingencies computed at 1% on foreign exchange costs, 8% for 2011 and 6% for 2012–2015 on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Sources: Asian Development Bank and the Government of Australia estimates.

OUTLINE SCOPE OF WORK AND TERMS OF REFERENCE FOR CONSULTANTS [1]

A. Introduction

1. The Central Mekong Delta Region Connectivity Project will construct the portion of Viet Nam's proposed north–south inland expressway that traverses the Mekong Delta region to the west of Ho Chi Minh City. The project consists of three principal components:

(i) the Cao Lanh Bridge, a cable stayed structure about 2 kilometers long and 6 lanes wide over a branch of the Mekong River, with a central span of 350 meters (m) and a maximum height above water level of 37.5 m;
(ii) a connecting road between the two bridges about 16 kilometers long, designed to 6-lane expressway standard and constructed initially to 4 lanes; and
(iii) the Vam Cong Bridge, similar to the Cao Lanh Bridge, with a 450 m central span.

2. The project has been developed with the support of a project preparatory technical assistance (TA) grant financed by the Asian Development Bank (ADB) and the Government of Australia. [2] The purpose of the project preparatory TA was to develop the project to a level suitable for ADB financing. The project preparatory TA provided the resources required to prepare the project and identify adequate mitigation of the project's social, resettlement, environmental, and other impacts. The project preparatory TA also reviewed and updated feasibility studies prepared by Viet Nam's Ministry of Transport (MOT) and its project management unit-My Thuan (PMU-MT). The project preparatory TA found the project to be financially and economically feasible, with social and environmental impacts that could be effectively mitigated.

3. Based on the project preparatory TA study, the estimated cost of the project is about $750 million. The government has requested financing assistance for the project from ADB, the Government of Australia, and the Government of the Republic of Korea. When completed, the project will be operated as a toll road, with tolls set to recover operation and maintenance costs.

4. As part of the overall project financing, the government has requested ADB to provide support for the detailed design and implementation support, including construction supervision of components 1 and 2 and a portion of component 3 (essentially the road approaches to the Vam Cong Bridge) as a package. The Government of Australia is considering financing these activities. The major portion of component 3, for which the Government of the Republic of Korea has indicated it may provide financing, will be designed and supervised separately.

5. The detailed design and implementation support activities will be undertaken by a single consulting firm, which may be a consortium of firms, referred to as the consultant from now on. The consultant will be selected by ADB, in consultation with the PMU-MT, and contracted by the PMU-MT. Separately, the PMU-MT will engage a proof-check consultant to undertake an independent check of all aspects of the Cao Lanh Bridge designs prepared by the consultant.

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[1] Comprehensive terms of reference for each consulting service package were developed using these outline terms of reference as the basis.

[2] ADB. 2007. *Technical Assistance to the Socialist Republic of Viet Nam for Preparing the Central Mekong Delta Region Connectivity Project*. Manila (TA 7045-VIE). www.adb.org/Documents/TARs/VIE/40255-VIE-TAR.pdf

B. Scope of Work

6. The detailed design scope of work covers the following principal activities:
   (i) Review all aspects of the project preparatory TA feasibility study designs and due diligence study reports to determine the optimal solutions for detailed design. This task is to include reviewing the PMU-MT's feasibility study, on the basis of which the government approved the project. Specifically, the review is to take into account aspects of the feasibility study design and other work that were identified as requiring further attention during the detailed design stage.
   (ii) Complete technical design of the project's road and structural works, based generally on the project preparatory TA study and the government's feasibility study approval, including all necessary site surveys and investigations—traffic, topographic, hydraulic and hydrologic, geotechnical, materials, morphological, and river studies.
   (iii) Arrange physical modelling of the main bridge structure to assess the structure's responses to wind, earthquakes, traffic, and other loadings that may occur during the bridge's service life.
   (iv) Arrange, if required, physical modelling of the river in the vicinity of the bridges, to assess the impact of the bridges on the river's morphology, bank stability, etc.
   (v) Identify sources of construction materials.
   (vi) Prepare cost estimates.
   (vii) Prepare detailed procurement and construction schedules.
   (viii) Prepare bidding documents.
   (ix) Assist the PMU-MT with procuring contractors to construct the works.
   (x) Assist the PMU-MT and the provincial agencies in the updating, implementing, and monitoring of the resettlement plans based on detailed design.
   (xi) Ensure that the project design complies with the environmental management plan and that procurement documents include relevant environmental management plan provisions.
   (xii) Assist the PMU-MT in the detailed planning and implementation of the social action plan in close collaboration with various agencies and organizations.
   (xiii) Undertake a baseline study for the project's benefit monitoring program.
   (xiv) Prepare a management and operations strategy for the project when complete.

7. The implementation support scope of work will include the following activities:
   (i) As the engineer for the contracts, as defined in the Fédération Internationale des Ingénieurs-Conseil known as FIDIC conditions of contract, under which the contracts will be administered,[3] supervise all construction activities to ensure that the civil works contracts are implemented, and the works completed, in accordance with the provisions of the contracts.
   (ii) Ensure that the civil works contractor complies with the contract's environmental management plan.
   (iii) Ensure that contract payments are certified, and payments made, in accordance with the contract.
   (iv) Establish a monitoring and evaluation framework for the overall project.
   (v) Provide the PMU-MT, ADB, and the Government of Australia with progress and other reporting in the form and to the frequency required.

[3] ADB's standard procurement documents, under which the civil works contract will be procured, are based on the FIDIC conditions of contract.

(vi) Assist the PMU-MT in the detailed planning and implementation of the social action plan in close collaboration with various agencies and organizations.
(vii) Assist the PMU-MT and the provincial agencies in the updating, implementation, and monitoring of the resettlement plans based on the detailed designs.
(viii) Supervise installation and commissioning of tolling, emergency traffic management, signage, and communications systems to be provided on the project.

8. The detailed design will be undertaken generally in accordance with the following standards and guidelines:

(i) Cao Lanh Bridge: appropriate internationally accepted design standards for long span bridges, with reference to Vietnamese standards as appropriate;
(ii) other bridges and structures: Vietnamese standards;
(iii) roadworks: Vietnamese standards, with pavement designs checked against relevant international pavement design standards;
(iv) environmental and social safeguards: ADB's Safeguard Policy Statement (2009) and Government of Viet Nam policies and guidelines;
(v) gender and development: ADB's Policy on Gender and Development (1998); and
(vi) procurement: ADB's Procurement Guidelines (2010, as amended from time to time).

9. The detailed design of all project components will take into account the possible impacts of climate change on water levels, rain and flood frequency and intensity, and on other characteristics of the area in which the project is located. Specific attention will be given to bridge and waterway clearances, road profile elevations, and possible changes in the behaviour of the Mekong River channels over which the bridges are to be constructed. This aspect of the design process will reflect studies undertaken by ADB, Viet Nam's Ministry of Natural Resources and Environment, and others, of the possible impacts of climate change on southern Viet Nam, and on the Mekong Delta in particular.

C. Implementation Arrangements

1. Management and Coordination

10. Reflecting the need for coordination across all aspects of the project, the MOT will establish a project coordinating committee (PCC), to be chaired by the MOT's vice-minister and made up of representatives from the people's committees for the provinces in which the project is located, from ADB, the Government of Australia, and the Government of the Republic of Korea. The consultant will assist the PMU-MT, which will be the secretariat for the PCC. The PCC will meet quarterly, or more frequently as required.

2. Resources

11. The consultant will be an international consulting firm, or a consortium of international consulting firms, in association with national consultants. To be considered for appointment, consultants will have successfully completed the design and construction supervision of at least two bridges of similar size and configuration to the Cao Lanh Bridge within the past 10 years.

12. The detailed design activity will require about 200 person-months of international consultants and 300 person-months of national consultants, supported by technical and administrative teams. The construction supervision will require about 170 person-months of

international consultants and 1,300 person-months of national consultants. Consultants may propose alternative staffing arrangements within these overall ceilings.

13. The consultant will be headed by a project manager and will be made up of teams for (i) design of the Cao Lanh Bridge; (ii) design of the project roads and bridges; (iii) safeguards and social impacts—environment, resettlement, and gender and social development; (iv) procurement; and (v) construction supervision. The consultant will engage subcontractors and subconsultants as necessary for all surveys, model testing, site investigations, resettlement census and detailed measurement survey, social impact assessments, land valuation and replacement cost survey, income restoration programs, and others as necessary.

14. It is anticipated that the design work for the Cao Lanh Bridge will be undertaken in the consultant's home office, to ensure access to senior design specialists and computer systems. The consultant will arrange for PMU-MT and MOT officials to visit the design office at critical stages of the design process, to ensure that they are fully involved with the activity. Detailed design for the other project components will be carried out in Viet Nam. The construction supervision team will be based in Viet Nam.

15. The consultant will be contracted on the basis of a lump-sum budget for the detailed design and procurement part, with provisional sums for additional or unforeseen work, studies, investigations, etc, and time input for the implementation support part. Full technical proposals will be required. Equipment for the assignment will be procured in accordance with ADB's Procurement Guidelines.