1. Country and Sector Background

Like many developing economies, Vietnam recognizes the potential of information and communication technology (ICT) in its various applications to enhance competitiveness, facilitate economic diversification and increase productivity, as well as to improve the efficiency and capability of institutions, particularly in government. The Government of Vietnam (GOV) has produced a number of strategies, master plans and decrees related to ICT (see Annex 1A for the list). Under these programs, the government has undertaken several initiatives to upgrade information and communications infrastructure. These include: introducing information systems into selected government departments and piloting online services; providing incentives to the ICT industry; developing ICT skills and enhancing awareness of ICT, in government and to some extent in the private sector.

The Ministry of Posts and Telematics (MPT) has recently drafted a new National ICT Master Plan for 2006-2010, and an E-Government Master Plan to 2010. MPT is to take the lead in implementing these plans, under the guidance of a National ICT Steering Committee, headed by a Deputy Prime Minister. The new ICT Master Plan proposes a broad and ambitious set of targets: (a) wide diffusion of ICT through Vietnam’s economy and society, such that ICT accounts for a higher percentage of GDP; (b) establishment of a nationwide information and communications network; and (c) comprehensive ICT skills development.

However, Vietnam faces a number of constraints to “e-readiness.” These include high-cost and uneven access to communications infrastructure; a shortage of skilled human resources, including in ICT-specific disciplines; and limited diffusion of ICT within government as well as within the business community. The challenge facing the government is thus not only how to achieve the ambitious targets set out in the new Master Plan, but also to strengthen the management, coordination, coherence and results-orientation of the various ongoing programs—
including the establishment of realistic indicators and benchmarks, and development of successful demonstration models or applications that can be scaled up over time.

The proposed Project will address the following sector issues, including the selected e-readiness constraints identified above:

- **Government leadership of ICT development.** The project will strengthen the technical and managerial capacity of MPT as it seeks to lead the effort for ICT diffusion in society and in government, under the National ICT Steering Committee. The project will assist MPT in establishing coherence among the various ICT support/development initiatives described above, prioritizing implementation, and facilitating more effective monitoring and evaluation.

- **Information infrastructure: access and connectivity.** The project will not support direct investments in infrastructure. However, it will facilitate increased access to telecommunications in the context of a gradual move towards a more competitive market environment and private sector participation. The project will finance advisory assistance to MPT in key areas of telecoms regulatory reform. It will also provide technical assistance to improve the regulatory environment and associated training for regulatory staff.

- **ICT Skills/Human Resources.** The project will not address the broader issue of ICT in education. However, it will help to promote greater awareness of ICT and e-applications in the business community, in particular, SMEs. By supporting government-to-business e-applications, the project will also increase the incentives to businesses to shift some transactions online and become more familiar with e-commerce media and tools.

- **ICT usage in government.** Through a combination of business process improvements and deployment of technology, the project will support a substantially enhanced government online presence and content at the national and municipal level, through interactive and dynamic portals at the MPT, and the People’s Committees of Hanoi, Danang and Ho Chi Minh City. MPT, and the above-mentioned municipal administrations will roll out e-government services to businesses in areas such as e-procurement and business/land registration. The GSO will upgrade, streamline and computerize its collection of economic statistics used in government decision-making.

- **ICT industry and ICT-enabled private sector development.** The project will support extensive training and awareness-raising efforts in three major cities to encourage the diffusion of ICTs in the private sector. In addition, MPT will administer an Innovation Budget to encourage domestic organizations, including businesses and academic entities to develop new ideas and concepts in e-business and ICT sector development.

2. Objectives

The objectives of the proposed project are: (a) facilitating implementation of priority elements of the government’s 2006-2010 National ICT Strategy; (b) strengthening the government’s technical and regulatory capacity for ICT sector oversight; (c) enhance ICT awareness and usage in the private sector; (d) stimulate innovation in and develop the IT service sector; and (e)
building sustainable and replicable models for online public service delivery and communications through e-applications.

3. Rationale for Bank Involvement

The GOV requested the Bank’s support for ICT development for the following reasons:

- **Comparative advantage.** The Bank is actively engaged in the fields of telecommunications sector reform, e-government, and ICT development in over 80 countries in the developing world, including in the East Asia and Pacific region.
- **Sector dialogue.** The Bank has been discussing telecom and ICT policy issues with the government of Vietnam over the past several years and is aware of the key challenges and main players.
- **Coordination with partners.** The Bank can play a coordinating role among development partners in this broad and complex area which will help to prevent overlap and duplication.
- **Broader sectoral perspective.** The Bank is aware that ICT can and should be usefully integrated as an enabling tool in other sectors, and thus contribute more broadly to growth and poverty reduction in Vietnam.
- **Long-term financing.** The Bank can provide long-term, large-amount financing.

4. Description

**Lending Instrument:** The project will be implemented over a five-year period, from 2006-2010. The loan will be provided as a standard IDA Credit of $92.7 million. The lending instrument chosen is Specific Investment Loan (SIL).

**Project Components:** The project comprises five subprojects in three areas: (a) leadership in information and communications technologies (ICT) and modernization of the Ministry of Posts and Telematics (MPT); (b) modernization of the General Statistical Office (GSO), (c) and E-applications for the municipalities of Hanoi, Danang and Ho Chi Minh City.

**Subproject 1: ICT Leadership and MPT Modernization** will support the implementation of the government’s national ICT strategy, assessing and improving telecommunications policy, improving the operating efficiency and effectiveness of MPT, and the ICT capability of other government ministries through the CIO function. Specific components will include the following: (1) Development of E-Government in MPT; (2) Portal creation; (3) CIO Training; (4) ICT Policy and Regulation Training; (5) ICT and telecoms regulation; and (6) ICT budget for innovation initiatives.

**Subproject 2: GSO Modernization** will support the implementation of the strategic plan for modernization of GSO, in particularly, improve the quality, transparency and timeliness of socio-economic and poverty related data and information to fully meet the demands of government agencies, research institutions, and other data users as the basis for policy planning and decision making; to modernize the system to reach an advanced level in the region; and to improve timeliness of data statistical analysis and dissemination of useful data and statistical information.
The components to contribute to these objectives include: (1) ICT Infrastructure Upgrade at GSO; (1) Data Flow and Statistical Analysis Enhancement through ICT; and (3) GSO Portal and Intranet Creation.

Subprojects 3, 4 and 5: E-Applications in Hanoi, Danang, and HCMC will support activities to enhance the ICT environment in these cities, provide the basic foundation for deployment of e-government in the cities’ district offices and departments, and development of various types of e-government services; and promote e-applications for businesses and develop ICT skills. The components to be undertaken under these subprojects include: (1) development of a strategy, roadmap and conceptual IT Architecture for the cities’ e-government development, (2) local e-government enablement, including data centers and ICT transaction centers, (3) e-applications and e-commerce, and (4) ICT human resource development and awareness-raising.

In all three areas, there is a strong focus on raising the levels of ICT capacity and general awareness within the government and private sector, particularly SMEs. Multiple training components are included in each subproject, ranging from general ICT awareness-raising and computer literacy in the administrative levels of governmental agencies to setting up a national training program for CIOs and IOs to use ICT as a strategic tool. Substantial SME training in ICTs will also be included as part of the national, Hanoi, HCMC, and Danang subprojects.

5. Financing

<table>
<thead>
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<th>Source</th>
<th>($m.)</th>
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<tbody>
<tr>
<td>BORROWER/RECIPIENT</td>
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<tr>
<td>INTERNATIONAL DEVELOPMENT ASSOCIATION</td>
<td>92.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

6. Implementation

The project will be *implemented* over five years, from January 1, 2006 to December 31, 2010.

Given the scope of the project and the responsibilities of relevant government agencies, a decentralized approach to the *implementation structure* will be adopted (see the Figure 1). Each implementing agency will have its own PIU, its own procurement plan, and its own Special Account. Each implementing agency will be responsible for delivering outputs and outcomes for their particular subproject. Similar arrangements have been adopted for other World Bank projects with multiple, decentralized subproject or components.

Although day-to-day implementation will be decentralized, there is a need for overall coordination of project monitoring and reporting. Knowledge-sharing across subprojects is also strongly encouraged, given similarities of scope. An overall PCU, will, therefore be set up within MPT. The PCU will have its own budget which will be drawn from the MPT Special Account, and it will:

- Align the PIUs’ ICT strategies,
- Handle coordinated procurement on a limited basis,
• Operate and maintain a Web-based project management information system to facilitate progress monitoring and reporting, and information exchange,\(^1\)
• Consolidate financial and auditing reports to be submitted to the World Bank; and
• Arrange and facilitate regular meetings of the PIUs to discuss issues of common interest and concern.

Figure 1. Implementation Structure

A PIU will be established in each implementing agency. Each PIU will be responsible for:
• Coordinating with the WB, PCU, and departments at provincial level,
• Preparing the annual implementation plan based on the project implementation and procurement plan,
• Managing resource monitoring, preparation of bid documents, appraisal and procurement of contract packages and contract management and financial management,
• Preparing and producing timely reports for submission to the World Bank, PPC, PCU and other relevant agencies,
• Monitoring and evaluation for the whole subproject implementation,
• Preparing and implementing the training and capacity building plan, and
• Preparing the disbursement plan and being responsible for withdrawal of funds, payments to contractors and suppliers.

7. Sustainability

\(^1\) A secure Intranet site should be set up exclusively for the use of the PIUs. This will allow the PIUs to share their experiences, post subproject information online (such as procurement requirements, pricing information, technical specifications and key project developments), have a common forum to discuss implementation steps, similar issues and facilitate cooperation among the PIUs.
The project is building on the momentum generated by increased demand from the private sector and civil society for ICT development, and top-level support within the GOV. The project exhibits a number of important characteristics that ensure its sustainability, as follows.

- GOV has a strong commitment to develop and introduce modern e-government programs and telecommunications reform. A large number of ICT projects have been authorized by the government, as evidenced by the Vietnam IT Master Plan for 2000 to 2005 and the new national ICT Strategy for 2006-2010.
- The project plans to provide training to a substantial number of civil servants at the national and municipal level to ensure sustainable human capacity to implement the project and maintain ICT development in Vietnam.
- Financial viability:
  - For capital investments in components such as the transaction/training centers, different business models (ownership, fee structure, marketing strategy, public-private partnerships, service providers etc.) will be reviewed. The selected model will ensure that the project funding for the centers will be provided on a declining basis, while the centers become profitable and will have a business interest to continue providing services before the project ends.
  - Government budget assures ongoing provision of operations and maintenance costs during the project. For some components, such as the management of some of the facilities, gateways, portals, operations and maintenance will be outsourced. This provides higher sustainability and business opportunities for the private sector. Other components will be operated by the implementing agencies directly.
- The project is placing high priority on developing a transparent and clear financial management and resource allocation process which will help the implementing agencies in predicting budget for future needs.

8. Lessons Learned from Past Operations in the Country/Sector

The project draws on lessons learned from previous and ongoing Bank-financed projects in ICT, and from ongoing efforts in neighboring countries such as the Malaysia, the Philippines, and Thailand. Broad global experience of ICT project implementation indicates that ICT project success is primarily contingent on strong country ownership and sustained commitment to implementation. The proposed project design has been guided by the government’s National ICT Strategy for 2006-2010 (and previous high-level policy documents endorsed by the Prime Minister), and is thus fully owned by the government. Other lessons learned are summarized below.

*Need for comprehensive policy framework, incorporating all development partner-financed activities.* The project design was based on a comprehensive policy issues paper that drew on primary research as well as studies and analyses on ICT issues prepared by other development partners in Vietnam. Regular consultation with other partners, notably the Asian Development Bank (ADB), European Union, United Nations Development Programme (UNDP) and the United States (USAID) will need to be maintained during implementation.
Involvement of private sector stakeholders in project design, preparation, and execution. During project preparation the Bank team met with associations representing the private sector, and with private players in the ICT industry and incorporated their suggestions and priorities into the project design. In particular, private stakeholders suggested and endorsed the emphasis of streamlining government processes that currently burden their business operations. During project execution, this dialogue should continue through regular consultation with business representatives, in particular, the SMEs.

Balancing supply- and demand-side approaches. E-government and ICT diffusion efforts in many countries have adopted overly supply-driven approaches. The proposed project includes a significant supply component, but also focuses strongly on raising awareness, interest and skill levels among all stakeholders in order to stimulate the demand side.

People- rather than technology-centric approaches. Some of the earlier government portal and government-to-business (G2B)/government-to-citizen (G2C) initiatives in Vietnam have underperformed or failed on account of their disproportionate focus on technology or equipment at the expense of process, applications and people. Business process change, training, and awareness-raising are thus sequenced ahead of equipment purchase and application development in the project design. In this regard, lessons have been drawn from the various public administration reform projects, in Vietnam particularly Program “112” or State Administrative Modernization and Computerization.

Focus on capacity. Another lesson learned from the many projects that involve telecommunications and ICT regulation is that newly-created agencies are frequently overwhelmed with complex issues, and have little expertise upon which to draw. Support from onsite advisers and operational advice during the initial stage to deal with priority issues is invaluable. Hence the project is designed with a significant training element for capacity building for MPT staff.

Information systems compatibility/inter-operability. The project envisages developing a common national IT architecture and interoperability framework. It is important to have such a framework in order to move towards an integrated, one-stop delivery of government services. A number of countries have developed national interoperability frameworks. These and other similar frameworks will be taken into account to develop an interoperability framework for Vietnam covering technical standards, semantics and organizational interoperability.

9. Safeguard Policies (including public consultation)

<table>
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<tr>
<th>Safeguard Policies Triggered by the Project</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment (OP/BP/GP 4.01)</td>
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</tr>
<tr>
<td>Natural Habitats (OP/BP 4.04)</td>
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</tr>
<tr>
<td>Pest Management (OP 4.09)</td>
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<td>[x]</td>
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</table>

2 The Dublin Core has gained wide acceptance for defining meta-data standards. Other prominent ones include the Federal Enterprise Architecture of the US and eGIF (e-Government Interoperability Framework) of the UK. The European Union has last year come up with a European Interoperability Framework for pan-European e-government services.
10. List of Factual Technical Documents

- PHRD Grant proposal – approved
- PHRD Grant Agreement (TF 052418)
- Terms of Reference for PHRD Grant Assignments
- PHRD Grant Contracts
- World Bank Mission Aide Memoirs
- Correspondence with the Government

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* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas