I. Key development issues and rationale for Bank involvement

1. The transport sector has contributed positively to the economic growth of Vietnam over the past decade and has helped reduce poverty directly through better linkages to markets, education and health facilities and indirectly through its contribution to growth. The impressive economic progress manifests itself in many ways:

- Real Gross Domestic Product (GDP) grew at an annual rate of 7.2 percent between 1995 and 2005 and reached 8.2 percent in 2006. GDP per capita increased from US$170 in 1993 to US$726 in 2006 and is expected to reach US$1,000 by 2010;
- Poverty, measured at the $1 a day threshold, dropped significantly from 51 percent of the population in 1990 to just 8 percent;\(^1\)
- Exports continued their rapid growth, increasing in value by 22 percent in 2006 to reach US$40 billion (54 percent of GDP). The top six exports being oil, garments and textiles, footwear, aqua products, wood products and electronics; and
- Foreign direct investment, considered to be one the highest in the world relative to the size of the economy (almost 10% of GDP)\(^2\) reached US$10.2 billion in 2006, an increase of 49 percent over its 2005 level.

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\(^1\) Infrastructure Strategy—Cross Sectoral Issues

\(^2\) VDR 2006--Business
2. Vietnam’s high rate of investment in infrastructure has been a major enabler of, and catalyst for, this economic progress. Indeed, Vietnam has been among the world’s leaders in infrastructure investment with annual expenditures reaching an equivalent of a 9-10 percent of GDP, about half of which is in transport.

3. The rapid growth in transport infrastructure and services over the past decade, however, has created new demands and challenges for the transport sector. Bottlenecks to business activities caused by infrastructure constraints are already appearing in several areas. The fast economic growth has contributed to high rates of urbanization, rising traffic accidents, new capacity constraints, and a large increase in asset preservation requirements to meet the fast expansion of transport assets.

4. **Rationale for Expressway Development.** To address these infrastructure bottlenecks, and to gradually remove the transport constraints on industry, Vietnam is embarking on an ambitious expressway development program. It will take most of the next 20 years to build a national expressway network that will then provide a high speed, high capacity link from north to south and form radial and circular links around the major cities.

5. Vietnam’s rapid economic growth has resulted in rapid traffic growth, particularly around HCMC and Hanoi. Although road traffic growth in the country as a whole is around 8 percent per annum, recent consultant studies suggest the rate is much higher in the Northern Red River Delta and the Southern Mekong Delta. A recent study for the Northern Delta suggests that road traffic has been growing by 29 percent per annum. The recent expansion of the national vehicle fleet is also impressive with year on year increases of 14-20 percent between 2005 to 2008, sales of cars increased by 41 percent from 2007 to 2008.

6. To date the transport sector has provided for this growth principally through the rehabilitation and widening of existing arterial roads. The national road network has expanded to 17,000 km, the overall condition has improved with 66 percent of the network being in good and fair condition and 84 percent of the network is now paved. However, only four percent of the network has four or more lanes and capacity constraints are beginning to emerge in the network particularly around Hanoi and HCMC. If traffic growth rates continue at their current rate these constraints could adversely impact future economic development.

7. There is also a growing problem of “urbanization” of road space where residential and commercial activity spills over from the road reserve onto the road. The ribbon development that takes place along the roads makes widening existing roads an expensive and time consuming proposition. The roads also suffer from mixed traffic streams where pedestrians, non-motorized traffic, motorcycles and slow moving vehicles all merge with the faster trucks and buses. As a consequence average vehicle speeds are very low and Vietnam has one of the worst road safety records in the world.

8. With a rapidly growing population, with Government’s desire to maintain annual economic growth of over 8% per annum\(^3\) and the significant widening of the industrial base, Vietnam has

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\(^3\) The global economic crisis has slowed growth but signs of recovery are evident and the Government ‘s objective is to go back to high growth rates of around 8% achieved in the recent past
reached the stage of development where there is a defendable argument for creation of a high capacity, controlled access trunk highway network upon which to hang the rest of the roadway network. This same decision was taken by all the developed countries and many developing countries over the past 50 years. Clearly a number of the links in the planned national trunk network will not, initially, be financially or even possibly economically viable, but the decision to create the trunk network is ultimately, strategic and it should be considered in that light\(^4\).

9. **Planning and institutional framework for expressway development.** The Ministry of Transport (MOT) has developed a master plan for expressway development. The plan emphasizes development of the north-south corridor parallel to Highway 1, expressways radiating out from the major cities and ring roads linking them together further supporting growth in the main economic zones. The planned network is about 4,700 km with an estimated cost of $30 billion required by 2020. The ADB have also funded a technical assistance study to review the master plan and the consultants have carried out further traffic, financial and economic analysis on the major links to propose a short term, medium term and long term program\(^5\).

10. Although planning and prioritization of the network has been done, there still remains a degree of fluidity to the setting of priorities. This is largely due to the interest of donors and their commitments for portions of the network of particular significance to them but also because of unsolicited proposals. Development to date has been slow and the program has been hindered by a lack of capital and an over reliance on weak domestic SOEs forming joint ventures to finance and undertake the works. This practice is known as a domestic BOT but in reality very little non-state capital is used leading to less than successful implementation to date.

11. Estimates of the financial viability of the various expressway links varies and has been based on the tariff multiplier, calculated as the tariff needed to provide a positive NPV based on the proposed tariff developed by the consultant based on the savings in vehicle operating cost and time cost and keeping in mind the current toll levels charged on existing roads. There were only 6 links for which the tariff multiplier was less or equal to 2.5, which is a reasonable estimate of the number of links likely to be financially viable for some form of BOT funding\(^6\). Even those links will likely require some form of blended funding with a significant need for ongoing government support. What that support will be and how it will impact on the pace of development has not yet been determined.

12. Investment discussions are active. Significant donor support is planned and is likely to materialize. Under current plans, much of the main north-south backbone is likely to be financed primarily by the Government of Japan with low interest development loans through Japan Bank for International Cooperation (JBIC). The Asian Development Bank is also active as are the Korean and Chinese Governments. Major cost uncertainties remain, specifically regarding acquiring land, resettlement and environmental mitigation. The GoV is very keen on Private Public Partnership (PPP) options. The limitation of that approach, how best to link it to the

\(^4\) Decision of the Minister of Ministry of Transport re: The Establishment of Vietnam Investment and Expressway Development Company, October 2004


\(^6\) Ibid pg. 67
ongoing donor funded investment and the longer term impact of direct and contingent liabilities have been assessed in a current WB funded TA which focuses on PPP.\footnote{Vietnam Infrastructure Finance, Analytical and Advisory Assistance (AAA) to the Government of Vietnam, June 18, 2008}

13. The current institutional arrangements in MOT for the expressway network focus on the Vietnam Expressway Corporation (VEC) established in October 2004. VEC’s mandate includes investment in expressway construction, management, maintenance and toll collection, construction and operation of related facilities, and the planning, appraisal, design, and supervision of construction. Support for capacity building in VEC has been provided by ADB since late 2006. However, MoT is already concerned about capacity constraints in VEC and they have asked the Bank to provide guidance on the best legal and institutional structure for development of the expressway system. In particular, a sound legal basis for the development and management of the expressway network is not yet in place. Formal ownership of the network is not specified and a legal foundation for defining the responsibilities of the Government and the developer/operator has not been created.

14. Long-term issues such as the efficient operation of the future network also need attention. The establishment of common standards for tolling, data collection and data transfer, overloading control, authority for determining right of use of the network and provision for monitoring and effective quality control are still needed.

15. **Da Nang to Quang Ngai Expressway Project.** In November 2007, the World Bank declared Vietnam to be eligible for IBRD lending. The development of the expressway network was identified by the GoV as a priority for IBRD lending and following discussions with MoT the Da Nang – Quang Ngai expressway project has been identified as the main priority for WB funding. The GoV funded a feasibility study for this section in 2003 with the intention of designing a BOT project but the proposed project did not materialize. In early 2007, the GOV requested JETRO to finance a further Feasibility Study for the Da Nang-Quang Ngai section, a draft of this study was submitted to MoT for review in April 2008 and is the basis for this PCN. The estimated cost for this section is $1.2 billion, it is not considered appropriate for PPP type funding arrangements and the government has also asked JBIC to finance with the WB.

16. The Da Nang – Quang Ngai expressway section will support the nationwide development of Vietnam and is of international importance to the Government of Vietnam. This section is located between Ho Chi Minh and Ha Noi in Central Vietnam, with more than 40% of traffic being long trip traffic connecting Northern and Southern Vietnam. The expressway development will also stimulate the development of Da Nang as an exporting centre. It has the third largest Sea port of Vietnam, Tien Sa Seaport, that can receive 35,000 DWT ships. The recently developed East-West-Economic Corridor, a 1,500 km corridor, connecting Da Nang with the Andaman Sea in Myanmar, through Laos and Thailand, also promotes Da Nang’s location as a gateway to the international market. Perhaps the main driver for development of this link is the Dung Quat industrial area which also includes the soon to be completed first oil refinery in Vietnam.

17. The expressway will also promote socio-economic development of Central Vietnam. Da Nang is the capital of the central lowlands. The Socio-economic development strategy of
Vietnam applies harmonized development policy among North, Central, and South of Vietnam; Integrated Industrial Area Development Strategy (IIADS) have been planned and executed in the three regions accordingly. However, the GDP per capita in the central region is comparatively lower than the other two regions. Construction of this expressway section is essential for the socio-economic development and growth of the central region of Vietnam.

18. While the central region does not have the highest traffic volumes in Vietnam an initial economic analysis carried as part of the JETRO study does indicate a positive Economic Internal Rate of Return of 18.2%. Based on estimated financial costs and toll revenues, the financial internal Rate of Return (FIRR) was between 6.9%-9.6% (depending on the toll rate) a level not considered high enough to attract private sector participation to invest to this project.

II. Proposed project development objective(s)

19. The project development objective is to improve transport linkages in the Central Region of Vietnam through the development of a high capacity, high standard expressway facility to support social and economic development, as measured by reduced road transit times, tariffs, safety risks, and by the efficient operation and management of the national expressway network.

III. Preliminary project description

20. Component A: Da Nang – Quang Ngai Expressway Corridor (US$ 1.3 billion – Bank financing $500 million IBRD and $80 million IDA). This link would connect Da Nang with Quang Ngai on a new alignment bisecting 20 major national and provincial highways. The construction would include a controlled access expressway, currently proposed to be 4-lane dual carriageway expressway standard, four major bridges, 1 tunnel of about 450m, nine intersections and about five kms of viaducts. Construction supervision, expressway facilities and equipment would also be financed from this component. The current total length is 131 kms on the proposed alignment. It is proposed that the project will be parallel financed with the Japan International Cooperation Agency (JICA), these arrangements are to be confirmed. JICA will finance the section from Da Nang to Tam Ky (65kms), the Bank would finance Tam Ky to Quang Ngai (66kms) and the government will fund project management, land acquisition and resettlement costs.

21. Component B: Institutional strengthening (US$ 5 million IDA). This component could finance technical assistance to: (a) develop sound institutional and legal framework and structures for the planning, financing, building and operation of the expressway network; (b) design the operations and maintenance arrangements for this expressway section; and (c) define standards for tolling and operations of toll systems nationwide. As part of the institutional framework, the project would focus on designing and establishing the policy, planning and purchasing function within MoT, as a complement to the assistance being provided through ADB to capacity building in VEC for the building and operation of the expressway network.
IV. Potential risks and mitigation

22. One of the main project risks is associated with the traffic volumes and toll revenues. While current toll rates are low compared to international standards, the affordability of these tolls is also very low. The Ministry of Finance is aware that there will have to be government support for the investment but it expects that toll revenues will at least cover operations and maintenance and a portion of the investment financing costs. There is a danger that if toll rates are not set at an optimal level there will be insufficient funds to cover even the operations and maintenance costs and/or that the economic benefits are adversely affected. During preparation the task team will work with MoF and MoT to look at optimal toll rates and the implications for the financial and economic viability of the project. Key to this is the treatment of the parallel NH-1 and the options to keep through traffic on the proposed expressway.

23. This is the beginning of the expressway program in Vietnam and it is clear that capacity for implementation, both in terms of project management, engineering design, supervision and construction, will be a key factor in the success of the program. PMU-85 has been assigned as the main implementing unit for the project and while they are not familiar with WB procedures they have managed a number of large scale projects and are considered one of the stronger PMUs. However, most of the large scale construction companies are still dependent SOEs under the MoT and therefore ineligible to participate in WB funded projects. Domestic construction capacity will be a constraint and there will be a reliance on international contractors for the work. The Bank has applied for an AusAID trust fund to support the rest of preparation. One component of the work will be a capacity development program to address these issues.

24. The financing plan involves a combination of Government, JBIC and World Bank funds. There is a risk that if all these funds do not materialize that the expected development benefits would not be fully met. There is also a generally inflationary environment in Vietnam at the moment and there is a risk that final investment costs could be higher than expected. During preparation cost estimates and financing arrangements will be monitored closely. If problems do arise it may be necessary to consider a phased approach to the investment, perhaps by building into the design an additional financing operation.

V. Safeguard policies that might apply

The following Safeguard policies will probably be triggered:

- Environmental Assessment (OP/BP 4.01)
- Physical Cultural Resources (OP/BP 4.11)
- Involuntary Resettlement (OP/BP 4.12)

Whether the following safeguard policies are triggered, will be determined during project preparation:

- Natural Habitats (OP/BP 4.04)
- Forests (OP/BP 4.36)
- Indigenous Peoples (OP/BP 4.10)
During the initial safeguards meeting, the safeguards policies that will be triggered are discussed in more detail.

**VI. Tentative financing**

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<th>Source</th>
<th>($m.)</th>
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<td>International Bank for Reconstruction and Development</td>
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<tr>
<td>International Development Association (IDA)</td>
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<tr>
<td>Japan International Cooperation Agency (JICA)⁸</td>
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<tr>
<td><strong>Total</strong></td>
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⁸ Estimated amount, financing from JICA is to be confirmed

**VII. Contact point**

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