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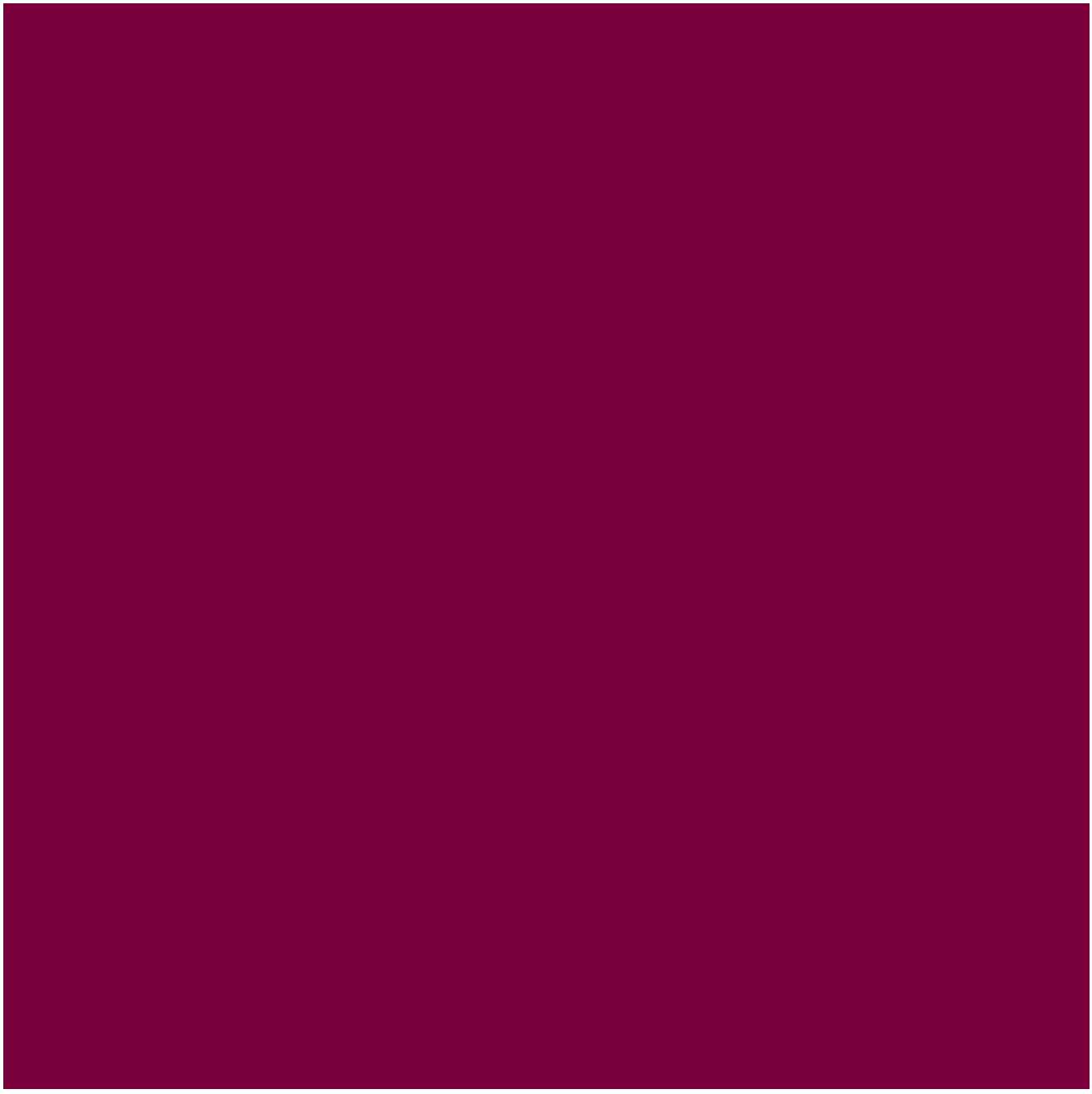
Survey of ICT for improved governance and rural development

Vietnam



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List of abbreviations

ADB	Asian Development Bank
CIDA	Canadian International Development Agency
CPNET	Government Information Network
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
CPV	Communist Party of Vietnam
e-Government	Electronic Government
GoV	Government of Vietnam
ICT	Information and Communication Technology
MIS	Management Information System
MoARD	Ministry of Agriculture and rural Development
MoCI	Ministry of Culture and Information
MoST	Ministry of Science and Technology
MoT	Ministry of Trade
MPI	Ministry of Planning and Investment
MPT	Ministry of Posts and Telecom
NA	National assembly
NDB	National databases
NIPTS	National Institute of Posts and Telematics Strategy
OOG	Office of the Government
PAR	Public Administration Reform
SAMCom	State Administrative Management and Computerization
Sida	Swedish International Development Cooperation Agency
TA	Technical Assistance
UNDP	United Nations Development Program
WBG	World Bank Group

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1 Executive summary

ICT is regarded an enabler for development within many areas of the society. In western countries ICT has been shaping and driving the development of the society since many years, mainly by enabling the enterprises and businesses within the private sector to fundamentally change their working patterns and launch totally new types of services to their customers.

In a socialistic country like Vietnam main influence on the development of the society comes from the huge public sector, as the private sector still is quite small and evolving. The public sector has a big influence on e.g. business and trade, financial services, construction through the public governance, which is based on current legislation and institutional frameworks. In line with this the ICT-related development cooperation, which targets sustainable development of the society, should primarily be directed to the public administration.

The possibilities for the public sector to act as a pacesetter are to a big extent depending on its credibility among citizens and businesses. However, ICT can even be used as a tool for increasing the credibility; here easy access to public information is one pillar, good transparency of the public administration and its institutions is another. Good transparency is actually the key to an efficient use of financial and human resources that are available for the country and its government. Good transparency can be achieved by good governance only. In a transparent society the processes and the institutional frameworks of the public administration are designed and managed in accordance to the rule of law. Thanks to accessible information about well-designed institutions citizens and businesses can expect the outcome prior to forthcoming decisions. And thanks to the transparency they will have the opportunity to follow and keep themselves informed about the progress of the workflow within the agency, which also fosters the administration to make equitable decisions and provide qualitative services.

ICT by itself cannot generate good transparency, it is just an automation tool. In order to make good use of any tool for automation, proper planning is required. The ICT tool is superior in supporting data processing and information management. Efficient data processing and information management, again, are key tools to support process automation and automated interpretation of institutions. Still the key to success is properly designed processes and institutions. No ICT solution, regardless of how superior it is, can ever “repair” defective processes and

institutions. Still, implementation of ICT has a very positive influence in the sense that it exposes any defects by improving the transparency, which tends to drive the development in the right direction. Therefore implementation of ICT can be regarded as a key driver even for improved governance.

Implementation of ICT to support improved governance is one of the corner stones of the concept called e-Government[1]. Implementation of e-Government will contribute in improving the democracy, which will contribute to poverty alleviation. E-Government, however, cannot be implemented just by applying ICT, it will also put requirements on development and change in working processes and institutions. This is one of the objectives of the Public Administration Reform, PAR, program, which Sida already is supporting.

Thus, the study has mainly been focusing on the situation concerning integration of ICT within the public administration. However, the term ICT has been interpreted to cover also the development and preparations which must be performed by the organizations prior to the implementation of technical solutions. As an ICT-enabled solution with big potentials for the public administration, the e-Government concept has been described at least briefly.

The implementation of the Public Administration Reform, PAR, is a true challenge. It is the single most important prerequisite for a long-term implementation of ICT as it will focus on e.g. renewal of processes and institutions. The PAR itself also focuses on the ICT issue, particularly the sub-program #7 called Modernization of the Administrative System, which exposes ICT as a motor for the PAR.

The proposals for interventions in this report are based on the understanding that supporting the PAR program by mainstreaming ICT not only is in line with Sida's intentions to support development of democratic governance and poverty alleviation, but that ICT-mainstreamed support to PAR also gives highest possible impact and leverage of efforts made. There are seven proposals for extended ICT-related development cooperation described in the report. All proposals describe efforts with potential to give tangible results but they are quite different in terms of scope and scale. While the first one is a pure awareness raising activity the second and third ones deal with planning and co-ordination efforts. The fourth one is a typical development project dealing with a key issue in workflow efficiency, while the fifth addresses infrastructure deployment. The sixth one proposes support to an ICT based application for rural development, and the last one proposes support for a comprehensive new legislation for ICT.

There is a major development program in e-Government. At least any of the above proposals targeting the central level have to well co-ordinated with this ADB supported program. Knowing this, and taking into consideration Sida's development cooperation strategy with Vietnam in combination with our interpretation on the information on actual needs on the Vietnamese side, the recommendation is to prioritize proposals addressing the provincial level aiming at a bottom up approach in project design.

[1] E-Government is the term providing the frame for using ICT to improve the government's interaction with, and service delivery to, the public as well as to enhance its internal processes and the horizontal and vertical collaboration.

2 Background

Sida supports the rapid integration of Information and Communication Technology, ICT, in developing countries in order to improve communications and the exchange of information.

This ICT survey has been commissioned as a prerequisite for the integration of ICT in the Swedish development cooperation in Vietnam and to give a first identification of areas for intervention. The aim is also to provide Sida and other stakeholders with a baseline over the existing ICT development, presenting policy, infrastructure, human resources and content development.

2.1 Methodology and focus of the study

ICT can be an enabler for development within many areas of the society. In western countries ICT has been shaping and driving the development of the society since many years, mainly by enabling the enterprises and businesses within the private sector to fundamentally change their working patterns and launch totally new types of services to their customers.

In a socialistic country like Vietnam main influence on the development of the society comes from the huge public sector, as the private sector still is quite small and evolving. The public sector has a big influence on e.g. business and trade, financial services, construction through the public governance, which is based on current legislation and institutional frameworks. Major donors' funded programs, including the Swedish development cooperation, target public sector institutional development. In line with this the ICT-related development cooperation should really be directed to the public sector. A broad term for the utilization of ICT in public administrations is e-Government.

The analysis focus primarily on areas where integration of ICT can be supposed to contribute to decentralized poverty reduction and democratic governance. In the case of Vietnam, a particular focus is on the 2001–2010 public administration reform. The structure and processes of entire public administration from central to local level, existing ICT environment, databases and applications and the situation on provincial level are reviewed. Moreover, the study also briefly discusses ICT integration in the area of rural development and the private sector.

2.2 Definition of e-Government

E-Government stands literally for electronic government. In fact this does not describe the current meaning of the term. Instead e-Government could be described by the following expressions:

- Improved customer or user interaction and service delivery
- Improved collaboration, horizontally and vertically
- Improved internal processes (and institutional frameworks)

However, the e-Government term does not generally include the component of improving the institutional frameworks. The reason for this is probably that most developed countries already have gone through this quite a long ago; mainly during the 1980'ies when IT applications generally were applied to automate data registration and the processing of the calculations related to the institutional frameworks. With regards to developing countries, however, improvement of the institutional frameworks prior to automation is a mandatory task and should consequently here be included in the definition of e-Government.

In the developed countries the implementation of e-Government has had slightly different focuses in different countries;

- In some European countries, e.g. Sweden, the focus has been on accessibility – the program is called 24-timmars-myndigheten (the "All-Around-the-Clock Agency") and main efforts has been done in the field of improving services to citizens and businesses by use of advanced ICT solutions
- In other countries focus has been on improved back-office processes and as part of that improved information exchange with enterprises like banks and insurance companies with many customers as well as big corporations in general which employ a lot of people and have to exchange information about them with the government

3 National ICT policy

3.1 ICT in public administrations

The overall ICT policy framework in Vietnam is comprehensive, and rather complex. The Government of Vietnam (GoV) has put ICT high on the development agenda for state management as well as for social and economic development of the country. The GoV resolution No 49 (1993) on IT development and PM decision No 211 (1995) determining that IT applications are a top priority in state administration, lead to a five-year national IT plan (1995–2000). Under this program, 160 billion Dong (10 MUSD) was spent on computerizing the State management information system until 1998. There were also projects during the 1990's funded by the French Government targeting computerization of the public administration.

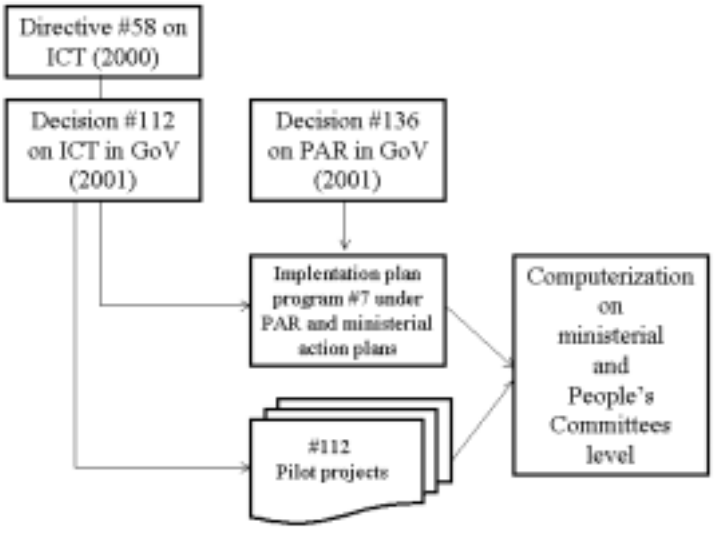

Figure No 1, Public administration ICT policy framework

To further emphasize on the potential of ICT, the Politburo directive No 58 (2000) provides the vision on the use and development of IT for the cause of industrialization and modernization during the period 2001–2010. The directive emphasizes "IT application and development in the country aiming to the contribution of mobilization of physical substance,

intellectual and spirit powers of the whole nation, in order to speed up the renovation process, fast development andFigure No 1, Public administration ICT policy framework modernization of economic industries, to strengthen competitiveness capacity of enterprises, to effectively support the process of active integration into the world economy, to increase the quality of life of people, to ensure security, defense and create the ability of making short-cut and leapfrog for successful industrialization and modernization."

The implementation of the directive is being addressed through four separate programs "Building and upgrading the telecommunications and Internet infrastructures", "Development of the IT manpower resource", "Building and developing the software industry", and "Building and developing the hardware industry".

The PM decision 112 (2001), Project on State Administrative Management Computerization 2001–2005 is one of the key directives for integrating ICT in public administration. PM decision 112 is usually referred to as "project 112" or sometimes as SAMcom (in the following we will use project 112). The principal objective of project 112 is to make the IT development of the state management go hand in hand with the 2001–2010 program on public administration reform (PAR), PM decision 136 (2001), see figure 1 (page 9).

The program on the modernization of the administrative system, action program No 7 under PAR master plan, is the result of decision No. 112 although it also relates to decision No. 136. The ministries are supposed to have their own action plans, thus including activities related to the implementation of project 112 under their responsibility.

Project 112 is consequently based on previous developments under Resolution No 49, as well as the recognition of the importance of ICT in Politburo directive No 58. Project 112 also reflects the GoV's commitment in creating an e-Government under the E-ASEAN framework agreement signed in 2000.

e-ASEAN Framework Agreement, Singapore, 24 November 2000

ARTICLE 9 e-Government

1. Member States shall utilize the ICT to improve the provision and delivery of services by the government.
2. Member States shall take steps to provide a wide range of government services and transactions on-line by usage of ICT applications to facilitate linkages between public and private sector and to promote transparency.
3. Member States shall work towards enhancing inter-governmental cooperation by:

   a. promoting the use of electronic means in their procurement of goods and services; and

   b. facilitating freer flow of goods, information and people within ASEAN.

For the Socialist Republic of Viet Nam
PHAN VAN KHAI – Prime Minister

3.2 Other ICT policies and international ICT assessments

In July 2002 the GoV approved a 2002–2005 IT master plan (MoST). This master plan mainly focuses on the development of the national IT industry, rather than the deployment of ICT in public administration or ICT for poverty alleviation. Presently, UNDP is working with MPT, to facilitate a number of consultations and roundtables[2]. While increasing awareness on various topics in relation to ICT deployment in society, the outcome will be a set of Vietnamese viewpoints on integrating ICT in a choice of sectors. This would provide the foundation for a new comprehensive ICT strategy for Vietnam. The aim is that the new ICT strategy should deepen the discussion on ICT for development and the recognition made in the CPRGS about ICT as an enabler of development.

The present master plan on the IT development and application puts forward the following projects:

- information system of the CPV,
- modernization of information system in the banking sector,
- perfection of the government's financial information system,
- modernization of information system for Custom department,
- improvement and upgrading statistical information system,
- deployment of e-commerce,
- use of ICT for industrialization and modernisation of agriculture and rural development,
- information system for urban management in Hanoi and HCMC,
- use and development of ICT in defence,
- use and development of ICT in public security,
- electronic information system for culture and social development, and
- electronic information system for legal issues.

The strong commitment from GoV to focus on ICT has accelerated the interest in this sector from the international development community over the recent years. There are probably few developing countries that are so well and thoroughly assessed regarding the ICT situation as Vietnam is. There are several very comprehensive reports done by international agencies. Three of the more recent ones are mentioned here, see also appendix 2 for a more complete listing of relevant papers.

- Vietnam Internet Case Study, March 2002, ITU
  - The study provides key figures on telecommunications and Internet, network deployment, tariffs as well as information on regulation and sector structure and leading actors.
- Vietnam's ICT Enabling Environment: Policy, Infrastructure and Applications, June 2002, USAID

[2] Visit www.ict4d.org.vn for information on UNDP's consultative process in Vietnam.

– This report gives an update and a synthesis of the comprehensive ICT assessment done by USAID in September 2001[3]. The report provides the full story on policy development in the sector and the various government programs relating to ICT.

– Accelerating Information & Communication technologies Development in Vietnam, June 2002, The World Bank Group

– The report gives a general overview of the situation, while it does not describe any programs or projects in any details. It describes the role of ICTs in reducing poverty, provides background material on ICTs in Vietnam and discusses a number of key constraints to ICT development.

[3] The 2001 USAID ICT assessment gave focus to Policy Development, i.e. improving policies, laws and regulations to permit the introduction and growth of ICT, Private Sector Development, i.e. promoting the development of the private sector through the spread of ICT applications, and People and Application Activities, i.e. ICT development activities which support broader development goals in society at large.

4 National PC and Internet Penetration

Telecommunications and Internet facilities are still scarce in Vietnam. Even if the expansion in telecommunication networks is one of the highest in the region, this is from a very low level and most people still lack easy and convenient access to these services. The average fixed line network growth over the past years has been 26.8 per cent4, most developments occurring in urban settings. The telephone density, including both fixed and mobile subscriptions, is 7.15 lines/100 inhabitants (March 2003). 2/3rd are fixed line subscriptions and 1/3rd are mobile accounts.

The possibility to access a telephone line obviously also reflects on the usage of the Internet. Even so, with an annual growth rate over 100% for the past years, latest figures is showing only around 1,5 million Internet users, with an estimated penetration rate at 0.26 account/100 inhabitants. Few people have their own personal computer (1,1 PC/100 people), while in average there are 7–8 users per Internet account.

The market for Internet Service Providers is still mostly state-owned, which is another factor limiting the spread of Internet connections.

Content-wise the GoV is trying to balance the basically free-market character of the Internet with a system based on state control. The licensing regulations are strict and require everyone that want to set up a website to have a special approval of the content by Ministry of Culture and Information. This has probably an influence on the amount of local content available and indirectly influence on the use of (and benefits from) Internet. To date around 3200 websites has been registered under the domain.VN. 30% of the domestic enterprises are estimated to be connected to the Internet, and about 10% have their own website.

[4] ITU Internet Case Study

5 The Public Administration – Current Situation

Below is a brief description of the current situation in some important ICT-related areas within the public administration in general and some snapshots of the specific situation in some selected sectors of the administration. The aim is not to provide a complete description of the situation in these areas and sectors but rather to expose prerequisites which are significant to understand as a base for the development of the administration by integration of more advanced ICT solutions on the path towards implementation of e-Government.

5.1 Structure and Processes

The current structure of the public administration in Vietnam reflects the ministry organization of the government. Each sector is headed by a ministry on central level formed by a number of departments and their divisions. Departments/divisions with public service and/or governance tasks are also represented on the regional province level and sometimes on the district level.

On the regional level the operational responsibility lies on the Peoples´ Committees. There is a Peoples' Committee in each of the 61 provinces in the country. The responsibility structure of the Peoples' Committees reflects the ministry structure but there are no direct reporting responsibilities. The committee itself provides the management of the functions of committees as well as the resources, i.e. financing and staffing. However, the ministries at least indirectly provide the objectives, because the services and governance provided by the committees should be carried out in accordance to the legal framework and the institutions defined by each ministry in charge. The Peoples' Committees might in some cases also have representation on the local level, i.e. the district level (which is the lowest legal level).

Business processes, i.e. the way of performing the operational and administrative tasks within the ministries are very traditional; i.e. the processes are self-contained and the work is performed without any consideration to the needs of collaboration with other processes within and outside the actual ministry or agency. Even departments within the same ministry do not cooperate.

On the regional level the organizational structure offers better preconditions for collaboration. Still in reality the departments hosted by the

committees work very independently with a strict focus on their functional responsibility. Citizens and business usually deal with the government on the regional level. But in some cases, especially when the issues are on a higher, non-daily nature, they have to deal with the ministries directly.

Thus the "customers" or "users" of the public services in every single case are urged to deal with many government outlets to get all information, decisions and commissions needed.

The current organization is very functionally oriented and forms a characteristic "stove pipe[5]" structure, see figure No 2. Firstly, this is an expensive model for the government agencies themselves as many processes and functions are duplicated or overlapping. Secondly, it generates a lot of additional, non-productive work for business and citizens. The model is also an obstacle with respect to a cost-effective implementation of citizen and business-centric e-Government solutions.

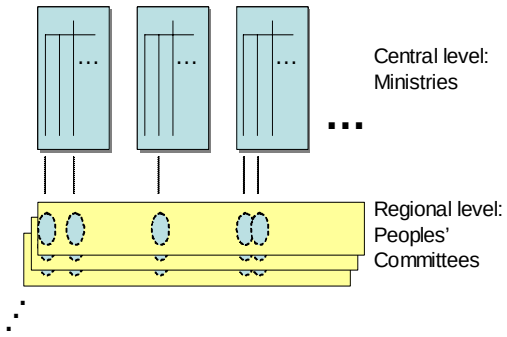

Figure No 2, Brief governance structure

5.2 Human resources, attitudes, capabilities and skills

Efficient use of ICT presumes that the users are skilled and capable of managing and utilizing it in the same way as any tool – an excavator or just a map and a compass – presumes that the user is skilled and capable to use it. In the case of ICT the situation is even more complicated as in the comparisons above.

Successful utilization of ICT presumes that:

1. The organization (management within ministries, other government offices, regional government) and its supporters (consultants, suppliers, donors) should be aware of that:

– ICT is primarily a tool for information management (capture, processing, dissemination)

– Information management is a supportive tool to a business (work flow) process or an administrative system performed in line with the institutional framework

– A good knowledge of the process and its need for information is a prerequisite for planning and designing the information management

[5] The term "stove-pipe" is generally used in the professional literature to describe a vertically or functionally divided structure of an organization. This sort of organization is typical to industrial companies. The opposite is a horizontal organization structure, which is optimised for and encourages to collaboration.

– A proper design of the information management required by the actual process or the performance of the institutional framework, forms the base for the design of ICT applications (programs, interfaces, communication, databases etc)

2. The individual end-user, i.e. the person using the computer, should have:

– Good knowledge of the processes and/or the institutional frameworks he/she is dealing with
– Basic skills in using the computer and the operating system
– Basic knowledge of the general benefits with ICT and especially with ICT as an information management tool
– Basic knowledge of the objectives with the implementation of ICT
– An understanding of that the value of information as a resource can be multiplied by sharing it – and not by keeping it as a personal asset

5.2.1 ICT maturity among the management

The outcome from the performed interviews shows that the ICT maturity is low within the public administration, both from a managerial and an individual perspective.

Within the government organizations (ministries and central offices), there are generally speaking some small "spots" of excellent skills and knowledge about ICT and the potentials of it. These are mainly found within steering committees, executive and staff functions in charge of different development programs and projects with focus on modernization of the administration and the implementation of ICT-enabled solutions. The high-level civil servants, in charge of and involved in these programs and projects not only have a good general skills level in ICT and the utilization of it but they also have good understanding of the dependencies to funding, skills, legal frameworks and national infrastructures.

Outside these spots there is almost no maturity. Civil servants on all levels, from executive to work performers, work with traditional administrational tasks. Most of the information and registers are paper-based and hardly anyone has used a computer. As described above the implementation of ICT should be a well-managed process, which builds on strategic understanding of both the objectives of the administrative reform as of the steps needed in successful ICT implementation.

Typically the civil servants in charge on different levels consider ICT as a very technical issue and usually delegate it to very low levels of the organization. Thus, focus becomes on technology itself, rather than what technology can achieve for the organization.

The civil servants do not understand that the implementation has to start from themselves as responsible for the processes because they do not have basic awareness of what ICT is about. As a consequence of this, the outcome of most initiatives taken by supporters (private sector and donors) is that the available funding is used for investments in pure technology (computers, networking hardware). In these cases the com-

puters just replace the typewriters or in some cases even complement them, creating an additional moment of work, as the formal process still presumes the use of typewriters.

Trying to accomplish comprehensive development programs such as modernization of the governance, reengineering of processes or implementation of e-Government will not be successful under these circumstances. It has proved that it is generally not possible to implement a program or a project of this kind within an organization where there is no obvious demand for the result of the implementation or where there is little or no awareness about the subject or the objectives.

Thus major efforts have to be made to change the attitudes of civil servants in charge in order to make them understand overall potentials of ICT and particularly the dependency between the processes, the systems, information management and ICT.

5.2.2 ICT maturity among users

As described above the penetration of PCs is low in Vietnam and that is also the case in the scope of the public sector. Consequently there are only a few PC users within the public sector and the ICT maturity is very low. The description of the situation concerning general ICT awareness, skills and attitudes on the management level do not either create a good base for building of skills and training on the user level.

However, on the positive side there is the general level of education among civil servants in Vietnam. A majority of the civil servants are well educated, many with academic degrees, and this is a good base for further training in ICT-related matters. The knowledge and skills in ICT from the users' point of view should not be technically oriented, but they should rather be business-oriented. In this perspective a good formal education within the appropriate subject area is a big advantage.

It is obvious that the implementation of ICT-based information management and e-Government is a long process (several years) and, therefore, there will still be time enough to train the staff and create the right attitudes. This is true only provided the training process can start immediately and it focuses on business oriented ICT training and not training in ICT technology.

5.3 Level of Automation

Although ICT during the 10 past years has been a main focus area for several development initiatives and programs initiated by the Vietnamese government, the progress in terms of increased automation and rationalization of the administrative work has been limited.

One reason to this has been the serious lack of funding but another is the lack of skills and capabilities to make investments in ICT productive as described above. Too often, investments have been made in technology (computers, networking hardware), without bigger consideration about how the ICT tools (technology) should be used to increase efficiency and effectiveness of the administration. As a consequence the working models are very traditional and the degree of automation in data processing and workflow management is low.

Most government programs, including donor supported, have focused on computerization, while there has been few programs in place, which utilize the available funding in a more appropriate way.

5.4 Systems and Data Registers

Most administrative systems within the public administration in Vietnam currently use data that is written and captured manually on paper forms and documents. Also main part of the systems in different parts of the administration are manual and the processing in the offices, including the interpretation of institutions and formulation of decisions is generally performed manually by the civil servants. When and if computers are used, they are mainly PCs used for word processing (data entry, editing and printouts). The output that is produced is stored as paper documents in card files for possible further processing. Information exchange, even within the same office is generally carried out by sending physical hardcopies from desk to desk and even the use of simple ICT solutions as shared hard disks and data storages is very limited. This is fortunately not the situation in all areas of the administration and significant steps towards automation has been taken in certain areas, e.g. within the Ministry of Finance.

Manual processing based on paper files consumes a lot of human resources for the management and execution of the administrative work processes. In a country like Vietnam this is currently not regarded as a real problem, as the labor cost is low and the supply of manpower is good. However, automation of data processing and work flow management within the public administration should still be considered as an important objective. Firstly, this is a key driver for improved transparency and better governance, secondly the level of manpower cost is likely to change dramatically during the coming years.

Because the data is stored as paper files in one single physical location it also prevents efficient collaboration vertically and horizontally as well as flexible service delivery to citizens and businesses. Additionally it opens for non-precise interpretations of regulations and institutions, which understandably affects the governance negatively and causes lower quality in the output of the administrative systems – i.e lower transparency.

The only computerized data registers on a national base so far are the registers of taxation identification numbers for businesses (TIN) and the register of import/export licenses.

5.5 Information Publishing and Dissemination

A low degree of computerization of the internal systems and data registers within the administration is an obstacle for electronic information exchange with citizens and businesses. When major parts of the internal data files and documents within the different sectors of the administration is stored and managed manually, it means another big manual effort to enter and edit the data for publishing as information for the public on a website.

Some ministries and agencies certainly have opened their websites for public information access already and some others have announced to do

so during next coming months. Similarly to the situation in every country where the building of websites recently has begun, the supply of information through the websites is still not as developed as the supply via traditional channels. This is valid as well from a quantitative as from a qualitative perspective. Further the advantages of an electronic publishing channel, such as the possibility to supply fresher information and interactive tools for searching and sorting, are not fully exploited.

Information and documents that are regarded useful by the SME businesses are currently offered for taxation, company registering and customs purposes, see below. However, lagging adaptation/adjustments of the legislation to new electronic processes prevents the businesses to take full benefits out of the offered services. E.g. all electronically downloaded documents have to be printed out and sent by mail to the agencies.

An issue of special interest is a new regulation effective from beginning of 2003, prescribing that the Ministry of Culture and Information must approve the contents of all new websites before it can be set up for public access. Being a typical bottleneck, this is a slow procedure, causing several months of delays. Also if the content is changed (excluding updates of current information) the ministry shall be informed. This is understandably not supporting the development of the attitudes required as a base for the ICT society in Vietnam.

On the contrary Internet domains can be registered electronically directly on the website of the MPT.

5.6 Basic infrastructure

5.6.1 CPNET

"…e-Government is set to become the largest market for the IT sector in the country."

2001, Chu Hao, National Steering Committee on IT

The GoV's Wide Area Network, named CPNET, was put into operation in 1998. The network makes it possible to exchange information, between state offices and provinces. CPNET has a backbone North-South with 64 KB, with about 35 ISDN lines linked to ministries. We had information that CPNET covers all 61 provinces and 52 central governmental offices, including a total of some 1000 LANs and 1200 servers, serving around 50 000 PCs[6]. These figures might be misleading, since it is not clear how many of these PCs that are connected to the Internet or even networked (LAN interconnection). Quite on the contrary, the World Bank came up with a totally different figure in their study[7] done last year, mentioning only 2% of 250 000 professional civil servants having a PC connected to CPNET, most of them on central level. The bandwidth of CPNET typically various from 64 kbps at some the national level sites to low-speed dial-up connections at many of the provincial sites. Even so, many provinces have expanded this down to district and commune levels.

[6] Information given by MPT

[7] Accelerating ICT development in Vietnam, June 2002

The overall impression is that CPNET is far too incomplete being the public administration's national ICT backbone system, and still provides very restrictive access to the Internet for civil servants in number of users and bandwidth. The actual networking facilities between locations and administration units need substantial upgrades.

6.6.2 Databases

The development of six national databases has been going on during the past years. In fact, most of them were started during 1996–1998, when these projects completed feasibility studies and first phase. Since the end of 1990s the databases remained with little further development. For instance, according to latest claim from PAR project of the MOHA, the project to develop database of this Ministry did not go further by the end of 2000 and the new project has to start again in an attempt to create a new database for government officials. Similar situation occurred also with other database projects. Only with the 112 project, the development of national databases have received priority again.

Currently, the 112 project is investigating and updating status of these databases together with implementing agencies in order to revise them to suit the needs of new administrative structures and make them fit into the context of recent technology development. Today, there are eight national databases:

1. National database on finance and state budget

– Ministry of Finance is the implementing agency. Content includes budget system, reserve system, taxation system, development investment system, system for management of capital and assets in enterprises, financial-budget support to policy making process, with some components such as input-output for expenditure, tax payers.

2. National database on socio-economy

– General Department of Statistics is the implementing agency. A website for statistics, and introduction of some statistical sub-systems in industry, agriculture, trade and pricing.

3. National database on legal and regulatory documents

– Ministry of Justice is the implementing agency. The website of the database is Lawnet.

4. National database on Government's officials

– Ministry of Home Affairs is the implementing agency. Content on government officials and people who are eligible for special treatment in policies. Creation of information and data centre of the Ministry (used to be Committee for staff of the government).

5. National database on population

– National committee for population and family planning is the implementing agency. Focus has been to identify criteria and parameters of the data and the design of a system to collect population data.

6. National database on land and natural resources

– Ministry of Natural Resources and Environment is the implementing agency. Content is data on geography and maps and land resources, pilot link between central and province levels, implementation of

software FAMIX and CADDB (part of PAR project in Quang Tri).

7. National database on import-export information

– Ministry of Trade in cooperation with Custom Department is the implementing agency. Part of the system is a trade statistic system (started already mid 90s in collaboration with Swedish Custom (Sida funded).

8. National database on secured transaction

– State Bank is the implementing agency.

5.7 Sector-specific snapshots

5.7.1 Taxation

The authority in charge of Taxation is the Ministry of Finance. The General Department of Taxation is sort of a "leading edge" agency in terms of modernization of the administrative processes and ICT implementation. The agency implemented already in 1996/97 a computerized register of organization numbers, the Taxation Identification Numbers. This is a register on a national base holding registry data on all Vietnamese businesses, which are paying tax to the government. Many taxation divisions within of the Peoples' Committees can currently access this register electronically. The only drawback with this register, seen from the perspective of the businesses, is that this is not the one and only register where businesses have to register. Similar data has to be provided also to the Ministry of Trade and to the customs department within the same ministry in case of a business dealing with imports or exports.

The taxation of citizens in Vietnam is based on a source taxation system. Each business acting as an employer withdraws an amount of source tax from the salaries it is paying to its employees. There is a certain progression depending on the amount of salary paid but the progression is not depending on the economical status (income per year, assets etc) of the employee. Thus there is no need for a national population register in this context. In other countries, however, the need to keep track on individual taxpayers has been one of the drivers for a national population register.

In terms of information dissemination to the businesses and citizens the taxation authority is one of those who provide a website. Currently the contents are a limited presentation of the institutional taxation framework, some forms that can be downloaded (for printout) and some general information about the agency.

5.7.2 Trade Registry

The responsibility for the registration and commissioning of businesses has recently been moved to the Ministry of Trade.

As for most other government sectors the public services and the operational work is carried out by the trade divisions under the Peoples' Committees in the regions. On regional level, the trade divisions of the Peoples' Committees currently maintain company registers as traditional paper files. Registration of a start-up business needs to be made for two different purposes; establishment and commissioning. The procedure is slow and the start-up has generally to wait for up to 6 months for the decisions.

The website of Ministry of Trade offers both general information about legal frameworks and downloadable forms for printout.

5.7.3 Registers of land and housing

In Vietnam the land is a property of the state. Citizens and businesses which need land for housing, farming, office or industrial use etc. apply and purchase Land Use Certificates.

The responsibility for the registers of land use certificates and houses / real property respectively built on the piece of land, are split on two ministries. While the Ministry of Natural Resources and Environment administers the use of land the Ministry of Construction administers the real estate / houses.

The appropriate divisions of the Peoples' Committees administer the registers of land use certificates. All registers are manual based on paper files. Currently appr. 70% of the agricultural land is registered while only 30% of the forests and less than 10% of the urban areas. Based on the registration citizens and businesses are provided with certificates; the so-called Red Book for rural land and the Pink Book for urban land.

The Land Administration Reform pursues to set up a national register on land use, but it is restricted to the rural land.

In order to provide better access for citizens and businesses in major cities like Hanoi and HCM City, local authorities, called Department of Land and Housing, has been established. They are in charge of the registers of both MoNRe and MoC respectively.

5.7.4 Healthcare

The Ministry of Health administers the healthcare sector. Within this sector the biggest hospitals in major cities are quite developed ICT users. Those hospitals utilize ICT both as an operative tool integrated in the medical treatment systems and as an administrative tool. According to available information from the Ministry of Healthcare up to 90% of the "bigger" hospitals use computerized enrolment registers. In smaller hospitals the enrolment registers are still based on paper forms and filing.

No national registers exist. The ministry, however, collects the patient files (both on magnetic media and as paper files) on an annually regular base, but no compilation and consolidation of the fragmented collected data is understandably performed. Although the patient data from the bigger hospitals is delivered in machine-readable formats, compilation cannot be done due to different terminology and different data formats.

Information exchange inside the agencies and offices and especially between central, regional and local levels of the healthcare administration is slow as it is mainly based on exchange of manual files and documents. Basic networking infrastructure, such as LANs within the different locations and a WAN for communication between the locations, is missing. Consequently there are computerized services for internal information dissemination and exchange. Email is used on a case-by-case basis, and access is provided by public ISPs.

The healthcare sector does not offer a website for information dissemination to citizens and businesses.

5.7.5 Social security

The social security for people employed by public administration and state owned companies, appr. 14 millions, has previously been administered by the Ministry of Health. In 2002 this responsibility was moved over to the Ministry of Labour, Invalids and Social Affairs. There is currently an initiative, which would provide the real poor, appr. 14 millions, a limited, but free social insurance. Current registers are on paper files and contain data on the 14 million public employees.

5.7.6 Labour market

The Ministry of Labour, Invalides and Social Affaires head the administration of the labour market.

Few measures have been taken so far to improve the labour market using ICT. In general, labour market institutions need to be strengthened. The WTO accession and the bilateral trade agreement with the US provide incentives to support a growing, but still limited, private sector in Vietnam. Sida is currently not supporting the development of the labour market through any programs.

5.8 Situation at the Provincial Level

5.8.1 Quang Tri

General impressions from the visit conducted 2003-10-15–16

The Provincial Peoples' Committee administers the public administration in the Quang Tri Province. The committee is the host for a number of departments, which are in charge of the administration on regional level, see also above. The department structure reflects the organizational structure of the central ministries but the department has no direct reporting responsibility to the central ministries. Some departments have division also on the district level (8 districts) and a few are even represented on the commune level.

The first impression is that the cross-departmental communication and information exchange seems to work quite well. The representatives of the different departments seem to have a very clear view about activities within other sectors. The highest management level of the committee obviously also is well aware of all ongoing projects and programs and the coordination and planning of them appears to be quite well managed. Partly this is of course due to a small size of the administration in this province but it still gives an impression that the management within the committee, despite of very small resources, are really committed to plan and execute agreed programs and projects as efficiently as possible.

Another impression is that the managers in the province seem to have a more process-oriented view on the administrative workflow than their peers on central level. Process development was frequently mentioned as a mandatory activity prior to applying ICT and even the ISO 9000 quality concept[8] was mentioned as a possible tool for process analysis and development within the public administration.

Concerning progress in terms of ICT use and implementation the problem is understandably lack of funding and resources. The networking infrastructure, which has been built since 2000, is now characterized

[8] Ho Chi Min City has certified some of its administration processes according to the ISO 9000 concepts.

by fragmentation; there are islands of local area networks interconnecting PCs and servers within different physical locations but the necessary bridging between these local LANs is totally missing. Computerization of registers has also started in 2000 and the estimate is to have all local registers computerized in five years. This is a big challenge since only appr. 20% of the register data has been computerized as to date.

The only program studied more in detail was the PAR pilot project aiming at reforming the land allocation process. Other programs/ projects were referred to and briefly commented on during a general briefing arranged by the management of the Peoples' Committee and with participation from 4 different departments.

Development of the registration process of land allocation

Implementation of the PAR pilot project aiming at reforming the land allocation process demonstrates how big success can be achieved by the combination of thorough planning, a working cross-organizational collaboration and a little help from a donor, i.e. Sida. The project is a typical "one-stop-shop[9]" pilot, the objective of which is to reduce the number of stops the citizen had to pass when requesting a land use certificate.

The project started in 1999 and is intended to continue until April 2004. The effects has been evaluated 6 months after the new process was launched to the public:

- Citizens in rural areas has now to do 3 visits at 1 "door" instead of 8 visits to 4 "doors", while the processing time has been reduced from 90 to 13 days
- Citizens in urban areas has now to do 3 visits at 1 "door" instead of 12 visits to 6 "doors", while the processing time has been reduced from 91 to 23 days
- 63% of urban land is now registered in the area (2,8% in 2000)

The project consists mainly of process development. Citizens have still to visit the local office personally and all documents used are paper based. The result however is stored in a computerized register. This register, hosted by MoNRE, is a national register over the use of land, which is intended to cover all urban, rural and forest land in the country.

Although the project has been very successful, the project management has exposed a number of obstacles:

- A legal framework designed for traditional, "stove-pipe" thinking
- Skills level of staff
- Information quality (mainly manual registers)
- Lacking networking capabilities

[9] "One-stop-shop" refers to an arrangement where the complete range of services related to a certain matter are provided to the customer at a single location also refered to as a "door". Consequently it means that the service provider has to take all necessary measures in order to collect the different components forming the service (e g information) from different sources all around.

The legal framework issue is a common challenge to all countries, which have not yet adapted their legislation and regulations to e-Government. Improvement of the skills level of the staff is an important objective and this is addressed the Sida supported project on Personnel Management Information System, PMS[10], within MoHA. The PMS database will be suggested to OOG (project 112) as one national database (instead of NDB on government officials).

The lack of information quality and the shortage in networking capabilities are more serious problems. The information quality is low because all captured information is paper based. To change this, major development efforts will be needed on a national base. Lacking networking capabilities is currently a problem for this project mainly on provincial level where there is a need to communicate and exchange information between provincial, district and commune levels. In the future there will be demands for a much better bandwidth in the communication with the central database and also for information exchange over provincial organization borders.

Observations

As described above the objective for this project has been to develop the process. Next step could be to implement more automation but this raises an inevitable question: are the prerequisites for automation in place? The answer is no.

A glance at the presented effects of the process development – 3 visits at 1 "door" instead of 8 visits to 4 "doors" for habitants of rural area or 3 visits at 1 "door" instead of 12 visits to 6 "doors" for urban people – is impressive but they do not tell the truth. What in fact has been done is to establish a combined "door" for matters related to land administration, taxation and construction. By this, the number of "doors" has decreased by 2, which leaves rural habitants just with one single "door". This is claimed to be true also for urban habitants but it is not really; there is upfront requirement that the urban applicant provide the single "door" with all basic registry information that is needed for the submission of the registration and if the applicant does not have this information available, he must probably get it from same three doors as before. They are the registration office on street level, the employer organization and the registration office on town level, just as before.

A true one-stop-shop implementation would mean that the applicant can enter the combined "door" without providing any basic registry information into the office himself. Instead it should be a task for the office itself to collect the needed information from the external registers where it is stored on behalf of the applicant. Future digitalization of the customer interaction (over Internet) will inevitably require reengineering of the process as described above.

The reason behind this "mistake" is understandably the fact that the main part of registers in most government offices still are manual and, in addition to that, no networking capabilities are available. This demonstrates that a proper implementation of one-stop-shopping, although the

[10] PMS system is now running in around 51 provinces. It includes "CV" content on approximately 1 million civil servants out of a total of 1,6 million (nationwide).

customer interaction still is managed through personal visits, puts strong requirements on the availability of computerized registers. It also puts even harder requirements on cross-organizational networking to support successive computerization of registers all over the public administration.

Another obvious "mistake" that must be changed is that the civil servants dealing with the new land administration process still are requested to maintain the paper-based filing of records in parallel with electronic filing on the computers. The official reason is that the legal regulations still require paper files as "back-up" to the electronic ones and that signatures and stamps must be applied manually. This is a serious obstacle, which generates an unnecessary workload and prevents the expected change in attitudes among civil servants, although they are trained and enthusiastic to new ways of working.

Identified needs

The Peoples' Committee prioritized areas, which would be potential areas for funding and support from Sida are as follows:

1. Implementation of PAR incl.
   - process analysis and development on provincial and district level
   - formulation of ICT implementation strategy
2. Development and implementation of networking infrastructure to interconnect the LANs of different departments with each other on provincial, district and (commune, later) levels respectively
3. Internet to all schools

6 The Public Administration – Planned development

6.1.1 The Public Administration Reform, PAR, 2001–2010

The PAR master program, and seven subordinating action programs in four focus areas, guides the re-engineering of the public administration.

Focus area	Action program (AP)
Institutional Reforms	– Improvements to the development, issuance, and quality of legal normative documents (AP No.1)
Reform of the Organizational Structure of Public Administration	– Improvements to the roles, functions, and organizational structures of agencies in the administrative system (AP No.2) – *Modernization of the administrative system including computerization and e-government (AP No.7)*
Improving the Quality of Public Officials	– Rightsizing of the civil service (AP No.3)o Salary reforms (AP No.5) – Training and retraining to improve the quality of public officials (AP No.4)
Public Finance Reforms	– Improvements to the financial management mechanisms for administrative and public service delivery agencies (AP No.6)

Figure No 3, PAR Master Program

6.1.2 Project 112 (SAMcom), 2001–2005

The modernization of the public administration is within the framework of PM decision 112 (therefore it often goes under the name project 112). Under the PAR master program this component is referred to as action program No 7.

The total estimated cost for the modernization component is 60 MUSD during the period 2003–2005. ADB provide financial support to the program, but not covering the total needs, see 6.2.2.

A substantial upgrade of the CPNET is part of the plan. However, a major part of the implementation up till now has been pilot projects in order to evaluate how technology and information systems can support

the organizational workflows. The impression is that the implementation has not really reached momentum, and that resources are still scarce to actually put plans into practice.

The main responsibility to coordinate project 112 implementation is with the OOG. There is an executive steering committee with representatives from MPI, MoF, MoHA and MoST (note: MPT is not yet a member).

Many regard project 112 as top down. The project is extensive and the implementation has not yet reached momentum[11]. ADB is a key partner and provide major financial support to the program and OOG, see 6.2.2.

6.1.3 The e-Government Master Plan

The newly established Ministry of Posts and Telematics, MPT, is also looking into the developments of e-Government, being the policy-making and regulatory body for ICT. The National Institute of Posts and Telematics Strategy, NIPTS, which is part of MPT, is working on a "roadmap" for the introduction of e-Government. However, it was not clear exactly how this MPT initiative relates to project 112 (under the auspices of OOG) or where the mandate comes from. The impression was that MPT feels a responsibility to plan for the overall introduction of e-Government, while others imply they should focus primarily on creating an enabling environment for development of infrastructure.

There is a National Steering Committee on ICT (actually a steering committee on the implementation of directive No.58). The committee should be a coordinating body to link all interests of various ministries. The committee was put within the structure of MPT and has somewhat been sidelined by MPT in various issues.

6.2 Development Programs Initiated by Donors

6.2.1 UNDP Program Framework on ICT for Development 2003–2005

UNDP has supported the integration of ICT into a number of its development projects since early 1990's. Examples of such projects are Disaster Management, Strengthening Legislative Capacity of the National Assembly and the HCM City Pilot within the PAR program (see also below).

UNDP intends to continue funding of ICT integration within its project activities. However, the efforts will be more focused on funding strategic policy interventions with big downstream impact as well as on applying ICT as an enabler for development instead of supporting basic computerization. The objective is to create earning opportunities and jobs, improve dissemination and access to public information, enable information and knowledge sharing, increase transparency, accountability and effectiveness of institutions, by deploying ICT strategically. UNDP call this program ICT for Development, ICT4D.

UNDP thus intends to focus its cooperation within the ICT area both to strengthen the focus on human development and to support ICT for development of applications.

[11] No project web-site providing information on progress and activities is available.

UNDP's support to the PAR program

UNDP is actively supporting the implementation of the PAR program. Examples of PAR-related development supported by UNDP are the Online Business Registration pilot in HCM City, which is already almost completed, and the recently initiated efforts within the Ministry of Home Affairs to improve information dissemination, marketing and communication of the PAR program and its sub-programs. Besides UNDP, five different donors, Sida, Switzerland, Norway, Netherlands and Canada, back up the MoHA activity.

The Online Business Registration pilot in HCM city applies the "one-stop-shop" model for online business registration over the Internet. The achievements have been very encouraging for further implementation in other cities, as the previously time-consuming and boring manual registration procedure, consisting of many visits to many "doors" during a period of 2–3 months has been simplified to a single web-based session. The launch of this application has even contributed as a driver increasing the Internet penetration among businesses in HCM city, which by now is appr. 30%. The success has promoted a number of other agencies in the city to urgently complete their websites designed to provide individuals and enterprises with online information and new "one-stop-shop" pilots has already been initiated for online application of land registration and construction licenses. Understandably the back-office workflow has not yet been fully automated, as many records and files still are paper-based, but from the customer's view the result is already very good.

As part of this project UNDP also supported the piloting of ISO 9002 for delivery of public services in HCM city, District 1. The appliance of a quality concept in order to define and improve the service delivery, proved to be an efficient tool for demonstrating the importance of an efficient process among the civil servants. The pilot got lot of attention among stakeholders both in the HCM area and all around the country and several workshops has been arranged to share the experiences and lessons learned.

The targets are to give the PAR program more attention in mass media, produce printed folders and brochures, arrange media sessions and press conferences, develop a website with interactive information etc. For example there will be a 15 minutes info-spot on TV every week. Another target is to activate the citizens and businesses to give more response and input to the PAR program.

UNDP also support the overall coordination of the National PAR Master Program across ministries, directed by the OOG.

6.2.2 Asian Development Bank

ADB provide a 45 million USD loan to support the implementation of the first phase (2003–2005) of the public administration reform (PAR) master program in the 2001–2010 period[12]. The target is set on two of the PAR master program's seven action programs, one of them being action program No.7 on modernizing and computerization of the public

[12] See www.adb.org/Documents/RRPs/VIE/rrp_vie_35343.pdf

administration, i.e. project 112. Thus, part of the loan will target development of e-Government activities. The objectives with the support to action program No.7 are

1. enhancing productivity and work efficiency of the administrative system at all levels
2. establishing appropriate legal frameworks to support the computerization of state administrative management and e-government
3. strengthening capacity in ICT management, planning, and support
4. strengthening capacity in ICT systems development and implementation
5. progressively building-up computerization of state management and e-government, with benefits and services to the citizen, business, public employees, and other government agencies
6. establishing an integrated computerized network from the central level to commune level administration.

ADB will consider further support for a second (2006–2008) and third (2009–2010) phase, should the results from the present program be satisfactory. See also appendix 4, Project matrix.

In addition to the loan, ADB has agreed to provide substantial support in the form of technical assistance, amounting to more than 120 man months until 2005, in the area of e-government[13]. The TA will assist OOG in strengthening its ICT systems development and management capacity for the effective implementation of project 112. The TA aims at: [14].

- building a strategic policy and legal framework for modernization of public administration, including a detailed plan for e-government
- strengthening capacity and technical skills for analyses and design of work methods and processes
- establishing standard practices and procedures for computer system planning, operation, and maintenance
- establishing standard methodologies and procedures for systems development, project management, quality management, procurement, and auditing
- assisting the Government in undertaking training needs assessments

OOG is the implementing agency for the activities under action program No.7[15].

Presently, ADB is the major international donor that support GoV in their ambition to introduce e-Government. Sida ought to liaise with ADB on the development of e-Government in Vietnam to investigate on possible joint actions or complementary support.

[13] The project "Support to the Office of the Government in the Implementation of Administrative Modernization, including Computerization and e-Government Initiatives" (1 270 000 USD)

[14] Excerpt from ADB web-site, www.adb.org/Documents/ADBBO/AOTA/35343052.ASP

[15] ADB, Danida and others also provide significant support in strengthening OOG's advisory capacity in national-level policy coordination, see www.adb.org/Documents/ADBBO/AOTA/35343042.ASP and www.dk-n.dk/support_reform_projects.htm

6.2.3 World Bank Group

One of the areas for WBG support is promoting good governance, the Bank will focus its support on helping the Government improve public financial management, information and transparency, and to enhance legal development. Major technical assistance will be provided in each of these areas, and projects will be developed in Public Financial Management, *e-Governance*, and possibly legal development[16].

6.2.4 Other

CIDA has provided support under its Policy Implementation Assistance Project II, where the Vietnam-Canada Information Technology Project (VCIT, 1996–2001) focused on building government policy-making capacity in IT. The goal for this component was to improve the legal environment to create favourable conditions for ICT use and development, including recommendations on e-government-related laws, policies and regulations, as well as substantial training activities in Information Management Systems and IT for chief information officers. The component was being implemented through MoSTE (now MoST)[17].

[16] www.worldbank.org.vn/strategy/bankpro.htm

[17] Information from USAID/ICT assessment report, 2001

7 Conclusions of Findings in Areas of Special Interest to Swedish Development Cooperation

7.1 Public administration in general

The current Vietnamese e-Government program (the SAMCom effort) appears to only address the G2G element, *by focusing on building links within ministries to the provincial level.*
This will have positive internal communications efficiency effects, but will not yield benefits in the important areas of business growth, "demand-pull" on society to use ICTs, transparency, improvement in citizen understanding of government programs, and citizen feedback on program operations.

The Word Bank, 2002

If ICT should be integrated into the endeavors to develop and enhance the efficiency and transparency of public administrations, the concept to look at is e-Government.

In the World Bank report, Accelerating ICT Development in Vietnam (June 2002) there is the following issue raised as one of three main constraints in e-Government in Vietnam: *"A tendency toward centralized, narrow, internal ministry-based approaches to problems that will likely inhibit the cross-ministerial, customer-oriented approaches needed for ICT solutions."*

The key issue is here to avoid solidifying of traditional, "inherited" processes and working models. First of all, effective use of ICT requires that all stakeholders perceive an attitude that information sharing is of good nature. The willingness to collaborate across boarders and in between levels of organizational structures is key to the success. Probably easier said than done, but the "stovepipe" syndrome must definitively be left to the past.

Secondly, in the wake of project 112 (SAMcom) it appears that there is a need to establish provincial G2C/G2B master plans for e-Government. A practical approach driven by the needs from "users" should be the point of departure. Such provincial master plans should take into account the requirements for the interactions with the local business community and the public, i.e. one-stop shop solutions for starting up business activities, land, property and construction issues and land use information, taxation services, local consultations on legislations, job application services, health services and health and medical information dissemination, etc.

As the needs to interact with the "customers" are outlined, the work on provincial and local level should focus on reviewing existing internal administrative work flows and strengthening of provincial and local institutions in this regard. In the World Bank report this is reflected by the statement that "*high interactivity (purchasing of items on line, feedback via the web, e-forms on line) needs to be added, and back office systems need to built to process the payments and new information f*lows".

To further advance in e-Government, the World Bank report mention that the provincial and municipal "*back office operations interoperate seamlessly with national level agencies*." This stage of e-Government will not be reach in the near future, but a continuous increase of the capacity on provincial level and propagation of IT based information management systems will prepare for this stage.

7.2 Private sector

Ministry of Trade is dealing with private sector and SME development. There is a program on e-Government in trade and support to make possible e-commerce. In general, the private sector have to strengthen their capacity in order to utilize Internet as a sales and communication channel to customers, partners and national authorities. More specifically, the support for the private sector development can be done mainly through the e-commerce component.

The GoV has the intention to facilitate e-commerce, however the realisation in the business sector is still limited. An e-commerce board has been installed under Ministry of Trade dealing with issues to do with the technical, socio-economic and legal structure necessary to stimulate growth of e-commerce[18]. Support and information to the business community is also provided through www.business.gov.vn, which is an attempt to provide access to efficient business registration procedures nationwide and allowing for comprehensive information dissemination.

Key issues needed to address in order to fully explore ICT as a comparative advantage for the SME sector are primarily specific legislation enabling e-commerce and a transparent business environment. Secondly, it is crucial to raise awareness among companies and support them to solve issues such as e-payments.

7.3 Healthcare

The principles stated and explained above should be valid also for this sector. There are also a number of sector-specific challenges, which must be addressed.

Firstly, the healthcare sector suffers from a very low general level of computerization. This is valid for all instances on all levels except for the biggest hospitals in the big cities, see above. Especially it is valid for the administrative units, which not are dealing with operational healthcare directly. It will be a big (financial) effort to change this by installing the required infrastructure consisting of PCs, servers and networking capabilities.

Secondly, most of the registers consist of paper-based records and files. Conversion (manual entry, scanning/interpretation, storing) of

[18] E-commerce development plan 2001–2005

these paper files cannot even start before there are PCs and servers available. The process is time-consuming and can be estimated to many calendar years.

7.4 Environmental and land management

The general principles of paragraph 7.1 should also be applied here. But exceptionally in this area the development of processes and working models appears to be going on as a good base for further automation.

The PAR pilot in the Quang Tri area aiming to reform the land allocation process is a very positive exception to the straightforward, just technically oriented computerization within other sectors. The pilot has also been noticed and the progress appreciated by other provinces that would like to conduct similar projects. Thanks to this the government has decided that similar development shall start in four other provinces while a number of interested provinces still are kept waiting.

7.5 Justice

The Ministry of Justice has a very special and important role concerning the implementation of the PAR program. The ministry has a typical role as an enabler of the modernization and thus also the ICT integration further on.

The administration cannot be modernized without adjustments, changes and additions to existing legislation and legal frameworks (institutions, regulations, directives, decrees). A modern administration must use ICT-enabled tools for information and knowledge sharing and it must not only accept but even encourage to electronic information exchange and interactions with citizens and businesses. This requires immediate measures in order to change existing legislation in such simple matters as mandatory use of certain paper forms (instead of digital), mandatory signatures and stamps (even where any signature or stamp reasonably would not be needed) and so on.

It might also require adjustment regarding boundaries of mission and responsibility between current stovepipe oriented sectors within the public administration.

8 Potential Areas for Integration of ICT

8.1 Democratic Governance

Good transparency of the public administration, its processes and its institutional frameworks are key to an effective use of resources (financial, human resources) that are made available for the country and its government. Good transparency can be achieved by good governance only. In a transparent society the processes and the institutional frameworks of the public administration must be designed and managed in accordance to the rule of law. Thanks to the transparency citizens and businesses will have the opportunity to follow and keep themselves informed about the progress and the decisions of their individual applications for commissions and other business cases with the government and it should be easy to find out if some mistakes has happened in the work flow and decision making.

Implementation of well-designed ICT solutions to support properly designed information management for properly designed processes and properly designed institutional frameworks *will radically improve the governance* (which will secure good transparency etc. etc.)

Implementation of ICT to support improved governance is one of the corner stones of e-Government. This in turn may produce effects, which can contribute in poverty alleviation.

8.2 Poverty alleviation

Access to relevant information has the potential to transform economic opportunities and improve the livelihoods for rural households. Access to information can do this by facilitating improved farming techniques, improving crop selection in response to market information, reducing exploitation in pricing, improving efficiency of transportation, improving access to financial services, creating new possibilities for trade, and improving delivery of health and educational services.

The ICT components in this regard are primarily two, (i) support the implementation of access points such as community telecentres or the further development “cultural information centers” and (ii) introduce concepts of knowledge networks where information on various topics could be disseminated and exchanged between locations and between subject experts and the poor.

8.3 E-Government

Crucial to understand about e-government is that there are important dependencies and relations between the three pillars:

– improved customer or user interaction and service delivery,
– improved collaboration, horizontally and vertically, and
– improved internal processes (and institutional frameworks).

Just to give an example, consider the expression “one-stop-shop”. Most people think this is something that just has to do with the customer/user interaction, i.e. to provide a common interface, which offer the customer a means to deal with several governmental functions in an efficient and simple manner. What they do not think about is that the common interface just is the “window” of the one-stop-shop government. To be able to really provide the services according to a one-stop-shop philosophy the government agencies, which are involved, have to coordinate their work and reengineer their business processes. In countries where the government offices have built their IT systems a long ago, the process renovation often even means basic renovation or renewal of existing IT-systems. This is a huge effort compared to building the single customer interface.

Very few of the e-Government programs have focused on process development, although this actually should be the initial focal point (see below). The reason for this is that many processes do not comply with the organizational structures, and because of this a certain organization by itself does not have the mandate to grasp and drive this issue.

Therefore, in developing countries where the development of the e-Government can start building from an “empty table”, efforts should be completed according to a proper sequence or roadmap, which pays attention to internal dependencies between the efforts.

1. The existing processes of each ministry or government sector should be analyzed and documented
2. Government offices should be categorized and grouped in clusters in accordance to their assignments and service responsibilities seen from a customers (citizen, business) point of view – focus should be to form clusters of agencies which later should be collaborating in providing one-stop-shop services to their customers
3. Based on the process analysis performed in each agency, border-crossing processes should be identified and documented
4. Based on the process analysis made, prioritization and selection of processes for automation should be made – attention should be paid to the need of adaptation of the institutional framework of the processes selected as candidates for automation
5. Information management should be designed for selected processes
6. The customer interaction methods (visit, telephony, internet) should be selected designed – in many cases the customer interaction via physical office visits or conversation over telephones is good enough at least in the beginning (and even the only possible as the internet penetration still is very low

7. IT applications, databases and interfaces should be specified
8. Procurement of the components and the development and integration efforts can start
9. Implementation of the system is planned

This description is intended to give a brief description of the efforts, which need to be done as part of the implementation of ICT and e-Government. Although the described sequence of efforts appears to be complex, a step-wise implementation proofing the concept by building pilot functions and services in thoroughly outlined areas are surely a feasible approach.

8.3.1 Opportunities and challenges

Referring to above, the major opportunity is that the planning and design efforts really can start from scratch, almost without any demand to pay attention to existing systems and solutions. This is a big advantage compared to the e-Government efforts carried through for example in European countries, where more than 50% of the efforts needed for e-Government implementation are consumed by renovation and rebuilding of the legacy systems to make them fit a new collaborative model for processing and information management.

Another opportunity is to utilize available best practices and experience from e-Government implementation in developed countries as the base for development of a customer-oriented, efficient and effective public administration of Vietnam, which can provide qualitative and responsive service to citizens and businesses, based on transparent and easy-to-understand institutional frameworks.

SWOT on the implementation of e-Government (integration of ICT)

Strengths: – High-level commitments (#58, #112, #136) – Small spots of excellent skills	**Weaknesses**: – Current "Business culture" within public sector – Lack of awareness of E-Gov in organizations and local admin.
Opportunities: – An "empty table" enables starting from scratch – To efficiently deploy the ongoing PAR program – Strong donor support	**Threats**: – Attitudes to information sharing – Resistance to change – Organizational structures and decision making processes – Focus on "boxes"

Figure No 4, SWOT on the implementation of e-Government

The major challenge in the short term is to coordinate all on-going activities. Available resources and skills in Vietnam are very limited in terms of planning and implementation of e-Government. The demand for thorough planning, coordination and management always arises when the available resource is small.

Currently there are a number of more or less competing initiatives in different parts of the Vietnamese public administration, i.e. the ICT-oriented activities in action plan No 7 of PAR, various “local” 112-projects, the e-Government strategy initiative within MPT as well as other ministry-specific projects and programs. Without a good coordina-

tion and leadership there is a big risk that the efforts made do not generate any substantial progress or effects.

Another challenge is to make involved organizations, their management and involved human resources aware of the fact that e-Government is more then 80% development of working models, business processes, institutional frameworks and information management while the pure technology-oriented efforts (software development, procurement, configuration and installation of HW) are less than 20% of the entire efforts needed.

A less satisfactory circumstance is the prevailing attitudes against information sharing. Training and awareness programs must address this issue in order to encourage and award information and knowledge sharing. The resistance to change has to be dealt with mainly within the PAR program.

8.3.2 Strategy for planning, development and implementation

The basic rule, according to lessons learned and experiences from other countries in terms of e-Government implementation, is to secure *proper overall planning as well as management and coordination of the implementation* of the different sub-areas and projects included in the development and implementation program. Although it is favorable to proceed step by step, targeting on tangible, measurable outcome from each single effort, the need for overall planning, management and coordination of the entire program and the sub-programs included is essential. The reason is a strong dependency regarding time and functionality between different sub-areas, almost regardless of how they are outlined and selected.

One example is that any local or central information resource (database) should not be designed and implemented before there is an agreed overall information architecture, which secures that all potential users will be able to access the database, and of course not before there is an agreement on technical formats and interfaces to be used. Another example is an information database, which is to be used as a shared resource within several ministries or the entire public sector, should not be launched before there is a common networking infrastructure in place, which allows all potential users to access it.

Failure to manage that activities in different areas are carried through in accordance to decided roadmaps, will probably cause potential users to “leave the ship” and to initiate own competing development activities in these areas. On longer terms this leads to a total mess and breakdown of the overall program. The “not-invented-here” tendency has a strong impact and should not be underestimated as a serious risk.

8.3.3 Why should Sida invest in e-Government

The implementation of the PAR is a true challenge. Referring to chapter 8.1 properly implemented e-Government has a big potential to improve governance and transparency. This, in turn, would have positive influence on improved democracy and poverty alleviation. However, some prerequisites for achieving expected results are missing.

Although there are in fact small spots of excellent skilled people and the basic (academic) education level is generally good, there is a serious

lack of understanding of the e-Government concept and how it should be implemented. Furthermore, the common IT maturity among the civil servants is low. The "business culture" within the public administration efficiently rejects the streamlining of institutional frameworks and processes that are needed to obtain good governance as a result of the computerization. It is also evident that many fear the effects from the reform. E-Government as a "buzzword" and headline for a development cooperation project, would obviously have the potential to act as an excellent "cover" even for the significant development of institutional frameworks and processes, which otherwise would be rejected by the current management of the agencies.

To increase the possibilities for a successful implementation of e-Government in Vietnam, it would be highly relevant to discuss interventions by Sida, which would:

– contribute in merging the overlapping programs in to one properly planned and managed program, (refer to 8.3.1)
– strengthen the "social capabilities" in e-Government projects; 112 project (OOG) and e-Government strategy (MPT)

Figure No 5, a proper mix of technological and social capabilities as the prerequisites for success

Sida should also create an awareness program on the concepts of process development, business re-engineering, information management and e-Government and provide a general training to their own staff, consultants and counterparts on these subjects. By this, the planning of new programs would by default pay sufficient attention to and even support forthcoming implementation of ICT and e-Government concepts. This would be particularly significant in programs aiming directly at improved institutional capacity and governance of the public administration.

A major part of Sida's development cooperation worldwide already takes places in the public sector, including both organizational and institutional development. Therefore, there are many reasons to increase awareness and train Sida program officers in the field of e-Government, both at Sida headquarter in Stockholm and in Sida program countries. Mainstreaming ICT in the public sector development is in fact equal to the implementation of e-Government and it would most certainly prove to be rewarding if Sida could increase the importance of the e-Government concepts in dialogues with program countries.

9 Recommendations

Below seven proposals for extended ICT-related development cooperation are described, in areas where mainstreaming of ICT could strengthen the impact of Sida's efforts in Vietnam. In line with the objectives of this assignment, the proposals are focusing on areas where mainstreaming of ICT is anticipated to give biggest possible impact on improved governance and poverty alleviation.

1. Create awareness of the concepts of e-Government (Sida-wide applicable)
2. Preparation of an overall plan for the design and implementation phases of the e-Government program
3. Support to the government program 112 on provincial level
4. Implementation of document management systems
5. Design and implementation of a cross-organizational intranet
6. ICT applications for poverty alleviation
7. Support the drafting of a national cyber law

All proposals describe efforts with potential to give tangible results, and will also have strong impact on the implementation of the PAR master program. Still they are quite different in terms of scope and scale. While the first is a pure awareness raising activity and the second and third deal with planning and co-ordination efforts, the fourth is a typical development project. The fifth addresses infrastructure deployment and the sixth proposes support to an ICT based application for rural development. The last one proposes support for a comprehensive new legislation for ICT.

The matrix below provides information on the eight proposals and their main target level, central or provincial, as the intention is here.

Proposal	Central level	Provincial level
Create awareness of the concepts of e-Government	X	X
Preparation of an overall plan for the design and implementation phases of the e-Government program	X	
Support to the government program 112 on provincial level		X
Implementation of document management systems	X	
Design and implementation of a cross-organizational intranet		X
ICT applications for poverty alleviation		X
Support the drafting of a national cyber law	X	

As has been mentioned under 6.2.2 there is a major initiative funded by ADB in the area of e-Government. At least any of the above proposals targeting the central level have to well co-ordinated with OOG and the ADB funded program. Knowing this, and taking into consideration Sida's development cooperation strategy with Vietnam in combination with our interpretation on the information on actual needs on the Vietnamese side, the recommendation is to prioritize proposals addressing the provincial level (aim at bottom up approaches in project design).

9.1 Create awareness of the concepts of e-Government

As mentioned in 8.3.3, in order to integrate ICT into a great deal of Sida's development cooperation, focus has to be business process re-engineering aspects. This module thus aims at introducing the concepts and gives the reasons behind e-Government. An appropriate term for this activity would be Information Management in Public Administrations (IMPA), since the focus must be on managing and sharing of relevant information across government boarders and between government and users (the public and businesses). We recommend Sida to develop a training module on, but not be limited to, (i) information management principles, (ii) eGovernement principles and (iii) best practices in e-Government and carry out such training to all stakeholders involved in development cooperation programs. This would lead to an enhanced dialogue on the issue of e-Government between representatives of the Swedish development cooperation and the national counterparts, thus creating the starting point for integrating ICT in various programs.

This module would enhance to the overall integration of ICT into development cooperation programs, and in particular those dealing with public administrations and institutional development.

9.2 Preparation of an overall plan for the design and implementation phases of the e-government program

On a central level there seem to be a need to harmonize ministerial master plans and provide support to the general coordination of e-Government[19].

Implementation of e-Government should be regarded as the single strongest driver for improved governance and transparency of the public

[19] Here it also crucial to coordinate donors' programs, also taking into consideration the major support provided by ADB.

sector and as a consequence of this for improved democracy. Implementation of e-Government will because of improved democracy also contribute in poverty alleviation but the impact will be more indirect. Referring to chapter 8.3, e-Government, cannot be implemented just by applying ICT, it will also put requirements on large-scale development and changes in working models and processes. This is on the other hand one of the objectives of the PAR program, which Sida already is supporting.

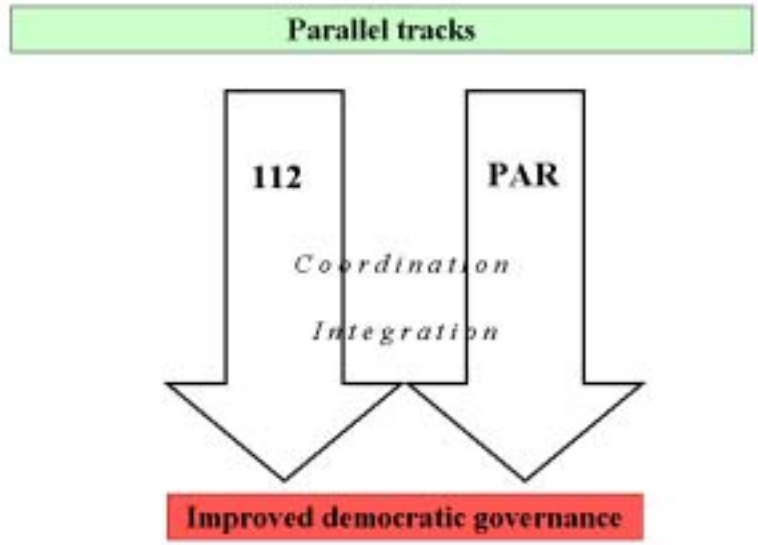

Figure No 5, Coordinated action between e-Government and PAR

As already pointed out, capabilities to produce an appropriate overall design and to plan for a coordinated and well-managed development and implementation of e-Government, are missing in Vietnam. Current Vietnamese e-Government implementation programs are fragmented and overlapping and overall coordination is lacking as a result of bad or missing planning and design.

Sida could strongly contribute to improved governance and transparency by supporting the Vietnamese government in the planning of the e-Government implementation. More exactly Sida should provide expertise and resource for following specific tasks:

– Coordinated planning and design of the entire e-Government implementation program. Exactly as a symphony, which has to be composed by one composer in charge of the overall outcome (and not by a number of independently working composers), the overall architecture and roadmap for implementation of e-Government must be designed and planned by a single "composer" (function, task-force). In this regard, technical assistance could be provided to OOG in managing project 112. However, the input from ADB TA is substantial and any intervention has to be coordinated. Sida should also follow other government agencies/ministries efforts in this field, such as the MPT.
– Management and coordination of development and implementation. A program office in charge of the implementation of the overall

program should be established and staffed with appropriate (international) expertise. The program office should also be in charge of the availability and dissemination of actual and up-to-date information about all on-going projects and activities within the program, their schedules and produced outcome.

– Planning for pilots and proof of concept. Identification of "killer applications" to maximize interest and "attraction factor" among citizens and businesses. Development and implementation of such well-outlined initiatives can be delegated to regional or local level, provided the program is properly designed and managed.

A leading principle should be to encourage:

– step-by-step implementation – request for measurable, tangible results
– learning by doing – propose and start strategic pilot projects
– development solutions which can prove the usefulness of different concepts and implementation philosophies

It should be emphasized here that OOG presently hold a key role in the development of e-Government in Vietnam with a specific mandate in this field.

9.3 Support to the government program 112 on provincial level

Parallel to project 112 central level activities (ref. ADB program loan), focus in the short-medium term should be to introduce the concept of e-Government on provincial level and prepare province and municipal public administration for e-Government. Preparations are made in the form of

1. develop provincial master plans for e-Government
   a. assess local needs for e-services (G2C, G2B interactions)
   b. perform business process analysis and design suitable work flows required to handle the interactions
2. develop appropriate administrative information management systems
   a. provide training
   b. provide input to system design activities
3. implement provincial G2G and G2C pilot project based on local needs

This module would also enhance to Sida's poverty alleviation programs, and could be focused on certain geographical areas, rather than a subject area.

9.4 Implementation of document management systems

Document management means applying ICT to automate the production, storing, archiving, searching and publishing of documents. The public administration deals with and uses a lot of different documents describing legal frameworks, guidelines and instructions with advice to civil servants dealing with the case management, decision making and delivery process.

Workflow automation means applying ICT to automate the workflow processes within departments and agencies. Workflow automation usually includes automation of the processing of the institutional frameworks and automation of the workflow of the case management, decision making and delivery process itself.

While automation of the workflow generally is more complicated and presumes in-house development of the appropriate software, document management can be provided by applying and adapting commercially available software products to support the specific document management processes in different parts of the organization.

A document management system is an effective and simple tool to improve governance and transparency by providing a tool that ensures that legal frameworks, guidelines and instructions automatically are formulated in a way, which corresponds to rule of law. This also has a positive impact on the transparency. Action program No 1 (and 7) within the PAR master program exposes the document management area as a key area in terms of improving information quality and credibility and sets clear objectives for the implementation of such functionality. Additionally a proper document management system ensures that issued legal documents always are the most updated.

Sida is already supporting the implementation of the PAR master program in several areas. Extended focus on document management would gain not only ongoing Sida activities but also give strong support to the implementation of the entire PAR master program.

Best way to proceed would be to outline a pilot project on this subject for a single ministry. Probably this would be the Ministry of Justice, where Sida already is involved in the support of the PAR program.

9.5 Design and implementation of a cross-organizational intranet

A government-wide networking infrastructure is the single most significant cornerstone for an improved, cross-organizational communication and information exchange. The networking infrastructure should be regarded as the "backbone" of the public administration. The current CPNET under project 112 address the network infrastructure component, however it is still poorly deployed on province level.

Networking capabilities form a base for the information society. In Vietnam where the impact of the public sector on the society is bigger than in many other countries, the public administration carries a big responsibility for leading the change towards the information society. An efficient networking infrastructure is not only an enabler for this but it can also be considered as a real driver, because of its potential to encourage people to communicate and exchange information and knowledge.

If networking capabilities are missing, good development initiatives taken in one agency/department of the organization do not gain other agencies/departments. This fosters internal competition and strengthens the "stove-pipe" structure of the organization.

From an ICT point of view lacking networking capabilities prevents the development of rational information management. The leading principle in modern information management is that information gener-

ally should be accessed at the source, i.e. the master database, and all sorts of intermediate storages should be avoided. This principle ensures that the information that is used always is fresh and updated, as all users access it for upload at the source. Failure to follow this principle has big negative impact on productivity because of the need for manual updates. It also disables cross-organizational use of computerized registers between central and regional/local levels as well as between departments on the same level of the public administration.

Implementation of the results from the Sida program within MoHA (PMS) and MoNRE (land use certificate "one-stop-shop") in other departments and provinces is efficiently prevented because of lacking networking capabilities. Implementation of appropriate information management within the GIS-program in Quang Tri also has to wait for a networking infrastructure to come in place.

Current situation in terms of networking within the public administration is not very clear but the general view is still that there are local area networks either installed or being installed within the different departments of ministries on central level and also within sector-specific departments on the provincial level. This forms a fragmented structure with a big number of "isolated islands", i.e. the departmental LANs. Obviously there are no or very few connections between the all LANs currently installed.

Implementation of ICT technology to interconnect all the isolated LANs to a public administration-wide network would strongly support the development towards information and knowledge sharing. It would also allow broader use of the results from the projects referred to above. Additionally it would strongly support the overall implementation of the PAR master program.

Sida could contribute by providing resources for the design phases of this public administration-wide network. A basic design principle should be to design an open networking infrastructure as a sustainable base for further enhancements when requirements arise (better security, improved bandwidth, support for value added services as electronic IDs, electronic signatures etc).

Sida could support the implementation by, for example, selecting a specific province as a pilot and then provide appropriate funding and expertise for the implementation in this predefined area. Networking capabilities will be crucial for further automation of the Quang Tri one-stop-shop pilot, and thus a well-outlined networking pilot, according to the description above, could be a logical continuation of the development cooperation in Quang Tri.

9.6 ICT applications for poverty alleviation/rural development

Besides working with e-Government on a local level enhancing for rural people to access governmental services, there are definitely also other concrete ICT applications that could be further explored to benefit the large rural population. One such application is to improve the situation for farmers through the provision of market and other general informa-

tion that would increase local revenues and develop farming techniques. This ought to be an important aspect knowing that most households depend directly from farming.

There exist an information system concept targeting rural farmers being developed by MoARD[20] and UNDP, see appendix 5. Sida could integrate those concepts into the poverty alleviation programs (Chia Se), with a focus to:

– create awareness about these concepts
– use the local development funds to finance village information access points, and
– use ICT based information systems to create sustainable knowledge networks.

Another initiative worth following is the "cultural information centres" that are now being set up. More than half of the 10 000 post offices in Vietnam have already been "converted" to such centres. The obvious advantage here is the possibility to jump-start as premises are already available, while the disadvantage is that the centres mostly become only "passive" information access points. Thus, mainly people that already have some awareness of Internet use them and there is seldom any specific community participation to amplify the local use of content etc. Sida could here once again consider to draw on the Chia Se program to support local user groups that could produce local content, community web sites and other means to better utilize the information provided through the "cultural information centres".

9.7 Support the drafting of a cyber law

It appears that there is consensus in Vietnam on a so-called Master Law (Mother law) for ICT.

So far, various ministries has made ad-hoc contributions to this process, while it now seems that the National Assembly's Science, Technology and Environment Commission will take a lead in this new legislation's development. Under the umbrella of this commission, concerned ministries are more likely to support a joint drafting and preparation work of a general ICT Law.

Sida could consider supporting a project to draft this Law, by including the topic as one "case" in the planned cooperation between Vietnamese NA and Swedish Parliament.

[20] The system developed allow for collecting, sharing and disseminating information on market prices in rural towns and villages.

Appendix 1

List of people met, 6–17 October 2003

Name	Position	Organization	Email
Alf Persson	Chief technical advisor	SIPU international (MoHA)	agfpersson@hn.vnn.vn
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Le Van Don	Chief of cabinet	MoH	
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Pham Thi Ngoc Linh	Department of market information	MoARD	Ngoclinh_vn@yahoo.com
Pham Van Loi	Vice director, Institute of law research	MoJ	
Rolf Samuelsson	First secretary, development cooperation	Embassy of Sweden, Sida	Rolf.samuelsson@sida.se
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Vern Weitzel	Web-manager	UNDP	weitzel@undp.org.vn
Vu Dinh Thuan	Vice minisiter	OOG	

Appendix 2
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10. GTZ ICT for Development Vietnam Country report, www.undp.org.vn/themes/ict4d/docs/viet_web.pdf
11. IBM e-ASEAN Readiness Assessment (summary, October 2002) http://e-asean.aseansec.org/reports/ASEANe-ReadinessAssessment-ReportforPublicCL.pdf

Appendix 3
GoV ICT policy documents

(List taken from USAID report, Vietnam's ICT Enabling Environment: Policy, Infrastructure and Applications, June 2002)

Government Policy Directives and Decisions

Resolution #49 (1993): IT Master Plan 1996-2000 (prepared through the Vietnam Canada Information Technology Project, 1998-2001)

PM Decision #54 (1998): establishes Techno-Economic Program on IT in MOSTE

E-ASEAN Framework Agreement (April 2000): Establishes policy to promote harmonization of regional e-commerce and e-governance goals to support regional trade and growth.

Resolution #7 (June 2000): Establishes policy to preferentially support the software industry as a major contributor to GNP.

Communist Party Policy Directive #58 (October 2000): Establishes policy on the use and development of IT to promote modernization for period 2001-2010

PM Decision #128 (November 2000): Specifies incentives and tax benefits to support investment in the software Industry

PM Decision #19 (2001): Specifies incentives and tax benefits to support investment in the hardware industry (PCs and peripherals)

Prime Minister Decision # 81 (May 2001): Establishes national IT targets in four program areas for 2001-2010 to implement Party Directive #58

PM Decision #112 (July 2001): Guidelines and targets for the computerization and automation of government management and administration to improve public service delivery.

Decree #55 (August 2001): Establishes policy on the management, provision and use of Internet, allowing for the first time private sector participation in ISP service delivery.

PM Decision #136 (September 2001): Establishes policy for Public Administrative Reform to modernize state administrative management; includes IT component.

PM Decision #158 (October 2001): Establishes DGPT's Telecommunications Master Plan through 2010 and includes measure to dismantle VDC's status as sole IXP.

Decree #175 (November 2001): Establishes National IT Steering Committee and Secretariat based in MOSTE.

PM Decision #33 (February 2002): approves Internet Development Plan for 2001- 2005 and provides budget byline.

Appendix 4

Project matrix (1), ADB program loan, PAR AP No.7 (project 112)

Excerpt from ADB report on program loan and technical assistance grant.

C. PROGRAM OF ADMINISTRATIVE MODERNIZATION INCLUDING COMPUTERIZATION AND E-GOVERNMENT INITIATIVES

Objective: To achieve an advanced and modern public administration through improvement in management modalities, quality policy coordination, better work methods and the use of ICT and government-wide computerized network in the operation, leadership, and management of the public administration system at the central and local levels.

Development Objectives	Phase 1 (2003–2006)			Phase 2 (2006–2008)	Phase 3 (2008–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
Objective C1: Enhanced productivity and work efficiency of the administrative system at all levels	1. Project on State Administrative Management Computerization, for 2001–2005, approved	Sep 2001	• Accomplished: Prime Minister's Decision No. 112/2001/QĐ-TTg issued		
	2. Develop a detailed implementation plan for PAR action program #7* including a master plan for State Administrative Management and Computerization (SAMCom) based on approved standards and methods for 2003–2005 (OOG)	Nov 2002	• Detailed action plan approved	• Review the initial plan, develop action plan for 2006–2008.	• Formulate action plan for 2008–2010
	3. Review and assess working rules and government management methods of the Government, including ministries, state agencies and people's committees at provincial level, on that basis, amend or formulate working rules and methods (OOG)	Dec 2004	• Review report on assessment of working rules and government management methods	• Review and update the reformed working rules and methods	• Review and carry out optimization of the working rules and management methods at four levels of government taking into account more efficient and effective computerized administrative facilities
	4. Commence implementing reformed working rules and methods for the Government, including ministries, state agencies and people's committees at provincial level (OOG)	Jan 2005	• Project status report	• Revise the implementation of reformed working rules and methods	
Objective C2: Appropriate legal framework established to support state administrative	1. Issue and commence implementing policies and regulations on: **a)** information interchange specifying methods and types of information that can be shared	Sep 2004	• Policies and regulations issued	• Assess and strengthen the effectiveness of policies and regulations	

* Not including the modernization of government office buildings.

Development Objectives	Phase 1 (2003–2005)			Phase 2 (2006–2008)	Phase 3 (2009–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
management computerization and E-Government.	**b)** among ministries, agencies, provinces and stakeholders encouraging and facilitating the use of Internet in Government, including appropriate budgetary allocation **c)** attracting and retaining quality SAMCom personnel in the government workforce including external expertise **d)** the use of information technology in the operation of state administrative management **e)** the application of modernized work methods in line with the computerization process **f)** the roles, responsibilities and authority of organizations and individuals operating and using the CPNET (OOG)				
	2. Issue procurement policies and regulation[a] to be used in the SAMCom program (OOG)	Feb 2004	• Policies and regulations issued	• Assess and strengthen the effectiveness of policies and regulations	
	3. Issue and commence implementing policies and regulations on: **a)** the use of electronic certification and authentication and electronic signatures in computerization and e-government **b)** the assurance of security and data integrity **c)** intellectual property rights applied in computerization/e-government (OOG)	Dec 2005	• Policies and regulations issued	• Assess and strengthen the effectiveness of policies and regulations	• Promulgate related laws
	4. Issue necessary legal documents for the computerization of public service deliveries (OOG and relevant agencies)	Dec 2004	• Legal documents issued	• Review and revise necessary legal documents to be established to support the	

[a] Procurement methodology and procedures will be produced through an attached TA

Development Objectives	Phase 1 (2003–2005)			Phase 2 (2006–2009)	Phase 3 (2009–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
				implementation of public service deliveries.	
	5. Enact laws to support computerization and e-government (including digital signatures, secure transactions, cyber contracts, intellectual property right, electronic payments/money, electronic fraud safeguard, computer/cyber crimes, content regulation, privacy protection) (OOG and relevant agencies)	Dec 2005	• Relevant laws available.		
Objective C3: Strengthened capacity in ICT management, planning and support.	1. Issue and commence implementing policies and regulations for the establishment of an executive information (EI) unit for each ministry, agency and provincial government, responsible for ICT planning and management (OOG /MOHA)	Dec 2003	• Policies and regulations issued.	• Carry out audits and assessment on EI units for compliance with policies and regulations.	• Review and update the standards and policies on systems planning, support, operation and maintenance in line with technological advance, stakeholders' expectation and demand in service quality.
	2. Start to establish an EI unit in each administrative agency responsible for all ICT matters, with specific terms of reference (OOG/MOHA). ***(Tranche 2 release measure)***	**Dec 2003**	• **At least 50 EI units established by Sep04** • All EI units established by Jun05.	• Review and revise the role, responsibilities and authority of the EIOs and EI units.	
	3. Establish standards, procedures and practice manuals for system planning, support, operation, and maintenance, and complete training the trainers[a] (OOG)	Sep 2003	• Existence of standards and procedures.	• Review and update standards and procedures.	
	4. Ensure that EI units comply with standards and procedures in systems planning, support, operation and maintenance (OOG)	Dec 2005	• Audit report on EIO organizations in compliance with standards and procedures.		
	5. Complete training for at least: a) 50% of senior managers in strategic ICT management and 30% of administrative civil	Sep 2004	• Training evaluation report.		

[a] Standards, procedures and practice manuals will be produced through an attached TA.

Development Objectives	Phase 1 (2003–2005)			Phase 2 (2006–2009)	Phase 3 (2009–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
	b) servants in basic computer usage (OOG). 50% of the EIOs and the EIO support teams in established standard systems planning, support, operation, and maintenance for each ministry, agency, and provincial government (OOG)				
	ii. Complete training for: a) the remaining 50% of senior managers in strategic ICT management and 70% of administrative civil servants in basic computer usage (OOG) b) the remaining 50% of the EIOs and the EIO support teams in systems planning, support, operation, and maintenance for each ministry, agency, and provincial government (OOG).	Dec 2005	• Training evaluation report		
Objective C4: Strengthened capacity in ICT systems development and implementation.	1. **Establish implementation units with the necessary budgetary and staff resources to implement planned activities and be responsible for the operation and maintenance of project facilities (OOG).** ***(Tranche 1 release measure)***	**Feb 2003**	• **A survey report showing allocated resources.**		
	2. **Conduct TNA and establish a training plan for:** **a) Systems development staff who will participate in the development of computerization/E-Government projects** **b) EIOs and the EIO support teams in systems planning, support, operation and maintenance for each ministry, agency and provincial government** **c) Senior managers in strategic ICT planning and**	**Feb 2003**	• TNA established.	• Revise TNA and implement appropriate training.	• Based on change in standards and policies, conduct training and retraining needs assessment.

Development Objectives	Phase 1 (2003–2005)			Phase 2 (2006–2009)	Phase 3 (2009–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
	d) End users in basic computer usage (OOG) ***(Tranche 1 release measure)***				
	3. Complete training for at least 50% of SAMCom development staff in systems development methodology, project management, quality management, procurement, and auditing (OOG)	Sep 2004	• Training evaluation report.	• Revise TNA and conduct further training and retraining	• Conduct training and retraining identified in the revised training plan
	4. Complete training for the remaining 50% of SAMCom development staff in systems development methodology, project management, quality management, procurement, and auditing (OOG)	Dec 2005	• Training evaluation report.	• Revise TNA and conduct further training and retraining	• Conduct training and retraining identified in the revised training plan
	5. Establish standards, procedures and practice manuals for systems development methodologies, project management, and quality management, and complete training of the trainers (OOG)	Mar 2004	• Standards and procedures established.	• Review and update standards and procedures	• Review and update the standards and policies on systems planning, support, operation, and maintenance in line with technological advances
	6. Establish technical system platforms and training standards for SAMCom projects (OOG). ***(Tranche 2 release measure)***	**Dec 2003**	• Standards established.		
	7. Identify computerization/e-government projects, which require organizational restructuring and administrative processes redesigned before implementation (OOG)	Jun 2003	• A list of organizations, which require restructuring and administrative processes, redesigned.		
	8. Establish policies and guidelines for performing organizational restructuring and redesign of administrative processes in a multistage reform approach as part of system development methodology. (OOG)	Feb 2004	• Policies and guidelines established.	Determine the scope of reforms in the period 2006–2010, continue performing restructuring of organizations, and redesign of administrative processes for computerization	

Development Objectives	Phase 1 (2003–2005)			Phase 2 (2006–2008)	Phase 3 (2009–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
Objective C5: Progressive build-up of computerization of state administrative management and e-government with benefits and services to the citizen, business, public employees, and other government agencies.	1. Establish a priority list of shared software applications and national databases to be implemented (OOG).	Feb 2003	• Established list of prioritized shared software applications and national databases implemented.	• Review and assess implementation progress. Formulate actions to improve the system development and delivery performance.	• Review and assess the performance of software applications and national databases in terms of capacity, capability, efficiency, and technological obsolescence, design issues and formulate plan for upgrades or redevelopment.
	2. Implement shared software applications and national databases as planned (OOG).	Dec 2005	• Project status report.		
	3. Apply change management techniques to each of SAMCom projects to ensure better user participation, minimizing risks, creating better conditions for success (OOG).	Dec 2005	• Project status report.	• Review and assess impacts of utilizing change management and improve its effectiveness in future projects.	• Study and apply new techniques in change management in view of change in roles, responsibilities and expectation of stakeholders.
	4. Implement government information portal for the purpose of publishing information and legal documents related to government agencies in accordance with established standard practices and procedures (OOG) ***(Tranche 2 release measure)***	**Sep 2004**	• Project status report.	• Revise and improve government information portal in technology and content.	• Study and upgrade technical platforms and content to better deliver performance and services in government information portal.
	5. Apply established standard practices and procedures in the implementation of at least five pilot e-government projects delivering public services (OOG).	Sep 2004	• Project status report.	• Continue the implementation of e-government projects delivering public services.	

Development Objectives	Phase 1 (2003–2005)			Phase 2 (2006–2008)	Phase 3 (2008–2010)
	Measures and Actions	Timeline (action by)	Monitoring Arrangements/Verifiable Indicators		
	6. Complete the establishment of a government integrated data center which integrates data from ministries, agencies, and provinces and provides decision support facilities for the government (OOG/relevant agencies)	Dec 2005	• Project status report.	• Review the effectiveness of the data center and offer training for policy analysts and decision makers on the use of decision support tools in policy analyses and formulation	• Implement advance methods in the provision of better decision support including data mining and forecasting.
Objective C5: Integrated computerized network from the central government to commune administration level operational	1. **Establish system specifications and develop and commence implementing a plan for enhancing CPNET and agencies' local networks (OOG).** ***(Tranche 2 release measure)***	**Jun 2003**	• **System specifications established and plan implementation commenced.**	• Assess performance, capacity, security provision, issues and problems of the implemented CPNET and agencies' local networks. Formulate plan for upgrades and expansion.	• Review overall cost effectiveness of implemented technologies, capacity and performance of CPNET and agencies' local networks in view of technological advances.
	2. Enhance CPNET and agencies' local networks (OOG)	Feb 2005	• Project status report.	• Expand and upgrade CPNET and agencies' local networks in accordance to revised plan.	• Upgrade or redevelopment of government networks depending on the state of availability of technologies.

ADB = Asian Development Bank, AP = action program, CPNET = Government Information Network, e-government = electronic government, EI = executive information, EIO = executive information officer, HCMPA = Ho Chi Minh Political Academy, HRD = human resources development, ICT = Information and Communication Technology, IPR = Intellectual Property Right, LNA = Legal Needs Assessment, LSD = Legal System Development, M&E = monitoring and evaluation, MIS = Management Information System, MOCI = Ministry of Culture and Information, MOHA = Ministry of Home Affairs, NAPA = National Academy of Public Administration, OOG = Office of Government, PAR = Public Administration Reform, PAR MP = Public Administration Reform Master Program, PAR SC = Public Administration Reform Steering Committee, PSD = public service delivery, SAMCom = State Administrative Management and Computerization, TA = technical assistance, TIA = training impact assessment, TNA = training needs assessment, ToT = Training of Trainers.

Appendix 5

ICTs For Rural Development and Poverty Alleviation in Viet Nam Excerpt from Project Proposal (UNDP)

UNDP Viet Nam is undertaking an initiative to demonstrate the value of Information and Communication Technologies (ICTs) for rural development and poverty alleviation. It is being conducted against the background of the Government's formulation of a national strategy for ICTs and also the Public Administration Reform (PAR) program in the Ministry of Agriculture and Rural Development (MARD), with which UNDP is closely associated. Armed with the results of a substantial nation-wide survey of farmers' information needs conducted by the "PAR in MARD" project, a small team from UNDP recently visited Yen Bai province to interview farmers, their families and agriculture support officials in order to test the ground realities relating to the availability and flow of farming information. The main objective was to assess the potential for applying ICTs to the development problems and opportunities that the communities face.

– How can ICTs help Vietnam's Farmers?

From the experiences of the field mission it was possible to identify ICT applications for information relating to the following:

– Market prices for the products they grow and for the products that they do not grow,
– Agricultural practices relating to existing and new crops and animal husbandry,
– Micro-enterprise opportunities relating to nearby markets,
– Farmer-to-farmer networking and knowledge sharing for collaborative opportunities,
– Micro-credit programs and opportunities,
– Activities of Co-operatives, Associations and Unions,
– Local Poverty Reduction Programs.
– Adult literacy education,
– Community based tourism,

These opportunities already represent a considerable agenda for information-based development within the communities visited. They were arrived at after brief visits, without detailed data gathering, but with

targeted objectives and careful observation. From the experience of the team, which includes previous involvement with rural ICTs in several other ASEAN countries, it is evident that every rural community has the potential to make good use of ICTs, in terms of delivering useful information to them and as an enabler of development that is based on information assets.

Halving poverty by 2015 is one of the greatest challenges of our time, requiring cooperation and sustainability. The partner countries are responsible for their own development. Sida provides resources and develops knowledge and expertise, making the world a richer place.

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