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IMPLEMENTATION COMPLETION AND RESULTS REPORT (Credit 3986-CE)

ON A

CREDIT AND GRANT

IN THE AMOUNT OF SDR 29.2 MILLION (US\$ 55 MILLION EQUIVALENT)

TO THE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

FOR A

E-SRI LANKA PROJECT

November 20, 2014

Finance and Markets Global Practice

South Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 2014)

Currency Unit = Rs. Rs 1.00 = US\$ 0.0077 US\$ 1.00 = Rs. 130

FISCAL YEAR FY14 July 1 – June 30

ABBREVIATIONS AND ACRONYMS

ARC	Administrative Reform Committee
BPO	Business Process Outsource
CAS	Country Assistance Strategy
CBSL	Central Bank of Sri Lanka
CEA	Country Environmental Analysis
CEO	Chief Executive Officer
CIDA	Canadian International Development Agency
CINTEC	Center for Information Technology
CIO	Chief Innovation Officer
e-SF	e-Society Fund
G2B	Government to Business
G2C	Government to Citizens
G2G	Government to Government
GND	Grama Nilhadari Division
GOSL	Government of Sri Lanka
HRD	Human Resources Development
ICBF	Institutional Capacity Building Fund
ICT	Information and Communication Technology
ICTA	Information and Communication Technology Agency
IOC	Incremental Operating Costs
ITES	IT-Enabled Services
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MERST	Ministry of Economic Reform, Science and Technology
MOF	Ministry of Finance
MOST	Ministry of Science and Technology
MTR	Mid-Term Review
NEA	National Environmental Act
NGOs	Non-Governmental Organizations
NRI	Network Readiness Index
PFG	Policy Focus Group
PPF	Project Preparation Facility
RTN	Regional Telecommunication Network

SLCERT	Sri Lanka Computing Emergency Readiness Team
SGA	Subsidiary Grant Agreement
SIL	Specific Investment Loan
SME	Small and Medium Enterprise
TA	Technical Assistance
UNCITRAL	United Nations Commission on International Trade Law
UNDP	United Nations Development Program
USAID	United States Agency for International Development
VGK	Vishva Gnana Kendra (Nenasala)
WBI	World Bank Institute
WSIS	World Summit on Information Society

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SRI LANKA E-SRI LANKA PROJECT

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DATA Sheet

SRI LANKA - E-SRI LANKA PROJECT

A. Basic Information				
Country:	Sri Lanka	Project Name:	e-Sri Lanka Development Project	
Project ID:	P081771	L/C/TF Number(s):	IDA	
ICR Date:		ICR Type:	Core ICR	
Lending Instrument:	SIL	Borrower:	Democratic Socialist Republic of Sri Lanka	
Original Total Commitment:	SDR 36.3 Mil.	Disbursed Amount:	36.9 Mil. SDR	
Revised Amount:	SDR 43.3 Mil.			
Environmental Cate	egory: C			
Implementing Agen	cies: Information ar	nd Communication Techn	ology Agency (ICTA)	
Cofinanciers and Other External Partners: N/A				

B. Key Dates

D. Key Dates					
Process	Date	Process	Original Date	Revised / Actual Date(s)	
Concept Review:		Effectiveness:	01/25/2005	01/25/2005	
Appraisal:	08/24/2004	Restructuring(s):		09/01/2005 03/02/2009 08/12/2009 04/26/2011 12/02/2011	
Approval:	09/21/2004	Mid-Term Review:	07/01/2007	01/09/2008	
		Closing:	12/31/2009	12/31/2013	

C. Ratings Summary			
C.1 Performance Rating by ICR			
Outcomes:	Satisfactory		
Risk to Development Outcome:	Negligible		
Bank Performance:	Moderately Unsatisfactory		
Borrower Performance:	Moderately Satisfactory		

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	MS	Government:	S
Quality of Supervision:	U	Implementing Agency/Agencies:	MS
Overall Bank Performance:	MU	Overall Borrower Performance:	MS

C.3 Quality at Entry and Implementation Performance Indicators

C V V	1		
Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	Yes	Quality at Entry (QEA):	_
DO rating before Closing/Inactive status:	S	Quality of Supervision (QSA):	-

D. Sector and Theme Codes			
	Original	Actual	
Sector Code (as % of total Bank financing)			
Communication Technologies	60%	60%	
General Public Management	30%	30%	
Education	10%	10%	

Theme Code (as % of total Bank financing)		
Administrative and civil service reform	33%	33%
Infrastructure services for private sector development	17%	34%
Micro, small and medium enterprise support	17%	
Rural services and infrastructure	33%	33%

F	Ronk	Staff
L'.	Dallh	Stall

E. Dalik Stall		
Positions	At ICR	At Approval
Vice President:	Philippe H. Le Houerou	Praful C. Patel
Country Director:	Francoise Clottes	Peter C. Harrold
Practice Manager:	Henry K. Bagazonzya	Simon Bell
Project Team Leader:	Sriyani Hulugalle	Nagy Hanna
ICR Team Leader:	Niraj Verma	
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F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The objective of the Project is to assist the Borrower in promoting the use of information and communication technology to: (i) generate growth, employment and equity; (ii) provide affordable access to means of information and communication, including access by citizens and businesses to public information and services online; and (iii) encourage and enhance the competitiveness of industries, small and medium enterprises and other private sector entities.

Revised Project Development Objectives (as approved by original approving authority)

The PDO was not revised.

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator:				
1. Improved access and use of ICT in target areas (as measured by number of beneficiaries in target communities using telecentres on a regular basis to improve their communication opportunities and access to services – e.g. Health, Education, Employment & Govt.)	0	33,000	40,000	43,475
2. User satisfaction with applications established under the e-society grant mechanism with a satisfaction rate of 70%.	0	70	70	711
3. 7.5% of target beneficiaries (7.5 mn. citizens and businesses) conducting transactions with the central government on-line	0	7,500,000	7,500,000	11,088,886
4. Reach 4.7score on the business usage subscale of the	3.46	4.70	4.70	4.0

¹ Community assistance program 77%; partnership assistance program 60%; replication assistance program 72%; additional financing 74%; overall average 71%.

NRI index				
5. 10,000 jobs created in ICT industry (IT-enabled services	20,000	60,000	60,000	75,107

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1: Re-Engineering Government				
1. 50 government organizations are connected under LGN Phase 3	N/A	50	50	74
2 Number of government agencies with an operational portal or Web site	0	380	380	495
3. 20 additional e-services created for and used by citizens, private sector and public sector (G2G, G2C and G2B)	0	20	20	25
4. % reduction in average time taken to obtain government services by citizens and the level of satisfaction (70% satisfaction).	0/0	20/70	20/70	a) Average Time taken : 2 hrs 4mins % reduction over 2013- 29% b) (Highly Satisfied + Satisfied) 88%, moderately. Satisfied 10%
5. 50 % of government organizations are compliant with e-government policy(total organizations 1200)	0	50	50	Level of compliance to the major 14 key items of e gov policy - 70%
6. 200 divisional secretariats implement civil registry e- government application	0	200	200	89 ² Div Secretariats (Colombo, Putalum, Kurunegala, Kaluthara, Matale and Nuwaraeliya Districts)

 $^{^2}$ There was a legal issue preventing issuing birth, marriage and death certificates by using the system. Further implementation was stopped until amendment to the original act was approved. The issue was that the formats designed by the system were different from the formats defined in the regulation. The issue was settled and in December 2013, the Legal Draftsman formally issued the Electronic Transactions (e-Population) Regulation to be published in the Government Gazette which will legalize the issue of e-Birth certificate which has already being piloted in 5 districts. The system will be installed in the remaining Divisional Secretariats in 2014.

7. 850 government officers are trained to use ICT infrastructure effectively in the organizations covered under LGN Phase 3	0	850	850	850
Indicator 2: a-Policy				
Leadership and Institutional Development				
1. Trained CIO teams responsible for e-transformation established within 30% of the remaining government agencies (550 selected agencies)	0	30	30	30% (165 organizations)
2. 5% annual improvement in rating of ICT policy environment using NRI index	0	5	5	27%
3. 70% of users are aware of and are able to use standard based local language computing	0	70	70	84% awareness 72% Usage
Indicator 3: RTN Development				Dropped
Indicator 4 and 6: Telecenters & E-Society				
1. 40 telecentres established in underserved areas out of which 70% will be operational and 25% financially sustainable.	0/0/0	40/70/25	40/70/25	a) 40 b) 100% As these telecenters were recently established it is still too early to assess the financial sustainability.
2. a) 40% of telecenter users are women; b) 70% of users are youth	0/0	40/70	40/70	a) 40.5% b) 54.3 %
3. % increase in number of replication locations (telecentres, government/private sector institutions and development partners) using applications developed under the e-Society Grants	0	20	20	24.2%
Indicator 5: ICT Education and Industry Promotion				
Number trained under ITES Skills Certification Programs (SCP) and trained the trainer (ToT) program	SCP = 0 $TOT = 0$	SCP = 1,000 TOT = 50	SCP = 1,000 TOT = 50	SCP=1,053 ToT=55

G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	12/25/2004	Satisfactory	Satisfactory	No disbursements made
2	06/03/2005	Satisfactory	Satisfactory	5.43
3	10/26/2005	Satisfactory	Satisfactory	10.67
4	05/12/2006	Satisfactory	Satisfactory	13.57
5	10/27/2006	Moderately Unsatisfactory	Moderately Unsatisfactory	14.33
6	06/15/2007	Moderately Unsatisfactory	Moderately Unsatisfactory	16.05
7	12/14/2007	Moderately Unsatisfactory	Moderately Unsatisfactory	19.60
8	05/30/2008	Moderately Satisfactory	Moderately Satisfactory	21.71
9	12/23/2008	Moderately Satisfactory	Moderately Satisfactory	23.81
10	06/26/2009	Moderately Satisfactory	Moderately Satisfactory	25.60
11	12/14/2009	Moderately Satisfactory	Moderately Satisfactory	31.44
12	08/18/2010	Moderately Satisfactory	Moderately Satisfactory	35.64
13	07/12/2010	Moderately Satisfactory	Moderately Satisfactory	35.86
14	06/14/2011	Satisfactory	Satisfactory	37.94
15	02/03/2012	Satisfactory	Satisfactory	41.70
16	06/29/2012	Satisfactory	Satisfactory	47.45
17	08/22/2013	Satisfactory	Satisfactory	47.46

H. Restructuring

Restructuring Date(s)	Board Approved PDO Change	ISR F Restru DO	Ratings at Icturing IP	Amount Disbursed at Restructuring in USD	Reason for Restructuring & Key Changes Made
09/01/2005	No	S	S	10.67	SDR 3.6 mil. was transferred towards Tsunami Rehabilitation relief
03/02/2009	No	MS	MS	24.25	Amendments to Part A, C and E of Schedule 2 (project description and changing the name of the RTN component to Broadband Communication Infrastructure (BCI)), amend sections 3.04 and 3.05 C to reflect the changing governance and operating environment and reallocating budget between components
08/12/2009	No	MS	MS	28.06	Reallocation of funds amongst components and extension of the closing date to December 31, 2011
04/26/2011	No	S	S	37.62	RTN component dropped and SDR 6.5 mil cancelled. Re- allocate SDR 1.6 mil. among remaining components
11/02/2011	No	S	S	40.08	Extension of closing date to March 31, 2012

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1. Context at Appraisal

1.1.1. **Country and sector background:** The Country Assistance Strategy (CAS) for FY 2003-2006 developed by the World Bank and the Government of Sri Lanka (GOSL) built on the poverty reduction strategy of Sri Lanka that outlined six core areas: building a supportive macroeconomic environment; reducing conflict-related poverty; creating opportunities for pro-poor growth; investing in people; empowering the poor and strengthening governance; and implementing effective monitoring and evaluation systems.

1.1.2. Within this framework, the Bank supported the three overarching themes of growth, peace, and equity. In its *e-Sri Lanka: an ICT Development Road Map*, GOSL had identified information and communication technology (ICT) as a means of achieving these goals-through technological and institutional transformation of key sectors of the economy. The e-Sri Lanka Development Project evolved as a response to the GOSL roadmap for ICT and was expected to assist GOSL to: (i) develop the necessary capacity to lead and implement an ambitious ICT program; (ii) strengthen the information infrastructure serving the poor and rural areas; (iii) create an enabling environment for the knowledge economy; (iv) develop specialized ICT skills and broad ICT literacy at all levels of education; (v) deliver faster, more efficient, and more transparent government services to all citizens and businesses; (vi) use ICT as a lever for social development; and (vii) create jobs through a dynamic and competitive ICT sector and through diffusion of ICT among SMEs.

1.1.3. Although Sri Lanka had strong political commitment, proximity to major ICT centers in India and East Asia and an emerging base of ICT professionals, several factors had constrained Sri Lanka's e-development. These included: (i) poor coordination of ICT related policies and programs; (ii) a low level of ICT use within government and among small and medium enterprises (SMEs); (iii) an ICT industry consisting mainly of SMEs lacking institutional support for finance and marketing; (iv) low ICT literacy; (v) information and communication infrastructure concentrated in urban areas; (vi) lack of public access points to make ICT affordable to the majority of the population; and (vii) an underdeveloped legal environment to create trust in electronic transactions. The e-Sri Lanka project sought to address these challenges, while contributing to overall development of the country.

1.1.4. **Rationale for Bank involvement**: Support from the Bank was sought to help implement the roadmap for ICT which depended on a holistic program with appropriate investments in policies, institutions, and skills. The Bank – which was the only external funding agency involved at the start of the project – was well positioned to provide the support given its experience in ICT in various countries; experience of investing in the telecom industry in the past and international experience with similar programs; and complementarities with other programs. It was also recognized that for the Bank, the experience could help in replication in other countries.

1.2. Original Project Development Objectives (PDO) and Key Indicators

1.2.1. The objective of the Project is to assist the Borrower in promoting the use of information and communication technology to: (i) generate growth, employment and equity; (ii) provide affordable access to means of information and communication, including access by citizens and businesses to public information and services online; and (iii) encourage and enhance the competitiveness of industries, small and medium enterprises and other private sector entities.

1.3. Revised PDO and Key Indicators

1.3.1. The PDO was not revised during the project implementation period. During the additional financing phase (2012) some indicators under Component 3 were dropped or revised as listed below³. While many of the original indicators were surpassed, a number of new intermediate targets were introduced due to the need for scaling up of activities, including enhancement of government connectivity, scaling up pilot activities and expanding training coverage (see section 1.6). In addition, indicators were added to capture progress on the enabling environment/policy changes and the communication approach. The changes to intermediate indicators were as follows:

Inc	licators that were added:	In	dicators that were dropped:
•	50 government sector organizations to be connected to	٠	30% of population to have
	Lanka Government Network (LGN) Phase 3;		access to private phone
•	200 divisional secretariats to implement civil registry e-		connections. RTN component
	government application;		dropped (see Section 2.2);
•	50% of government organizations compliant with e-	٠	30% of population to have
	government policy (total reorganizations 1200);		internet access (excluding
•	850 government officers to be trained to use ICT		telecenters) in targeted areas.
	infrastructure effectively in the organizations covered		RTN component dropped (see
	under LGN Phase 3;		Section 2.2);
•	70% of users are aware of and are able to use standard	٠	RTN network: (a) Constructed
	based local language computing.		in deep South and North east
•	Percentage reduction in average time taken to obtain		Regions within two years of
	government services by citizens and the level of		the licenses awarded; and (b)
	Satisfaction (70% satisfaction);		Provide dedicated connectivity
•	No. of replication locations (telecentres, government/		to telecenters.
	private sector institutions and development partners)		
	using applications developed under the e-Society Grants;		
•	Numbers trained under ITES Skills certification		
	Programs and train the trainer (ToT) program.		

1.4. Main Beneficiaries

1.4.1. The main beneficiaries of the project were government agencies, private sector especially the ICT sector, civil society and public at large including in rural areas (and including women, poor and youth).

³ See also Section 2.2

1.5. Original Components

1.5.1. The project supported six components. Financial assistance was allocated to support modernization of government services and to improve access to information infrastructure and services. Other programs provided technical assistance to build capacity for ICT leadership, improve policies for ICT diffusion, provide ICT literacy, promote ICT education and exports, and mobilize resources and innovation in ICT applications to meet priority social needs (see Annex 1). Synergy between all these elements was seen as a key success factor for the project and the e-Sri Lanka vision.

1.5.2. The *ICT Policy, Leadership and Institutional Development Program* was expected to build ICT leadership capacity. Leadership was principally located in the newly-formed ICT Agency, which was to design and adapt the overall e-Sri Lanka initiative, coordinate implementation, manage and mobilize resources, promote governance and enabling environment for ICT investment, produce technology standards, policy and implementation guidelines and ensure monitoring of programs.

1.5.3. The *ICT Human Resources Development and Industry Promotion Program* aimed to generate growth and employment by enhancing the competitiveness of the domestic ICT industry and ICT-enabled services, promoting ICT diffusion in the private sector, and producing much-needed ICT-skilled human resources. The principal target groups for this program were ICT industry and ICT training institutions. To implement this program and to deliver these outcomes, GOSL established the ICT Capacity Building Fund (ICBF). The Fund was to use competitive grants and contracting on a fee-for-service basis to find subprograms and studies.

1.5.4. The *Regional Telecommunications Network (RTN) Development Program* targeted populations in the poorest regions of the country that had low connectivity or were situated in the conflict-affected regions. The program was expected to promote competitive and affordable telecommunications services for users, particularly the poorer segments of society, and was expected to integrate communities throughout the country, providing appropriate channels for e-government, e-commerce, and e-learning services. Least-cost subsidies were to be provided to regional operators to extend access in rural areas and encourage private participation in the sector. RTNs were to connect 200 Telecenters under the Telecenter Development Program.

1.5.5. The *Telecenter Development Program*, called VGK, (or *Vishva Gnana Kendra, or Nenasala*), aimed to empower the population in rural areas of the South, North, and East through affordable community access to ICT. Telecenters were to be progressively established in rural areas to serve the local population (farmers, students, SMEs, women, youth, and marginalized groups). Voucher schemes were to augment demand from target populations. The program was also expected to contain a community outreach component that was expected to enable distance learning for the target population, computer literacy training for teachers in rural VGK areas, and use of VGK facilities by rural secondary schools in support of their academic programs. Grassroots initiatives were expected to generate telecenter services to be funded under the e-Society Fund (e-SF) program.

1.5.6. The *Reengineering Government Program* pursued major improvements in GOSL's efficiency, transparency, effectiveness, and quality of services. It was expected to expand already identified fundamental governance and public

management reforms by reengineering public sector work processes for strategic use of ICT.

1.5.7. The *e-Society Program* sought to promote the innovative use of ICT to meet the economic and social needs of the most vulnerable groups in Sri Lanka; to develop approaches to scale up successful applications; and to empower civil society with affordable access to information, communication, and relevant local content. Competitive grants were expected to fund pilot projects implemented by community organizations, NGOs, private companies, public and social-sector institutions.

1.6. Revised Components

1.6.1. Additional Financing (AF) of US\$11 million was approved in 2012. AF was to support the implementation of expanded activities that were to scale up the project's impact and development effectiveness by: (i) consolidating existing high impact activities including e-Government applications, common platforms and service delivery points; (ii) bridging gaps in ICT infrastructure, training, establishing technical standards, regulations and legislative areas (iii) completing and enhancing minimum enabling environment for the above to function; and (iv) using the available services effectively. The AF entailed the following changes: (i) changes in the intermediate outcome indicators and results framework (see Section 1.3), (ii) changes in the project components, and extension of Closing Date to implement additional financing from March 31, 2012 to December 31, 2013.

1.7. Other significant changes

- 1.7.1. Prior to the AF, the project had gone through several amendments which are:
 - September 1, 2005, SDR 3.6 million was transferred towards the Tsunami Rehabilitation relief;
 - March 2, 2009, amending Part A, C and E of Schedule 2 (project description and changing the name of the RTN component to Broadband Communication Infrastructure (BCI)), amending sections 3.04 and 3.05 C to reflect the changing governance and operating environment and reallocating budget between components;
 - August 12, 2009, reallocating funds amongst components and extending the closing date to December 31, 2011;
 - April 26, 2011, cancelling the Regional Telecommunication Network (RTN/BCI) component to be implemented by the government and dropping the associated three intermediate indicators (see Section 2.2 and Annex 2, Component 3). Cancelling SRD 6.5 million from the RTN component and reallocating the remaining SDR 1.6 million from this component among the other five components.
 - December 2, 2011, extending the Closing Date to March 31, 2012.

2. Key Factors Affecting Implementation and Outcomes

2.1. Project Preparation, Design and Quality at Entry

(a) Soundness of the background analysis

2.1.1. The preparation of the e-Sri Lanka project entailed significant technical work and analysis and found that a comprehensive e-development strategy for Sri Lanka, if successfully implemented, could help accelerate economic growth as appropriate investments in ICT had done in other countries. The Bank was well positioned to strategically support ICT as an integral part of a national development strategy for the reasons outlined in Section 1.1. A broad-based and strategic approach was considered best to address policy and infrastructure issues that could not be effectively addressed through ad hoc computerization. Project preparation drew on best practices in egovernment from Singapore and Andhra Pradesh; in telecenters from India and Chile; and in the software industry from Silicon Valley and Bangalore.

(b) Assessment of the Project Design

2.1.2. At the design stage, the project benefited from earlier experience of the World Bank in supporting a competitive market for telecommunications services in Sri Lanka, as well as the Bank's experience in implementing technology and regulatory reform projects around the world. The project components were comprehensive in their coverage and together constituted an ample response to the objectives of the government's vision for ICT development. The project design supported the principles of the Country Assistance Strategy (CAS) for FY 2003-2006 through creating an effective ICT platform supporting e-government services and expanding outreach and quality of such services across the country, including in the more economically poorer areas of the country.

2.1.3. At the same time, the project built on the international experience and lessons learned in the course of implementing technology and regulatory reforms in several countries. The implementation arrangements reflected this. It acknowledged the importance of the institutional infrastructure for successful implementation of regulatory reform, and the necessity of local capacity building and improvement of the quality of legislation process for ensuring long-term sustainability of the reform's results. The project incorporated lessons from the countries mentioned above and ideas such as the adoption of a multi-operator environment to improve service and access, and reliance on smart subsidies to extend service to remote areas were drawn from such experiences. Experience of info-Dev Program⁴ and the Development Gateway Foundation in administration of innovative ICT grants programs was incorporated in the design of e-Society and the Institutional Capacity Building Fund (ICBF). The project reflected worldwide e-government experience that suggests that centrally guided, citizen-focused programs were better than multiple, agency-centered programs, in that they better align ICT investments with public sector reforms and priorities, achieve economies of scale, ensure interoperability across systems and

⁴ The info-Dev Program is housed at the World Bank and focuses on supporting the use of ICT to promote sustainable development and poverty reduction.

information sharing across agencies, avoid duplication in technology investments, and offer opportunities for integration and transformation across government "silos."

2.1.4. It should be noted that there were no pre-existing models of Bank financed projects that took such a wide, holistic and strategic approach to the use of ICT in support of overall country development strategies. In that context, the e-Sri Lanka project was innovative.

- 2.1.5. However, three factors affected the quality of the design of the project:
 - a) The PDO formulation set broad and far-reaching economy-wide ultimate objectives (enhance growth, employment, and equity). While, as discussed in section 3 below, the project contributed positively to those objectives, the actual impact of the project on these broad objectives is inherently difficult to measure, creating a problem of objective attribution of the project's results to the PDO.
 - b) The project's design relied heavily on the institutional capacity of the implementing agency (ICTA) to conduct complex procurement and financial management processes. While the need to enhance this capacity was identified as one of the risks to the project (see section d below), in the initial stages, the Bank should have worked closely with and guided the borrower to enhance the institutional capacity in line with the requirements for project implementation.
 - c) The project's design incorrectly estimated the ability of the private sector to provide services needed as part of the project. This led to delays in project implementation and to a significant (and unplanned) increase in project expenditures focused on building capacity in the implementing agency to undertake tasks that were expected to be outsourced to private sector providers. An unintended result of this was the significant growth of the implementing agency to more than 80 staff by the end of the project.

(c) Adequacy of Government's Commitment

2.1.6. The Government showed a strong commitment evidenced by its preparation of ICT roadmap and its request to the Bank for support for the e-Sri Lanka project. The Government's commitment remained strong throughout project implementation as evidenced by the continued support to ICTA and high level of engagement. Budgetary support was provided to ICTA throughout the project period, and there is indication that government support to ICTA will remain going forward.

(d) Assessment of Risks

2.1.7. Several risks were identified during project preparation and risk mitigation measures were incorporated into the project design as follows:

- *Change in government strategy leading to decreased support of ICT reforms:* ICTA was to invest in establishing mutual understanding with all major parties and interest groups in the country to ensure broad ownership of the project;
- *Risks due to comprehensive coverage, multi-sectoral nature, interdependence among components and complexity*: Bank assistance was phased to take a flexible programmatic approach, focus on a coherent set of subprograms, provide a clear governance framework, start with pilots in e-government and telecenter programs and promote maximum outsourcing to the private sector;

- Disruptions in the political process would distract the primary sponsors from this project: Project was expected to build a broad consensus, take a programmatic approach, and to be flexible to adjust to changes brought by political developments;
- *ICTA had no experience in implementing Bank projects.* TA was to be provided to ICTA to define the roles, responsibilities, and individual work programs. Staff was to be accorded competitive salaries and incentives for career development to attract and retain professional talent;
- On the infrastructure network and telecenter developer program, there is lack of interest in bidding for the RTN licenses or defaults on access obligations. The newly licensed operators may be arbitrarily regulated: There were many service providers in Sri Lanka who were expected to bid for the RTN licensing. GOSL sought to attract a wide set of bidders, adopted performance based incentives and provided detailed information on the operations of the RTN in the RFP. ICTA was expected to monitor and certify progress while the private operators retained the right to international arbitration;
- *Telecenters may not become financially sustainable*: Telecenter operators and support institutions were to be provided training and technical assistance. As e-government services grew and use increased, sustainability was expected to be enhanced; and
- *e-Society Fund (e-SF)/ICBF: Lack of demand from the local communities leading to insufficient number of proposals or to low impact proposals:* NGOs and local agencies' knowledge of local issues was to be mobilized and used to identify priorities. Technical assistance, financial training, and advice were to be provided during inception and for a limited duration thereafter.

2.1.8. A World Bank Quality Assurance Group (QAG) review of the economic and sector work (ESW) that underpinned the project was undertaken. In particular, QAG ratings were based on the fact that this ESW helped build consensus within the government and particularly the Bank to pioneer this project and overcome resistance to assist this new sector. The QAG review rated the sector work as high quality, mainly because the work was timely and responsive to the expressed need of the client, was carried out in innovative ways that engaged top policy makers and stakeholders, and provided a basis for action and financing.

2.2. Implementation

2.2.1. The following factors affected project implementation:

2.2.2. Factors having a positive impact

- **Strong government support**: The government identified ICT as a means of achieving peace, growth and equity through technological and institutional transformation of key sectors of the economy. Government commitment towards the project remained strong throughout the implementation. This is evidenced by the strong support to ICTA, a professional, government agency that implemented the project, while supporting the overall development of the ICT sector in the country.

- Active involvement of ICTA on consolidation and development of the sector: ICTA was instrumental in assisting the government in strengthening the policy framework for the digital economy⁵. ICTA led the successful unification of the eight ICT industry associations, and helped create SLASSCOM—a promising coalition of software and BPO companies. ICTA staff also participated in several government IT-related Tender Boards and assisted ministries and agencies in their capacity as technical experts. ICTA also pioneered the creation of the current Chief Innovation Officer function and the development of CIO staff with a mandate to promote electronic services and ICT usage within their respective agencies which supported project implementation.
- **Expansion of the project to previously inaccessible areas of the country increased its outreach and results**. Until 2009 the government was unable to implement several initiatives envisaged under the project in the North and the North-East of the country due to instability in the area. Once the area stabilized, the government went ahead with implementation in these two provinces. The additional financing approved in 2012 by the Bank was also instrumental in completing these activities in the North and the North East.
- **Costs savings enhanced efficiency**: Following the mid-term review (MTR) several changes were made to the implementation arrangements which led to substantial progress and cost savings; including, formation of technology teams, establishment of Sri Lanka Computing Emergency Readiness Team (SLCERT) and other in-house staffing initiatives such as the Private Sector and e-Society teams.

2.2.3. Factors having a negative impact

- **Changes in management at ICTA** during the early years of implementation of the project led to a phase of delays in project implementation. These shortcomings were resolved by late 2007.
- **Procurement and financial management shortcomings** led to delays in project implementation in the initial stages (see Section 2.4).
- **Difficulties in awarding a contract** for the provision of cable connectivity led to the cancelation of one component of the project (Component 3: Rural Telecommunication Network (RTN) Program, see Annex 2).
- **Multiple reporting obligations on ICTA**⁶resulted in administrative burden that affected ICTA's timeliness of response during some stages of implementation of the project. However this ultimately did not affect the overall performance of the project.

2.3. Monitoring and Evaluation (M&E) Design, Implementation and Utilization

2.3.1. **M&E Design:** ICTA maintained an oversight and integration role on M&E, but outsourced the M&E of project progress as per project design. The outsourcing was expected to capitalize on economies of scale through combining common activities, while ensuring compatibility and consistency of approach across all program areas. The consultants were able to develop a strong and sustainable M&E capacity within ICTA. ICTA created a unit and placed qualified staff to oversee this function. In addition to the regular M&E services provided by the firm, ICTA

⁵ Such as the Electronics Transactions Act of 2006 and the Computer Crime Act of 2007, and e-Government Policy of 2008

⁶ Stemming from ICT Act, Companies Act, Public Enterprise rules and DCA.

recruited external evaluation experts to perform impact assessment at mid-term and project completion and ex-post evaluation. External evaluation performed by international experts helped in comparing e-Sri Lanka experiences against international experiences and drawing on lessons learned in formulation of recommendations.

2.3.2. **M&E Implementation:** To effectively manage the M&E firm, ICTA set up an internal M&E management unit headed by internal M&E specialist, which significantly improved its capacities in developing log frames and result-based frameworks (RBF) to define indicators for performance measuring and M&E, and developing M&E plans including the necessary institutional and managerial arrangements. In addition, the M&E Unit gained experience in the design, planning and supervision of surveys and the organization of focus group discussions. Furthermore, as Bank implementation support reports confirm, the staff of the M&E Unit improved its analytical capacities and skills in critically assessing and questioning facts and identifying how M&E could support and complement project management.

2.3.3. **M&E Utilization:** The implementation of the e-Sri Lanka project was closely monitored in accordance with the M&E plan developed under phase I of the consultancy. The majority of data generated through project implementation (Nenesala users and training participants) was collected on a monthly basis using the data collection instruments developed. To gather baseline data against outcome indicators developed, five evaluation surveys were conducted in 2007. Based on the agreed set of selected indicators, periodical evaluations (four final evaluations were conducted) focused on the achievement of developmental outcomes and impacts. The findings of the evaluations were consolidated, discussed and commented upon in Evaluation Reports and used to refine training methods, improve quality and content of training materials, provide grass root support to e-society programs, etc. The reports, where possible, also comprised recommendations on: (i) potential for improving the effectiveness and efficiency of e-Sri Lanka implementation, and (ii) methods to improve the M&E of the various programs and projects.

2.3.4. M&E capacity was also built among partners and contractors of many e-Sri Lanka projects. The Regional Impact Teams and the staff of survey consultants, were made aware of the result-oriented approach used in the M&E methods of e-Sri Lanka and were trained to focus their assessments and data collection efforts accordingly. As a result, the M&E unit was able to get the required level of collaboration from key project stakeholders (see under lessons learned). At the end of the consultant contract in 2011, the ICTA M&E unit took over the responsibility of M&E activities under the project. This unit continues and is funded by the government budget. During project implementation, the M&E unit produced timely quarterly performance reports. In addition M&E unit was engaged in demonstrating results and lessons learned through workshops to various stake holders within the government.

2.4. Safeguard and Fiduciary Compliance

2.4.1. The project did not entail any major environmental risk and did not include any construction or land acquisition. The project was rated as category "C". There were no issues in compliance with environmental safeguards. This was an e-development and information and communication technology (ICT) sector reform project, primarily involving policy and institution-building components.

2.4.2. The project did not entail any social risk or risk of adverse social impact. On the contrary, the project contributed to social development, with a special emphasis on integrating the poorest populations of the South and North East regions of the country through the promotion of affordable access to information and communication, thereby narrowing the digital divide between the west of the country and these provinces. Under the project's participatory approach, government stakeholders were engaged in the e-Policy, Leadership and Institutional Development Program and the Reengineering Government Program; industry and academia were engaged in the ICT Human Resources Development and Industry Promotion Program; the private sector, through the Regional Telecommunication Network program; rural populations, through the Telecenter Development Program.

2.4.3. With respect to financial management (FM), the project experienced significant challenges at various stages of project implementation. It took two years for an acceptable financial management system to be in place and for the staff (with high turnover) to become familiar with procedures agreed in the Financing Agreement. These deficiencies were addressed by ICTA with the assistance of the Bank and by the time of the MTR (2008), financial management of the project was assessed as satisfactory.⁷

2.4.4. During implementation, starting as early as 2006 and until project closure at the end of 2013, several challenges regarding procurement were encountered. While these challenges were noted by the Bank's team and management, no timely actions were taken to ensure compliance with Bank's procurement guidelines as agreed in the Financing Agreement. The Bank should have done its due diligence and provided support to the client to comply with Bank procurement procedures from the beginning of the project implementation.

2.4.5. The issues stemmed from ICTA's practice of following its own procedures with respect to recruitment, compensation and allocation of costs, instead of Bank procurement procedures. These issues arose in part on account of a stand-alone document called the 'Loan Covenant' that was signed on January 13, 2004 between the Bank, Ministry of Finance and Ministry of Science and Technology, empowering ICTA to "set its own financial and administrative procedures and mechanisms furthering full independence in relation to the recruitment levels, remuneration and schemes". However, the Bank's team did not clarify to the Government that this Loan Covenant was superseded by the Project's Financing Agreement, which created the obligation to follow Bank's procurement guidelines. As a result, ICTA continued to follow its own procedures with respect to recruitment, compensation and allocation of costs with the concurrence of the Bank. In this aspect, the Bank's management and the task team at large should have been more proactive and worked closely with ICTA to properly document and bring this matter to closure, which was not done.

⁷ Quarterly interim unaudited financial reports (IUFRs) were submitted to the Bank. There were no outstanding audit reports for the Project and all audit reports were found satisfactory to the Bank. The project audits received "unqualified" opinions of the audited financial statements and no major systems and control issues were identified by the auditors during the course of the audits.

2.4.6. A Fiduciary Review was conducted in March 2014. The review found that the project initial design called for a small number of ICTA staff and the reliance on outsourcing of services needed, therefore, the IOC category was deliberately limited. However, lessons learned from slow implementation prior to 2006 contributed to a significant change in the project's implementation design and approach, including reversing the idea of outsourcing to rely on in-house capacity. This change of strategy called for increasing the number of ICTA contractual staff. It is important to note that this change of design contributed significantly to the project's achievements. However, the Bank and the Government should have agreed to restructure the project to reallocate the proceeds of the loan from the consultants' category to the incremental operating costs (IOC) category. In the absence of restructuring, confusion on the proper classification of ICTA staff vis-a-vis consultants remained throughout the life of the project, resulting in the withdrawal of funds from the wrong disbursement category.

2.4.7. The achievements of the project show that this matter did not hamper achievement of project outcomes and the quality of hiring has been determined to be good overall. Nonetheless, this constitutes a gap in implementation and supervision and is something that should have been clarified and resolved during implementation (see lessons learned section).

2.4.8. It should also be noted that under the first Credit the government had not signed the Subsidiary Grant Agreement (SGA) with its implementing agency (ICTA), as was required per the Credit Agreement between the IDA and the Government. The Bank failed to provide guidance to the Government and ICTA to rectify this at the time.

2.5. Post-completion Operation/Next Phase

2.5.1. The project achieved its objectives and has successfully created the platform for ICT development in Sri Lanka.

- 2.5.2. Key elements for project sustainability are in place with:
 - a) ICTA's staff and operating cost being funded by the Budget. Discussions with the treasury officials indicate continued commitment to support ICTA through the budget, even while encouraging ICTA to establish inter-ministry arrangements to capture the service provision revenues from ICTA services;
 - b) The majority of Telecenters (around two third) assessed as financially viable. This compares favorably to the international experience of such entities, which is around 50% viability in similar centers.

2.5.3. ICTA has adequate capacity and is well placed to sustain progress made under the project; to carry forward ICT reforms, and to provide effective citizencentered/business friendly government, to empower the poor and disadvantaged groups through increased and affordable ICT tools and to develop ICT leadership.

2.5.4. The need for sustained interest and efforts in supporting ICT development in Sri Lanka is warranted despite growing ICT literacy. This includes, inter alia, the successful nation-wide rollout of several e-services that were launched under the project on a pilot basis; the development of a participative and open approach toward policy and reform design to improve the sense of ownership and engagement of stakeholders; the need to inform users and beneficiaries at all levels (from public

servants to citizens) about the benefits of the reforms and their rationale; and the need to define a reliable and sustainable operational model to safeguard the quality of infrastructure maintenance to ensure reliable access and services which will benefit all relevant entities.

3. Assessment of Outcomes

3.1. Relevance of Objectives, Design and Implementation

3.1.1. **Relevance of the objective.** The PDO is in general consistent with the Government's roadmap for ICT which identified ICT as a means of achieving these goals. The PDO was also relevant to the World Bank's Country Assistance Strategy (FY03-06) as well as CAS (09-12) during AF, as described in Section 1. The objectives remain relevant as the government continues to focus on ICT as a tool for ensuring growth and development as evident in budget allocations, policy statements and activities.

3.1.2. **Relevance of the design and implementation.** The project was intended to address the poor coordination of IT related policies/programs, an under developed legal environment for electronic transactions, low ICT literacy, low level of ICT use within government, lack of ICT infrastructure in rural areas and lack of public access points to make ICT affordable to the majority of the population. The project was designed to address these constraints by modernization of government services to improve access to information, infrastructure and services. The design included technical assistance to build capacity for ICT leadership, improve policies for ICT diffusion, provide ICT literacy, promote ICT education and exports, and mobilize resources and innovation in ICT applications to meet priority social needs. Synergy between all these elements was a key success factor for the project and the e-Sri Lanka vision.

3.1.3. The project's design was relevant in that captured a cross country focus including economically poorer regions as vulnerable populations often resided in marginalized areas that were unlikely to attract private investment in information infrastructure or other complementary areas. ICT investments require complementary investments in human resources, local content, business process reengineering, and legal environment in order to reap the potential benefits from productivity and transformation. These areas were incorporated into the project design. Implementation of the various project interventions to enhance growth, employment and equity through affordable access to information technology was highly relevant and outcomes have been substantive.

Rating: Considering these factors, the relevance is rated Substantial.

3.2. Achievement of Project Development Objectives

3.2.1. As mentioned in section 2.1 b), the PDO formulation set broad economy-wide ultimate objectives, which created the challenge of attribution of the project's results to these wide-reaching objectives. Nevertheless, as discussed below, it is clear that significant achievements were attained under the project and as discussed in this section, there is evidence that the project contributed to the key elements of the PDO of growth, equity and employment. Further, the project did meet the PDO indicators, which were well aligned with the scope of the project and captured these dimensions

of growth, equity and employment. One of the five PDO indicators specifically focused on employment in the ICT industry, and two other indicators measured equity through assessing progress on the access and usage of telecenters (which aimed to empower rural populations in the north and east of the country which were conflict areas, and in the south, which had low levels of ICT literacy) and the quality of service under the e-Society program (that in turn was targeted at vulnerable groups and civil society). The remaining two PDO indicators captured growth and usage of ICT services, and while not directly capturing economic growth, are clearly correlated positively, as evidenced from a wide body of research that shows that ICT development – which the indicators capture – contributes to broader economic growth. Studies have shown that for instance, improved e-government services were correlated to labor productivity gains, reforms, better efficiency and transparency and their positive impact on economic growth. Studies have also shown that improved ICT infrastructure for communication and internet – which the project supported – can lead to growth in GDP; for instance, the Bank's 2009 report on ICT, but also from other reports from the Organization for Economic Cooperation and Development, the United Nations and McKinsey Global Institute.⁸

3.2.2. Performance on the PDO indicators was good. Three of the five indicators – including an indicator on equity (telecenters access and usage), growth (number of online transactions) and employment (ICT jobs created) exceeded targeted levels.⁹ The indicator on the quality of the e-Society program (measuring equity and quality of services) was met. The fifth indicator on the business usage index, while showing an improving trend, was not fully met at project closure. However, there has been continued good progress in 2014 and Sri Lanka's performance on the index that measures this progress (NRI) improved from an overall country ranking of 57 last year to 50. Performance on the PDO indicators was also satisfactory.

3.2.3. There is other evidence that the project contributed to establishing a platform that enabled growth of the ICT industry. The Lanka Government portal and the Lanka Gate middleware infrastructure provided a platform for a wide range of citizen and business services, which helped the country improve its overall business environment which was reflected in an increase in the Doing Business indicators/ranking. Through support to SLASSCOM, ICTA contributed directly to the creation of a strong industry association that in turn played a significant role in the growth of the ICT industry, including in terms of outsourcing and exports. Notable progress was made and this was recognized by external audiences. A few examples follow. Sri Lanka was awarded the "Outsourcing Destination of the Year" by the National Outsourcing Association (NOA), UK in 2013. Sri Lanka was ranked: in the top 10 most improved countries for doing business in 2013, among the top 25 global outsourcing destinations

⁸ Some select studies: Telecommunications and Economic Growth, World Bank, 2009; Information and Communication for Development, World Bank, 2009; E-Government for Better Government, OECD, 2005; Internet Matters, McKinsey 2011.

⁹ Employment increased by more than 3.5 times the baseline value. While there is a question of attribution to the project, and clearly ICT employment grew as a result of other initiatives as well, it is equally clear that ICTA and the project played a significant and positive role in this. Quite apart from the enabling infrastructure, ICTA supported many other activities that helped build capacity and supported growth of the industry. ICTA trained private sector ICT professionals and promoted awareness (over 30,000 IT/ITES personnel benefited from this), facilitated the formation of a strong industry association which in turn played a significant role in the growth and development of the ICT sector, supported an accreditation program and direct communication and marketing efforts for the industry, market research, program to support start-ups in ICT, etc.

by AT Kearney, and among the top 30 outsourcing destinations by Gartner. Sri Lanka is the highest ranked country in South Asia on the United Nations e-Government index. Growth in ICT exports – which resulted from a stronger ICT industry and improvements in the legal, regulatory and institutional capacity that the project contributed to¹⁰ (see Annex 2) – were strong, and contributed to broader economic growth.

3.2.4. The project contributed significantly to mass e-literacy and the 740 telecenters that were established are used by over 70,000 citizens – in the rural and peripheral areas of the country – on a monthly basis. The e-Society program reached out to vulnerable communities and promoted grassroots level innovation (see Annex 2) while the e-local language initiative also improved accessibility of e-government services for all ethnic communities, thereby contributing to the objective of promoting equity.

3.2.5. The ICT infrastructure that was created was not only a vital public good that supported citizens and businesses in their transactions, but also greatly helped improved efficiency and transparency of government service provision. The project supported significant improvements in service delivery of government services, including common processes such as online tax filing, railway bookings and drivers' license renewal (see Box 1). These are significant by themselves, but the outcomes go beyond this and cover important dimensions of *creating critical e-government market infrastructure, promoting equity, efficiency and transparency, building capacity and supporting growth* (see Box 2 for a few illustrative examples, the table below and Annex 2). The project has supported the transformation of e-government services in the country and the engagement with the Bank has enabled, over the years, input of technical knowledge, establishment of a professional implementation agency, independence for ICTA (which otherwise may not have been possible to the same degree) and implementation support. The achievements under the project by component are detailed in Annex 2.

Box 1: What ICTA means for the common citizen – a true anecdote¹¹

"My mom is 80 years old, educated up to 10th grade, married young, and never has been employed. She reads and writes perfect English, having schooled during colonial times. She runs the household efficiently and very carefully. She has never used computers, her technological knowledge is limited to using the TV and few household appliances, however, this is about to change. When I visited her in February 2014, she was buzzing to show me something. Soon she told me about transferring a plot of land to one of our cousins, and told me getting the title deed extracts was very easy, within half day they got it. I looked at her in disbelief thinking finally her old age is catching up with her. Mine was a painful experience of going to the land registry and wasting time on and off for at least 3 weeks, and if you know

¹⁰ The ICT/BPO industry was a nascent industry in 2005. The industry had multiple groups without a clear voice and fragmentation of industry policy was very apparent. ICTA bought these fragmented groups to a more organized form and helped form SLASSCOM (the software export arm of the industry) by way of funding their activities and coordinating the efforts in the initial stages. The strengthening of SLASSCOM enabled the industry to lobby effectively for government support as reflected in advancements in policy (and budget) as announced from time to time. In addition to facilitating coordination and creating an enabling environment for the industry, ICTA also funded the industry in capacity building and creating business linkages. ICTA financed training (individual certification, basic skills training, etc.) of approximately 35,000 ICT/BPO related personnel. ICTA also helped to: build international and local business linkages in the ICT sector; strengthen ICT associations (e.g Spiral of Innovation targeting newly created ICT start-ups in partnership with 23 international IT organizations, including Microsoft, Intel and Oracle); and support ICT companies for accreditation purposes. In recent times, GoSL has identified this sector as a high potential growth area both in terms of value and job creation potential.

how.... you would get them faster. I was not so knowledgeable those days. She laughed and said no in Kottawa land registry is online now. Pushing for details I found out that ICTA has carried out the e-land register project in Delkanda land registry. Amazing. More surprises yet to come. She told me that she is going online. My niece has introduced Lanka Gate portal to her and she is slowly using it to find out train schedules (their primary mode of travel long distance), check fish price in the local market, and even to check postal codes. All important day to day things."

Box 2: Some illustrations of e-government services supported

Colombo Municipal System

The on-line rate payment system that was introduced in the Colombo Municipal System has enabled the Colombo city residence to pay Rates, Trade Tax, Tax on Business, Market Rental, House Rental, Shop and Boutique rental and Hawkers rental. This is a 24 hour e-service and has facilitated all tax payers to make their due payments via internet or mobile easy cash and save time without having to stand in lines for a long period of time as was the case prior to the introduction of this system.

Western Province Motor Commissioner's Department

Under the project, the Motor Vehicle Revenue License process in the Western province was automated. In the Western approximately 5000 revenue licenses have to be renewed on daily basis. Before automation, the Department encountered long queues of waiting customers, volumes of manual files, delay in service delivery, unhappy customers and staff members. Further, issue of revenue licenses were confined only to vehicles belonging to that particular division. With automation, the issue of a revenue license has been reduced to 90 seconds on average. Manual filing system has been abandoned. A vehicle owner in the western province can obtain the revenue license from any DS office as all 38 DS offices in the province are connected by LGN. All data relating to a particular vehicle is available in the system.

Department of Land Commissioner

Majority of the land area in the island is owned by the state. Land commissioner is responsible for all activities relating to state land. Land commissioner has delegated land identification and preparation of land alienation proposals to respective Land Field Officers of the Provincial Land commissioner attached to DS offices. Previously a citizen had to submit an application for obtaining land from the state to the DS office. Thereafter Field Officer had to visit the location and submit his recommendation to the Divisional secretary who in turn submitted same to the Provincial Land Commissioner and thereafter to National Land commissioner for approval. This manual process took more than 6 months to complete. With the automation, time taken for approval has been reduced to 2 weeks. The applicant can track progress of his application, as he receives an alert message on his mobile phone at each of the approval stages. In addition, Land Title deed extracts can now be obtained in 30 minutes as compared to 2 days prior to this intervention.

3.2.6. For the reasons discussed above, even though the broad PDO definition created a challenge of attribution, it is clear that the PDO indicators measured the key dimensions of the PDO and were achieved, the intermediate indicators were also mostly achieved, and the project contributed to the objectives of growth, equity and employment and hence the assessment of outcomes is **Satisfactory**.

3.3. Efficiency

3.3.1. While the project took longer than originally anticipated, and this has a bearing on overall costs and efficiency, overall in terms of efficiency, the project is deemed to have achieved its objectives, and the achievements can be considered **Substantial**. The additional financing project extended the closing and supported the roll out and scaling up of activities that were remaining from the parent project.

3.3.2. The efficiency in the project was based on increased access to information by citizens; increased public sector cost efficiency and transparency; improvement in the quality of governmental services; reduction in transaction costs and time spent (for government, businesses, and citizens); increased contribution to GDP by the private sector in general and the IT industry in particular; ICT-enabled increases in productivity across government and industries; and an enhanced policy and legal

environment¹². IT related exports increased from US\$100 million at the start of the project (and US\$213 million in 2005) and are now in excess of US\$720 million. While other factors contributed to this, the project made a contribution as well by supporting basic ICT infrastructure, strengthening the policy environment and the industry association and training and capacity building, which in turn provided the enabling framework for the industry to grow. From 2005-13 the share of ICT in total exports increased five-fold from 1% to 5%; while the share of ICT exports to service sector exports trebled from 5% to 15%.¹³ The establishment of the government-wide intranet has enabled government agencies to access and share each other's information and data seamlessly, substantially reducing government processing and transaction times e-Procurement has provide access to tender issuance, monitoring, and costs. evaluation, and all procurement-related transactions, and have significant economic benefits, including transparency, lower prices resulting from increased competition, increased participation by SMEs, diffusion of e-business practices, and lower transaction costs and increased speed of processing tenders. The e-pension processing and delivery system has benefited a large number of pensioners and their dependents.

3.3.3. ICTA, as an institution, compares favorably in size vis-à-vis institutions with similar mandate, further enhancing the overall perspective of efficiency of the project.¹⁴

3.4. Justification of Overall Outcome Rating

Rating: Satisfactory

3.4.1. The overall outcome rating is Satisfactory, taking into account the factors discussed in sections 3.1 to 3.3.

3.4.2. The project remains highly relevant to the country's development objectives and for the World Bank's assistance strategy. Efficiency of achieving the outcomes will also be greatly enhanced by the long-term benefits, especially those related to provision of transparent and efficient government services, increase in specialized ICT skills and broad ICT literacy at all levels of education and job creation through a dynamic and competitive ICT sector.

3.5. Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects and Social Development

3.5.1. The project contributed to social development, with a special emphasis on integrating the poorest populations of the South and North East regions of the country through the use of ICTs. Under the project's participatory approach, government stakeholders were engaged in the e-Policy, Leadership and Institutional Development Program and the Reengineering Government Program; industry and academia were

 $^{^{12}}$ Even though, as mentioned in section 3.2 above, these economy-wide indicators are influenced by a host of factors, of which the project is only one.

¹³ ICTA data.

¹⁴ ICTA (80 staff at project closure; country population 21 million) compares favorably to the under implementation similar Bank ICT projects in both Rwanda (900-1,000 staff; for a country with a population of 11 million) and Moldova (29 staff; country population of 3.5 million) (see also Annex 3).

engaged in the ICT Human Resources Development and Industry Promotion Program; rural populations, through the Telecenter Development Program; and the poorest and most vulnerable populations, through the e-Society Program. Synergies between telecommunications, Telecenter, e-government, and e-society programs were encouraged to render information access and service provision relevant to rural populations (Annex 2 provides details including on the outcomes on the project's contributions to the spread of ICT services in rural areas). Telecenter and e-Government survey results (Annex 5) and observations from Bank implementation support missions clearly reinforce the overall positive results from ICTA's initiatives.

(b) Institutional Change/Strengthening

3.5.2. The project had a substantive impact on the institutions that participated, which included ICTA, Ministries and other government agencies. e-Sri Lanka entailed a new institution that had to be created from scratch, building on lessons from pioneering nations, and attracting new talents and business-like practices to the government—drawing on local company law and endorsed by a parliament act. ICTA, through the support from the project, was able to build its capacity as an e-leadership institution. In addition, the project brought about change in the culture and improved efficiencies in the use of IT by Ministries, government agencies and private sector institutions, which has now been institutionalized within the government.

(c) Other Unintended Outcomes and Impacts (positive or negative)

3.5.3. Ongoing and planned Bank projects at that time which supported promotion in diverse sectors such as education, poverty reduction, and reconstruction efforts were expected to be greatly aided by the overarching umbrella of the e-Sri Lanka program. These ongoing projects included the North East Reconstruction Program, the Community Development and Livelihood Project, Improving Relevance and Quality of Undergraduate Education, and Economic Reform Technical Assistance. These programs and others were focused on improving the investment climate and capturing future areas of growth. The activities sponsored through other Bank projects were expected to be substantially strengthened by (a) improving access to information and communication tools (through e-Sri Lanka's infrastructure and telecenter component, which promoted content provision at government and local levels); (b) strengthening the ICT industry and ICT education (through Industry Promotion Fund activities that included a program for diffusion of ICT in the private sector and an awareness-building program among SMEs and others); and (c) developing a common information and communication platform for the whole economy.

3.6. Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

3.6.1. Several beneficiary surveys were carried out during implementation (see Annex 5). A combined survey was carried out for the Telecenter and e-Society components. The findings of the surveys indicate that both components contributed to high literacy rates in these communities and changed the use of ICT tools to facilitate their daily activities. The survey indicated that the Telecenter users had gained sufficient knowledge, skills and confidence in ICT, leading them to invest on computers, laptops, internet connectivity, etc. It can be concluded that the impacted communities had accepted the value and advantage of using ICT to enhance their livelihoods and started to change their traditional ways of doing things with much convenient and cost effective technologies. They have changed their methods of

communication with emails, Skype and accessing of information via the internet. The program has slowly but surely empowered the rural societies in transforming their ways of doing things in an efficient, convenient and cost effective manner.

3.6.2. ICTA's strategic communication program was launched to create a broadbased awareness on all programs and projects implemented by ICTA across government, business sector and society. A survey was carried out to assess the effectiveness of the strategy. The conclusion was that ICTA had carried out a very effective media campaign to promote ICTA programs and projects. The outcome was that ICTA programs and projects were able to effect positive social changes among all communities.

3.6.3. The Local Language Initiative (LLI) survey indicated that the LLI has been a success as far as the key performance indicators are concerned. The level of awareness and ability of using standard based local languages has been commendable with 84% of awareness among users about standard based local languages and 72% users being able to use the standard based local languages in computing.

4. Assessment of Risk to Development Outcome

Rating: Negligible

4.1. The key investments of the project were completed and continue to be implemented. Although the government did change during project implementation, the risk that the program would be de-railed did not materialize. Instead, ICT continued to be a central piece of the new government's reform program. As discussed above in section 2 a majority of telecenters have been found to be sustainable. The program design pioneered the first truly integrated approach to a nationwide e-development program. It attempted to address through its six program areas all the different building blocks which need to come together to build a successful cyber society enabling ordinary people, businesses and government to reap the dividends of the knowledge economy. E-Lanka therefore has built this platform which will function as a spring board to launch a multitude of sustainable and innovative initiatives, whether they are by government, citizens or business. Recent progress in 2014 - such as Sri Lanka jumping 41 places in the UN e-Government Development Index to become the highest ranked South Asian country – is testimony to the fact that progress continues and remains a focus area for the country. Sustainability of the e-Sri Lanka's achievements has been further enhanced by the Government's desire for future Bank involvement in this sector and the ongoing commitment for budget support for ICTA's operations.

5. Assessment of Bank and Borrower Performance

5.1. Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Moderately Satisfactory

5.1.1. The Bank responded in a timely manner to the needs of the Borrower by designing and implementing this Project to enhance the access to and use of ICT, use

of public services on-line by business and the public and enhance the competitiveness of the private sector. The Bank was also able to utilize the experience it gained from implementing projects¹⁵ world-wide to ensure quality at entry in the project design and to build in efficient implementing arrangements. The Bank engagement enabled the establishment of ICTA as a dynamic private sector type of an agency with an appropriate compensation package that would otherwise not have been easily possible. The Bank team comprised experienced technical and operational staff who contributed significantly to the project design.

5.1.2. However, as discussed above, there were also some shortcomings in design including:

- i) A PDO that should have been stated to more clearly capture project outcomes;
- ii) Underestimation of the complexities on the RTN component leading to its subsequent cancellation;
- iii) Failure to design measures to proactively address ICTA's lack of experience implementing Bank projects and limited procurement capacity in the initial stages, even after this was identified as a risk for project implementation; and
- iv) Overestimation of the private sector capacity to provide services, which eventually led to the need to build such capacity at ICTA.

(b) Quality of Supervision

Rating: Unsatisfactory

5.1.3. On the technical aspects, the Bank was responsive to the Government's requests throughout Project implementation, and demonstrated flexibility and understanding in the use of project resources. As and when required, the Bank responded positively to the Government's requests for project restructuring in response to external environment and evolving country needs. The Bank team included ICT professionals and this enabled provision of quality technical input at various stages of project implementation. The Bank team's implementation support was appreciated by the client and clearly, in overall terms, contributed to enhancing technical input to project implementation and to the achievement of PDOs.

5.1.4. However, there were significant areas on which the Bank team failed to act promptly to address problems during project implementation. These include the following:

- The implementing agency followed its own procurement guidelines on staff recruitment, instead of those of the Bank, for the reasons identified in Section 2.4. Even after this was identified, the team failed to take action to deal with the resulting ambiguity and bring prompt resolution to this issue.
- ii) Failure to proactively address institutional capacity shortcomings at the implementing agency: Given the complex nature of procurement of

¹⁵ It should be noted that e-Sri Lanka was the first broad-based e-development project for the Bank and its success was expected to provide a model to be replicated in other countries.

equipment involved, the Bank should have guided the Borrower to acquire more IT and procurement expertise and the required TA during the design stage which would have helped to mitigate the delays encountered at the early stages of project implementation (see under lessons learned).

iii) The Bank management and task team should have been more conscientious in documenting and bringing to closure some of the agreements on the allocation of project proceeds to reflect the staffing costs in the correct category (incremental operating costs).

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately Unsatisfactory

5.1.5. Overall, the Bank aimed to respond to the important needs of the client through an innovative and comprehensive project that ultimately demonstrated important benefits to the country. However the shortcomings at design stage affected the implementation of the project. Similarly the failure of the Bank to promptly address identified problems and ensure full compliance with Bank procurement guidelines undermined the quality of the bank's performance during implementation.

5.2. Borrower Performance

(a) Government Performance

Rating: Satisfactory

5.2.1. The Government performance is rated satisfactory. The Government demonstrated strong commitment as witnessed in its policy formulation with respect to the ICT sector and its commitment to establish ICTA as an independent and professionally set up organization and its support to ICTA throughout project design and implementation. While there were some delays in the early stages of implementation as project implementation progressed, the project received strong support from the government and was implemented satisfactorily. Government also showed its continued commitment to the sustainability of the project by providing budget funds to support ICTA after the project closed.

(b) Implementing Agency or Agencies Performance

Rating: Moderately Satisfactory

5.2.2. Despite ICTA's initial lack of experience in working with the Bank, lack of knowledge of Bank procedures and confusion and implementation issues created by the "Loan Covenant" signed in 2004 (see Section 2.4), overall outcomes are positive. As implementation progressed ICTA was able to build its institutional capacity and has become a dynamic organization which is capable of moving forward the government's ambitious program in the ICT sector. The agency has created a core group of staff in a Government agency to share knowledge (good practices) and provide high level technical support to Government agencies in enhancing the information infrastructure and designing and maintaining e-Services such as e-Revenue, online Visa, Birth, Marriage and Death certificate system, e-HRM programs, drafting e-Laws, improving ICT literacy in the country, creating awareness and providing 'help desk services' for the Government agencies in an integrated manner.

The high level technical expertise acquired during the project has been internalized into Government through ICTA to contribute to the next phase of ICT development.

5.2.3. Despite the overall achievements, the project experienced several implementation difficulties. As explained above in section 2, project implementation shows fluctuating performance at various points in time. Several procurement and financial management issues were encountered due to lack of properly trained staff in the initial years; there were delays in key project implementation activities including in hiring senior management in ICTA which led to implementation delays, weaknesses in monitoring and evaluation which was rated low in between, are some illustrations of this. A key matter of non-compliance was that the SGA between the government and ICTA for the parent project was not signed although this was a loan covenant. Even for the additional financing the SGA was signed only towards the end of the project (September 2013). While this did not directly affect project implementation nevertheless it was a breach of a legal requirement. For these reasons, while recognizing that but for ICTA's role the project outcomes would not have been as strong as they are, there were moderate shortcomings in implementation and hence overall performance is assessed as Moderately Satisfactory.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately Satisfactory

5.2.4. While Government's performance has been steady over the years, as has been ICTA's and while the project outcomes have been good, for which a lot of the credit goes to ICTA, there have been a variety of implementation issues and delays as discussed above and hence the overall Borrower performance is rated as Moderately Satisfactory.

6. Lessons Learned

6.1. There are important lessons to be learned from the project:

6.1.1. *Problems identified must be swiftly brought to full resolution.* This is particularly important when an element of confusion or ambiguity relates to the application of the Bank's fiduciary guidelines or legal requirements. When problems arise from perceived or real inconsistencies between legal documents or ambiguity, the Bank team must involve the participation of legal experts in resolving such inconsistencies or ambiguities. Whenever needed, the project must be restructured to formalize the arrangements needed to address the problems identified.

6.1.2. The PDO of the project must be formulated in a way that is fully coherent with the scope of the project. The project indicators must also be fully aligned with the PDO and allow for ex-post verification of the success of the project in meeting its stated objectives. Further, the PDO must provide a realistic perspective of what the project can achieve in a way that can be objectively measured.

6.1.3. The lack of implementation capacity or experience in the implementing agency must be addressed in a proactive way, before it translates into shortcomings in project implementation. While this was a risk that was identified at design stages, the mitigating measures were not fully and proactively put in place in order to avoid its negative impact during the initial stages of implementation.

6.1.4. When the participation of third parties is needed for the project implementation, it is important to engage with those parties during project design to assess realistically their ability and willingness to participate. The cancelation of the RTN component and inability to outsource services from ICTA to private providers exemplify areas on which the design of the project relied on unrealistic expectations on third parties.

6.1.5. A well-established M&E system is critical for proper monitoring and evaluation for a project. To be effective, a project M&E system should be validated by the stakeholders and as such their strong involvement would be ensured. In the design stage, a participatory approach was used in designing the M&E instruments for the project. These measures led to a higher awareness of M&E among a wider audience of stakeholders, such as primary project beneficiaries in government organizations and in communities throughout the island. As a result, the project was able to collect crucial information for effective project monitoring and evaluation.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies – ICTA's comments on the draft ICR, focused primarily on two facets: one, the rating of outcomes, and, two, the assessment of ICTA's own performance. On the overall outcome assessment, ICTA provided additional information that helped to document the achievements of the project, which in turn supported the case for the project's Satisfactory rating. On ICTA's own performance, ICTA pointed out that whilst the ICR recorded ICTA's role in the success of the e-Sri Lanka Project, it did not agree with the rating of Moderately Satisfactory for its performance. The ICR team took a careful look at the comments made, and edited the text to reflect feedback, where appropriate and based on objective information. After careful consideration of the additional information provided by ICTA, the decision was made to maintain a rating of 'Moderately Satisfactory' based on the rationale outlined in section 5. ICTA also suggested an increase in the rating of the Bank team's performance during implementation. Here again the comments were considered carefully, but a decision was made to maintain unchanged the rating for the reasons outlined in this report. Other technical and data related points and issues raised were also closely reviewed and the text edited, where it was considered appropriate based on factual information.

(b) Cofinanciers - N/A

(c) Other partners and stakeholders - $N\!/\!A$

Annex 1. Project Costs and Financing

Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Of Which IDA (USD millions)
ICT-Policy Leadership Institutional Development (Including IOC)	8.00	18.63	16.63
ICT Education and Industry Promotion	5.88	6.49	5.99
Regional Telecommunication Development Network **	19.00	0.83	0.83
Telecenter Development	7.40	11.40	9.20
Re-engineering Government	35.19	37.28	13.48
e-Society	3.53	2.94	2.94
Project Preparation Facility (PPF)	3.00	2.53	1.53
Unallocated	1.00		
Tsunami Fund *		5.72	5.72
Total Project Costs	83.00	85.82	56.32
Total Financing Required	83.00	85.82	

(a) Project Cost by Component (in USD Million equivalent)

(b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage at Appraisal
IDA	53	53	56.32	66
GoSL and Donor Financing	30	30	29.50	34

* US\$5.72 million was transferred to the Tsunami Fund in 2005.

** US\$8.7 million was cancelled in 2011.

*** US\$11 million was approved as AF in 2012.

Annex 2. Outputs by Component

Results of the project can be categorized into the following thematic areas and outcomes:

Thematic Area	Outcomes
E-Government	This infrastructure was critical for achieving connectivity through the whole
Market	government sector and inclusiveness in terms of efficient provision of services to
Infrastructure	all citizens. To improve access to citizens throughout the country to government
	eServices resulting in efficiency improvements and effectiveness in public service
	delivery G2G, G2C and G2B.
	Horizontal Infrastructure - I GN Lanka Gate:
	 Information Systems: e-Pension e-Population Digitalization of Birth
	Marriages Death certificates e-Revenue license other e-Services etc:
	 I GN connected over 550 central and provincial government
	organizations to provide secure electronic communications:
	 Significant improvement in Sri Lanka's (NRI) index ranking specifically
	in the category "I aws relating ICT" which rose from 87^{th} to 48^{th} .
	Adoption of 3 major e-laws:
	 Significant improvement in Sri Lanka's (NRI) index ranking specifically.
	in the category "I aws relating ICT" which rose from 87^{th} to 48^{th} .
	Adoption of 3 major e laws:
	Established SI CEPT to mitigate and handle other threats, thereby
	promoting information socurity:
	• anabled the use of Credit Cards and electronic payment methods
	(including mobile payments) to pay for government services: and
	Provision of about [48] e-services G2C
Fauity	Beducing the digital divide between western province and other
Equity	Reducing the digital divide between western province and other provinces including North and East
	Significant contribution to mass a literacy and ICT culture in rural groups
	• Significant contribution to mass e-interacy and TCT culture in rural areas;
	• Over 740 telecenters established and used by over 70,000 citizens on a
	monuny dasis;
	• Partnersnips established with multinational companies (such as Microsoft
	to promote IC I usage for migrant workers), (Such as MAS Holdings, to
	train workers of garment factories), NGOS (such as Job Search, Sanasa,
	Sarvodaya, Telecentre.Org), and aid agencies (IDRC, UNDP);
	• Telecenters have become breeding grounds for ICT-enabled rural
	entrepreneursmp;
	• The e-Society component attracted international recognition and awards
	for promoting grassroots community-implemented innovation;
	• An e-local language initiative introduced electronic Sinhala and Tamil
	font and numerals, certified by ISO/SLS, taking online content closer to
	local communities; and
	• E-Society programs have been able to develop value added products
	through the Tele-centers creating them as delivery points for services of
	some corporate businesses such John Keells (Tailying quotations with
	(Culturing in actual prices), Intel (II education programs), Dialog, HNB Assurance
Efficience a 1	(Conection insurance premium) etc.
Efficiency and	• SMS and email transmissions are now admissible as evidence in a court
Transparency	of law;
	• Significant reduction in time of e-government services;
	• Financial services and confidence in bank transactions have improved due to the enhanced safety and security:
	• The network of IT professionals in government serves as a launch had for
	mainstreaming IT in government Build up capacity of CIOs.
	• Financial regulations were amended to enabled the use of Credit Cards
	and electronic payment methods (including mobile payments) to pay for
	government services:
	 Sri Lanka was awarded the "Outsourcing Destination of the Year" award
	by the National Outsourcing Association (NOA), UK in 2013;
	• Lanka Government portal used by over 11.5 million ¹⁶ ;
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	• Overall workforce has grown from 50,159 in 2010 to 75,107 in 2013—a
	rise of 50% at compound annual growth rate (CAGR) of 14.4%; and
	• Dedicated Government cloud (first of its kind in South Asia), an
	interoperability framework (standards to secure data sharing), and local
	language initiative to enable trilingual websites and databases.
Capacity	• Establishment of ICTA as the engine to drive the IT reforms;
	 Training 850 government staff and also training Nenasala officials;
	 Managers and professionals in the IT/ITES industry were trained to
	improve quality, technology and competitiveness of the industry;
	• In addition under AF, 55 Trainers and around 1053 staff in private
	companies were trained under ITES skilled training program to increase
	the skill base; and
	• Several programs conducted to promote country as a destination for IT
	exports and promote overseas business linkages.
Growth	• Creation of new jobs and enhancement of existing skills;
	 Increase of IT related exports in the range of \$720 million; and
	• Newly-created ICT start-ups, in partnership with 23 international IT
	organizations including Microsoft, Intel, Oracle.

The activities and the outcomes under the original components and the activities under the AF are described below.

Component	1: ICT,	Policy,	Leadership a	and Institutional	Development	Program:
1		• • •	1		1	

Indicator	Original/Revised Target	Actual
50 government sector org. connected under LGN	50	74
Phase 3		
# of government agencies with operational portal or	380	495
website		
20 additional e-services created for and used by	20	25
citizens, public/private sectors		
% of time taken to obtain government services and	10%/70%	Average time taken 2h 40
level of satisfaction.		min, reduction of 29%;
		Level of satisfaction 88%
50% of government organizations compliant with e-	50	70
government policies		
200 divisional secretariats civil registry e-	200	89 (See Foot Note 1)
government application		
850 government officers trained under LGN Phase 3	850	850

This component was implemented satisfactorily and the targets were met. Considerable impact was achieved as a result of the implementation of the E-government Policy 2010 (with more structured ICT adoption within government and adherence to minimum policy and regulatory standards). The progress made was reflected in the significant improvement in Sri Lanka's Network Readiness Index (NRI) index ranking, specifically in the category "Laws relating ICT", which rose from 87th to 69th position in 2013 (compiled by the World Economic Forum). With these reforms, Sri Lanka became a regional leader in terms of legal and policy reforms to facilitate e-transformation and transparency¹⁷. SMS and email transmissions are

¹⁶ This refers to the number of hits on the portal and not individual citizens.

¹⁷ A case in point was the posting online of the Supreme Court cases on http://www.supremecourt.lk, which has enjoyed widespread support and has received over a million hits.

now admissible as evidence in a court of law. Financial services and confidence in bank transactions have improved due to the enhanced safety and security of LANKA SIGN. Sri Lanka was also among the first three Asia Pacific Nations to adopt the UNCITRAL Standards for e-Commerce, and Sri Lanka was included in the first Asia-Pacific UNCITRAL event, promoting ICTA's role in the entire Asia-Pacific region.

As Sri Lanka's e-government capacity increases, the country has taken an active national, international and regional role. The aggressive communications strategy has enhanced ICT awareness in the country, in accordance with the government's renewed emphasis on ICT literacy. The SLCERT – an ICTA subsidiary implemented as a public private partnership – has continued with its information security focus across various sectors and provided limited fee based services on cyber security and is a member of Asia Pacific CERT. The work under the e-Sri Lanka projects has attracted regional and international recognition, including two World Summit Awards in 2009 and three FutureGov Awards in 2011, as well as the Chairmanship of UNESCAP 2008-12.

The integrated communication program has been able to build a brand name for ICTA/e-Sri Lanka as the agency for improving ICT literacy and penetration in the country. In December 2013, the Legal Draftsman formally issued the Electronic Transactions (e-Population) Regulation to be published in the Government Gazette which legalized the issue of e-Birth certificate under the Population Register which was piloted in 5 districts. This has led to setting up of a full-fledged e-Population Registry. The implementation of Local Language Initiative (LLI) enabled the use of ICT in both Sinhala and Tamil, with the development of Unicode fonts, keyboard layouts, keyboard input, sorting, locale information and approval of Sri Lanka Standards etc. All of which was needed for local language computing and for other program areas such as e-Government and e-Society.

Outputs: The e-leadership component transformed the ICT framework in the country as summarized below: (i) Supporting the adoption of three major e-laws and a series of supporting legislation¹⁸, as well as providing legal support and capacity building to ensure effective implementation of the newly-adopted legislation¹⁹; (ii) Introduction of 795 Chief Innovation officers (CIOs), within 97% out of 815 target government organizations in Sri Lanka, as champions of e-government, with a mandate to promote electronic services and ICT usage within their respective agencies²⁰; (iii) Supported an ICT communications strategy including local and higher-profile events such as e-Asia 2009, as well as a regular media involvement in radio, TV, electronic news, and print, in 3 languages (Sinhala, Tamil, and English); (iv) ICTA took the lead role with Finance Ministry to prepare the Financial Regulations (FR 447/2010), which enabled the use of Credit Cards and electronic payment methods (including mobile payments) to pay for government services; (v) In the area of Cyber security and Cybercrime,

¹⁸ Legislation passed included the Electronic Transactions Act No.19 of 2006, Computer Crimes Act No. 24 of 2007, Amendment (2009) to the ICT Act No. 27 of 2003, Financial Regulation Circular #447/2010 of the Ministry of Finance on the use of Electronic Payments for Government Transactions, Government Identity Certification, and the Policies and Procedures for ICT Usage in Government .

¹⁹ For training, ICTA cooperated with Ceylon Chamber of Commerce, Professional Organizations, the Sri Lanka Law college, the University of Moratuwa (for the e governance MBA), the Supreme Court, Ministry of Justice, the Estonia e-government authority and the National Institute for Smart Government (India).

²⁰ Including 45 ministries, 80 departments, 19 district secretariats, 271 divisional secretariats, 103 provincial councils, and 110 statutory bodies and other government agencies.

ICTA established SLCERT to mitigate and handle cyber threats and incidents; and (vi) Recognizing the need for banking sector to have a digital certificate framework to have appropriate security, the National Certificate Authority was established through SLCERT at the request of the national check-clearing house, LankaClear, which became the first financial sector specific certificate Authority issuing Digital Certificates to commercial banks and was branded LANKA SIGN.

Under AF, two components were added to supplement the original component: (i) An Integrated Communications strategy was developed and implemented at the national, district and village levels to create awareness at all levels about on-line services offered by the government; and (ii) Common Enabling Environment component enhanced existing laws and developed new laws to enable the private sector to grow and to ensure competition and a level playing field. In addition expansion of local language compatibility with widely used software packages were supported. CIO's were further trained on implementation of government ICT policy and effective delivery of on line services to citizens and businesses. Cyber security and data protection was another area which was supported under AF.

e-Laws: ICTA drafted several ICT $Laws^{21}$, which the government enacted as legislation through Parliament. These key policy reforms were undertaken by ICTA, based on its reform mandate to facilitate e-Transformation and ICT Development²². In order to ensure efficiency and effectiveness of the ICT laws and policies finalized under this component, ICTA has continued to ensure that the policies and regulations formulated under the Electronic Transactions Act supported the development of the private sector. Recognizing the need for banking sector to have a digital certificate framework to have appropriate security safeguards to in-still greater customer confidence, the Central Bank of Sri Lanka (CBSL) worked closely with ICTA and mandated Lanka Clear Limited (LCPL)²³ to be the financial sector Certification Services Provider (CSP).

Digital Certification: In November 2009, the *Lanka Government Network* – *Certificate Authority* (LGN-CA) was established. The LGN-CA was designed to facilitate the digital certificate requirements of the public sector government organizations. LGN-CA issues digital certificates to organizations after following a specified request validation and approval procedure. The NCA was the apex statutory entity required to be established by an Order published in the Gazette and was to serve as the standard setting body to regulate the Certification Service Providers in Sri Lanka. After extensive deliberations between multiple stakeholders, an Order under Section 18 was published in the Gazette Extra Ordinary No. 1829/29, dated September 24, 2013 assigning ICTA to host the National Certification Authority for the purpose of the Electronics Transactions Act. ICTA and Telecommunications Regulatory Commission of Sri Lanka, Defense Ministry, Sri Lanka CERT and Lanka Clear

²¹ E-Laws passed by Parliament includes the Electronic Transactions Act No.19 of 2006, Computer Crimes Act No. 24 of 2007, Amendment (2008) to the ICT Act No. 27 of 2003, Financial Regulation Circular #447/2010 of the Ministry of Finance on the use of Electronic Payments for Government Transactions, Policy for e-Signature usage in Payment & Settlement System at Lanka Clear and the e-Government Policy for ICT Usage in Government (2009). SMS and email transmissions are now admissible as evidence in a court of law

²² A case in point is the posting online of the Supreme Court cases, free for download: http://www.supremecourt.lk, which has enjoyed widespread support and has received about one million hits

²³ Lanka Clear, which has also been statutorily empowered under Section 98 of the Monetary Law to handle all interbank payments owned by commercial banks and CBSL.

constitute the National Certification Authority Task Force jointly chaired by ICTA and CBSL for formulating policies, standards and governance measures relating to the National Certification Authority.

On December 12, 2013, the Legal Draftsman formally issued the Electronic Transaction (e-Population Register) Regulation No. 1 of 2013 in all three languages to be published in the Government Gazette. Drafting of a series of similar Regulations under the Electronic Transactions Act to give legal effect to other e-Gov activities, including e-Services such as e-Revenue License System is expected to continue through 2014. ICTA has also finalized a Data Protection Code of Practice and this will be shared amongst stakeholders and adopted as a best practice regime in 2014/15 time frame. ICTA is in the process of identifying and addressing legal issues concerning Cloud hosting arrangements to better enhance the Cloud based services ICTA can offer in the future depending on the availability of funds.

SLCERT: Institutional arrangements, such as SLCERT were also put in place by ICTA under the original e-Sri Lanka Project. The SLCERT was established on 1st July 2006 by the ICTA. The SLCERT handled incidents relating to phishing attacks in the banking industry, web compromise incidents and consultancy and awareness programs relating to cyber security. During the AF, efficiency of SLCERT was further enhanced. In 2012 the total incidents reported to SLCERT increased to 1840 compared with 1469 incidents reported in 2011. This is a 25% increase in reported incidents compared with year 2011.

Local Languages Initiative (LLI): LLI was also funded under this component. The objective was to ensure that ICT can be used in Sinhala and Tamil based on national and international standards, and to ensure that ICT in local languages was easy to use. Projects such as: (i) Enabling Sinhala and Tamil in mobile operating systems; (ii) Text to Speech System for Sri Lanka Tamil and Speech to Text system for Sri Lanka Tamil; (iii) Unicode compliant publishing in Sinhala and Tamil (iv) Developing a Sri Lanka Tamil language corpus; and (v) Developing Translation Tools to enable translations between Sinhala and Tamil have been implemented. According to the country-wide provisional data of the Local Language Evaluation Survey²⁴ the "Unicode" addresses the anomaly caused by numerous non-standard local language fonts. Over 84% of the surveyed users were aware of the availability of local language computing; 72% were able to use local language computing and users were able develop Unicode complaint local language websites. However, printers and publishers were unable to use it due to incompatibilities in printing and publishing related software, lack of knowledge about local language computing among private sector, communication centers, schools and ICT vendors. Department of Official Languages has been able to formulate soft copies of 30 different glossaries using Unicode complaint local languages. User satisfaction rate of use of local language computing was reported as 82% and Unicode compliant government sector organizations have exceeded 90% satisfaction.

²⁴ Local Language Evaluation survey – Final Evaluation – Draft report November 27, 2013. Provisional data obtained from the report.

Chief Innovation Officers (CIOs). Under this component one of the key activities was the creation and enhancement of the implementation of the e-Government initiatives using the staff of the respective organizations as change agents. Moving forward, this model needs to be reviewed and strengthened. It has been observed that the number of CIOs who are to act as change agents have been transferred without proper replacements which tends to affect the use of the LGN at optimal level. Under AF CIOs to be trained was estimated at 165 of which 89% have fully completed training while the rest have not been able to complete all the training modules. The Sri Lanka Institute of Development Administration (SLIDA) has introduced ICT courses in their induction programs for new recruits for the administrative and accountancy services so that all senior level staff in future will be adequately equipped to handle the LGN system and by end of the year there will be 103 additional officers who are potential CIOs. This has lead to a functional sustainability CIO concept in the government.

Integrated Communication. There was a need to create more awareness about government e-services, Tele-centers and overall services available to the general public via the project as awareness and usage especially in the rural areas was low. It had been observed that in the past the beneficiaries of the services were confined to more affluent areas. The focus of the additional financing aimed at creating awareness for major applications and other eServices developed under the Re-engineering government component. The strategy adopted was multi-pronged and integrated where all channels of mass media (TV, Print media and Radio) were used when a specific eService developed under the project was launched. In addition, a weekly TV and a radio programs were aired where awareness was created and discussions were conducted about the e-Services provided and other ICT related information to the general public. The total annual readership of newsletters are estimated to be around 2.6 million and annual listeners of radio programs are around 10.0 million. As a result, the ICT knowledge in rural areas has increased dramatically.

The educational programs in both Sinhala and Tamil (i.e Nenapiyasa, Subarathi, Arivodayam) during prime time have been popular especially among the students and the websites. In order to be present at the local level, notice boards, leaflets and bill boards were provided in the Divisional Secretariats/District Secretariats giving details of the services available and also having ICTA stalls in national events such as "Deyata Kirula", "Educational, Archaeological and Technological Exhibition" etc. which were frequented by people from all over the island. A felicitation event "Nenasala Swarna Sammana" was held to recognize the services rendered by Nenasala operators with participation of 700. A workshop was also held for e-Government policy stakeholders in December 2013 bringing together institutional heads, CIOs, representatives' from the academia and private sector. The integrated Communication team supported e-Services, e-Society, Local Language Initiative and the e-Journal.

e-Leadership: The project also forged strategic partnerships with donors, government, and other stakeholders, including Korean EXIM Bank, UNESCAP (UN), UNCITRAL (UN), Commonwealth Secretariat (UK), PLAN International, Internet Corporation for Assigned Names and Numbers (ICANN - US), APCICT and EDCF (South Korea), IDRC (Canada), and the Council of Europe. Many of these bodies have officially recognized ICTA as a member and stakeholder, frequently in a leadership role.

Common Enabling Environment. This aimed at enhancing the existing legal framework to support private sector growth, promote competition and create a level playing field, support cyber security and promote use of local languages in ICT for inclusive growth. ICTA had been supporting the drafting of regulations under the Electronic Transactions Act and also drafting new legislation for data protection and creating awareness of cyber security among the public. In December 2013, the Legal Draftsman formally issued the Electronic Transactions (e-Population) Regulation to be published in the Government Gazette which legalized the issue of e-Birth certificate which has already being piloted in 5 districts under a dual system. This will lead to setting up of a full-fledged e-Population Registry. In addition, the Sri Lanka Computer Emergency Response Team (CERT) - an ICTA subsidiary- has continued with its information security focus across various sectors and provided limited fee based services on cyber security. In September 2013, ICTA was assigned to host the National Certification Authority to set standards to regulate Certification Services Providers (Lanka Clear Private Ltd and Lanka Government Network Certificate Authority). Data Protection Code of Practice is ready for discussion with the ICT industry associations. The Local Language initiative (LIL) funded by the AF under this component has enabled the use of local languages in ICT especially in Tamil language.

In line with creating more awareness about ICTA's development achievements and activities to key policy makers and the general public, ICTA has carried out many awareness activities among its stakeholders. Media activities and event specific communication were carried out nation-wide but with a special focus on the North and Eastern Provinces as AF mainly focused on these areas in order to create awareness about services developed under the project. During the period from December 2012 to end 2013, 24 events, 657 press releases in all there languages, 97 advertisements (e.g. Lanka gate, eDiriya awareness, BMD awareness, eCitizen project etc) 13 publications and 206 media programs were conducted to increase awareness about the services provided by applications developed under the project. Activities carried out by ICTA seem to have been effective as the ICT use in rural areas and among public officials has increased as reflected by the increase in use of Government e-Services by 3.8 million during the AF period.

Component 2: ICT Human Resources Development and Industry Promotion Program: <u>Strengthening Sri Lankan business and SME competitiveness through ICT</u>.

Indicators	Original/Revised Targets	Actual
Trained CIO teams responsible for e-	30	30 (165 organizations)
transformation established within 30% of the		
remaining government agencies		
5% annual improvement in rating of ICT	5	27
policy environment using NRI index		
70% of users are aware and are able to use	70	84
standard based local language computing		

Outputs: The outputs were the following: (i) Creation of 75,107 new ICT jobs; (ii) Training of 5,261 workers on IT in the non-ICT private sector, enhancing their experience applicable to their work; (iii) 30,561 IT/BPO practitioners have been beneficiaries of IT/ITES awareness and training since 2005; (iv) Capacity building via a series of events focused on building international and local business linkages in the ICT sector, strengthening of the ICT industry associations, SME support, and train-the-trainer programs; (v) Particular emphasis was paid to smaller enterprises – 3078 small grants were awarded, in conjunction with national training events, certification

courses, and career fairs. Work in the North and East was scaled up via career fairs, ICT literacy events, industry mentoring programs, and other activities, in anticipation of new initiatives there by the private sector.

Under AF, several activities were added: (i) Development of skills certification program for IT/ITES; (ii) Provision of industry statistics and information on industry needs; (iii) Train the Trainer (ToT) Program in selected certifications; and (iv) Marketing and promotion of the ICT industry.

One of the indicators that had been consistently monitored through surveys during the AF was the number of jobs that were created in ICT and IT enabled services. A target of 10,000 additional jobs was expected to be created during the AF and 12,295 jobs were created in the industry. This augured well for the success of additional financing as the component on improving IT/ITES competitiveness could only be fully implemented if there were enough personnel with skills that the industry required. In addition under AF, 55 Trainers and around 1053 staff in private companies were trained under ITES skilled training program to increase the skill base.

Improving IT/ITES Sector Competitiveness. This aimed at improving locations readiness index for IT/ITES industry. In terms of training, ICTA liaises with the IT/ITES Industry Association (SLASCOM) to determine the skills that were needed and which were expected to make the industry competitive in the global market. In this regard, ICTA provided Agile/Scrum Training; Business Analyst Training and Project Management for private sector mangers and trained the trainers (ToT). Up to now 1053 have been trained under ITES skills certification program while 50 have been trained under training of trainers (ToT) program exceeding the targets. Apart from these, under the Industry Business Promotion Program, 37 companies participated. Based on the feedback provided by the participating companies, these events have resulted in more than 1 million (Aus \$) potential contacts some of which are in an advance stage of negotiation.

Two examples of innovative initiatives were the Green IT initiative, which held an event in March 2011, promoting Sri Lanka as a sustainable sourcing destination, and the Spiral of Innovation Initiative targeting newly-created ICT start-ups, in partnership with 23 international IT organizations including Microsoft, Intel, Oracle. Sri Lanka was also awarded the "Outsourcing Destination of the Year" award by the National Outsourcing Association (NOA), UK in 2013. Sri Lanka was ranked in the top 10 most improved countries for doing business in 2013. Sri Lanka was also ranked among the top 25 global outsourcing destinations by AT Kearney and among the top 30 outsourcing destinations by Gartner.

Component 3: Rural Telecommunication Network (RTN) Program

This component was cancelled. It aimed at opening up internet cable connectivity to all internet service providers, by providing a US\$12.5 million subsidy for the installation of an internet cable infrastructure open to all internet providers. The complex political economy situation in the market presented major implementation issues for awarding a contract for the provision of cable connectivity, though two attempts were made. It appears that little action was taken to obtain the buy-in of other key stakeholders such as the telecom operators in the RTN process. The telecom regulator (TRCSL) was also not consulted at the design phase. However, the government took steps to forge necessary alliances and provide enabling conditions

for the cable construction by spreading and helping manage underlying risks.²⁵ In spite of the delays to the BCI construction, the mere planning and dialogue process for the BCI under the project opened the possibility of equal access to network frequency making it feasible for CDMA (wireless) licenses to be allocated to telecom operators as a direct competition to broadband access. This effectively broke the broadband monopoly by opening it up to competition from another technology – and the results were visible in deeper access nation-wide and in more remote rural areas (from 1.44% population with internet access in 2006 to 11% in March 2012²⁶. (http://www.trc.gov.lk/).

(Components 4): Telecenter Development Program (<u>Access in remote and rural</u> <u>areas)</u>

Indicators	Original/revised Targets	Actual
240 telecenters established in under-	240/70/25	740/85/85
served areas of which 70% will be		
operational and 25% financially		
sustainable		
% of women and youth who are	40/70	41/54
users of telecenters		

This component was implemented satisfactorily and made a significant contribution to mass e-literacy and ICT culture in the rural areas. Telecenters have become breeding grounds for ICT-enabled rural entrepreneurship, and have been incorporated into other government programs for rural and community-driven development. The sample survey on Tele-centers funded under the AF reveals that out of the 629 Tele-centers established in the original project, 65% are financially viable. 70% of the users and 76% of the operators indicated that Tele-centers contributed to improving ICT literacy in the community especially among the youth. Partnerships were established with multinational companies (such as Microsoft to promote ICT usage for migrant workers), Sri Lankan companies (such as MAS Holdings, to train workers of garment factories), NGOs (such as Job Search, Sanasa, Sarvodaya, Telecentre.Org), and aid agencies (IDRC, UNDP).

Sri Lanka's Telecentre (Nenasala) project was initiated to provide affordable ICT services and associated facilities to the rural communities of the country. It is globally accepted that Information and Communication Technologies (ICTs) can play a pivotal role in reducing poverty by creating new sources of income and employment, improving health and education services, reducing inequalities and advancing economic growth. However, most of the people in rural, underserved communities remained isolated due to the lack of financial resources to purchase and maintain their

²⁵ The RTN was initially designed to address a perceived need at the project design stage – which was the lack of affordable ICT access to rural Sri Lankans, where the operators at the time had not rolled out services to these commercially less attractive markets. The market was also characterized by the oligopolistic behavior of a few dominant players. Although the project could not implement the smart subsidy to operators willing to roll out services in these areas as the incumbent operators took legal action against ICTA, the overarching objective of rolling out such rural ICT services was achieved anyway as the operators of their own accord moved to these markets fearing their competition would move before them. Therefore from development objective, one could argue that the RTN program succeeded in meeting its public good goals by motivating operators to rural markets, even though it was not implemented under the project (albeit not by design).

²⁶ Source: Telecommunications Regulatory Commission

own computers and internet and avail themselves to the ICT services. As at end of 2013 ICTA had established 740 Telecentres (including through additional financing) throughout Sri Lanka including the Northern Province. A typical Nenasala Telecentre was provided with few computers, printers, web cams, high speed internet connections, telephones, fax machines and photocopiers and is managed by well trained staff and also provides ICT literacy training.

Three surveys (see Annex 5) were carried out by ICTA to gather feedback on the effectiveness of the program. The findings of the three surveys clearly indicate that the Nenasala project had contributed to high literacy levels in these communities and changes in the use of ICT tools to facilitate their daily activities. It was also evident that the Nenasala users had gained sufficient knowledge, skills and confidence in ICTs, leading them to invest in computers, laptops, internet connectivity, scanners and web cams. This indicates that the community accepted the value and advantage of using ICTs to enhance their livelihoods and started to change their traditional ways of doing things with more convenient and cost-effectives technologies. They changed the ways of communication with emails, Skype and accessing of information, reading newspapers and improving knowledge keeping constant contact with friends, and entertainment through internet. However, facilities like e-health, e-commerce, e-banking and host of other services which were offered online and available at the touch of a button are not yet popular among the rural community.

The awareness programs were also conducted to create awareness among the villages where the Nenasalas were set up in the North and East. ICTA had designed the Nenasala implementation process in the North and East using the knowledge and experience gained during the past to make them more effective. In the initial phases the Nenasalas were subsidized by the project but under the current program none are subsidized for operational expenses. In addition, with previous experience the recently selected operators were mostly community development societies or women development societies who would be able to sustain the Tele-centers for training purposes. A Tele-center Experience Handbook has been translated into local languages and printed and disseminated to the local ICT practitioners and Tele-center operators.²⁷

ICTA has also been able to deliver value added products for Nenasalas through established service providers; (i) introducing IT curriculum with appropriate certification (Intel); (ii) introducing Financial services (HNB Assurance-Collection of insurance premium), (iii) introducing on-line purchasing (wow.lk) and (iv) TOT in English in N & E Nanasalas which were all collaborations with leading private sector organizations.

Capacity building and training at Nenasalas have produced results and standardization has taken place. These training programs were accredited by Tertiary and Vocational Education Commission (TVEC) and certificates were issued jointly by the TVEC and ICTA. However, going forward the continued technical support to the Tele-centers is important.

²⁷ Nenasala: The Sri Lankan Telecentre experience – Basheerhamad Shadrach- February 2012.

The program was internationally recognized including by the World Bank Institute (WBI) innovation fair, FutureGov, and Global Knowledge Partnership. Many lessons have been learned about sustainability and impact of its various institutional models—these lessons are valuable not only for scaling and developmental impact within Sri Lanka, but for the developing world as well.

Value addition to the project:

- Hatton National Bank Assurance PLC (HNBA) has come forward to collaborate with ICTA to implement Premium Collection point at selected Nenasala centres throughout the country. The pilot phase of initiative has commenced at five Nenasala centres and HNBA team organized a workshop for owners of the Nenasala centres in Colombo. 'Dialog Easy Cash', the mobile payment system, introduced to these centres to enable premium collection at the centres. Once Pilot phase is successfully completed HNBA will scale up numbers centres for wider access by its customers.
- Anything.lk, brand changed to Wow.lk, the online store, has signed up with 20 Nenasala centres to promote and sell their online products and services in other areas of Sri Lanka. Anything.lk team organized a workshop for 20 Nenasala centre owners and signed agreement to proceed with the programme. 'Dialog Easy Cash', the mobile payment system, introduced to these centres to enable payments for the purchases. With this a new culture of online purchasing will be introduced to remote parts of Sri Lanka through the Nenasala network.
- "Intel Easy Steps", the digital literacy programme developed by Intel is now introduced to 50 Nenasala centres. ICTA and Intel entered into a MoU to implement the programme. 50 Nenasala centre trainers have been provided with necessary training and recognized as Master Trainers by Intel. At end of the training programme students who underwent training received certificate issued by Intel. Necessary tool kits developed by Intel have been provided to the Nenasala centres to implement the programme successfully. This programme will be scaled up gradually to other Nenasala centres.

In conclusion, it is evident that Telecenters has slowly but surely empowered the rural societies in transforming their ways of doing things in an efficient, convenient and cost effective manner. Recognition for this has also been forthcoming, most recently from the Bill & Melinda Gates Foundation which presented its 2014 Access to Learning Award of US\$1 million to the e-Library Nenasala Program (eLNP), in recognition of its work to provide free access to computers and the Internet to underserved Sri Lankans living in remote and rural areas. There is lot more to gain from this initiative in the future and the decision to expand the project to cover all the GNDs in the country was the correct decision to make so that the benefits of ICT are penetrated to the grass root level.

Indicators	Original/Revised	Actual
7.5 mil citizens and business conducting transactions with the government on-line	7,500,000	11,088,886
# trained under the Skills Certification Program (SCP) and Training of Trainers (ToT)	SCP = 1000 $ToT = 50$	SCP = 1053 ToT = 55

This component was implemented satisfactorily and the targets achieved. Some of the e-services envisaged in the PAD (e-motoring, e-Employment and e-Procurement) were dropped (see under Lessons Learned) and these were replaced with e-services listed below. The outcomes under this component were critical for achieving connectivity and improving ICT literacy throughout the whole government sector and inclusiveness in terms of efficient provision of e-services to all citizens (G2G, G2C and G2B). Lanka Government Network (LGN) works as the digital highway for running mission critical projects such as e-Revenue Licenses, e-State Land Information Management System, e-Population Register etc. LGN also provides digital certificates to all government organizations through the LGN certification authority for securing electronic communications and service provisions. LankaGate is the messaging middleware infrastructure for facilitating all e-Government solutions and equipped with common components such as GovSMS (SMS gateway), Lanka Government Payment Service, Mobile Portal, etc. ICTA has also developed a number of e-services and mobile applications of which some are highly popular: Revenue licences, land title, rate payment, Railway Timetable Application. Most of these have been piloted and will be rolled out in 2014. The outcomes have brought about major improvements in GOSL's efficiency in public service delivery, transparency, effectiveness, and quality of services.

Colombo Municipal System

The on-line rate payment system that was introduced in the Colombo Municipal System has enabled the Colombo city residence to pay Rates, Trade Tax, Tax on Business, Market Rental, House Rental, Shop and Boutique rental and Hawkers rental. This is a 24 hour e-service and has facilitated all tax payers to make their due payments via internet or mobile easy cash and save time without having to stand in lines for a long period of time as was the case prior to the introduction of this system.

Western Province Motor Commissioner's Department

Under the project, the Motor Vehicle Revenue License process in the Western province was automated. In the Western approximately 5000 revenue licenses have to be renewed on daily basis. Before automation, the Department encountered long queues of waiting customers, volumes of manual files, delay in service delivery, unhappy customers and staff members. Further, issue of revenue licenses were confined only to vehicles belongs to that particular DS division. With automation, the issue of a revenue license has been reduced to 90 seconds on average. Manual filing system has been abandoned. A vehicle owner in the western province can obtain the revenue license from any DS office as all 38 DS offices in the province are connected by LGN. All data relating to a particular vehicle is available in the system.

Department of Land Commissioner

Majority of the land area in the island is owned by the state. Land commissioner is responsible for all activities relating to state land. Land commissioner has delegated land identification and preparation of land alienation proposals to respective Land Field Officers of the Provincial Land commissioner attached to DS offices. Previously a citizen had to submit an application for obtaining land from the state to the DS office. Thereafter Field Officer had to visit the location and submit his recommendation to the Divisional secretary who in turn submitted same to the Provincial Land Commissioner and thereafter to National Land commissioner for approval. This manual process took more than 6 months to complete. With the automation, time taken for approval has been reduced to 2 weeks. The applicant can track progress of his application, as he receives an alert message on his mobile phone at each of the approval stages. In addition, Land Title deed extracts can now be obtained in 30 minutes as compared to 2 days prior to this intervention.

Outputs: The outputs are summarized here and detailed below in some cases:

(i) The Re-Engineering Government (Re-Gov) program consisted of government to government (G2G), government to consumers (G2C), and government to business (G2B) services as well as a horizontal infrastructure (platform) program. The core projects under the Re-Engineering Government programs that were established were: Lanka Government Network (LGN), Lanka Gate, e-Pension, e-Population Register, Degitalization of Birth, Marriages and Death certificate, Laksala, e-HRM pilot, National Index Card digitization, and e-Revenue License;

(ii) The Lanka Government Network (LGN) connected 550 central and provincial government organizations to provide effective citizen services through secure electronic communications. During the additional financing phase, the LGN was extended to 74 sites (against a target of 50) in 5 Districts in Northern Province and 2 Districts in Eastern Province areas that could not be covered previously due to the earlier conflict situation and completed the training of 850 staff (against a target of 850) and CIOs of both these two Districts. With the expansion of the LGN network into the conflict affected areas, the connectivity cycle was completed;

(iii) In addition to providing ICT infrastructure, Government staff has been trained to ensure that they are equipped with the necessary skills to use the infrastructure effectively. Government has digitized 18 million records on birth, death and marriage making them easily accessible. Further, 495 government entities have achieved live web presence, hosted at the official Government Portal (www.gov.lk);

(iv) In total, 130 informational and interactive services are being offered, to date. There have been 11,088,886 citizens conducted online transaction with the government by end of November 2013 (*these are number of hits and single person may use various e services*) users per month on average accessing government information online;

(v) *e-Population Registry project:* The solution has been rolled out in five districts (Colombo, Kaluthara, Puttalam, Nuwaraeliya and Kurunegala). e-Population register regulation have been issued for gazzeting to permit the commencement of generating e-certificates;

(vi) *e-Pensions:* the data bases have been created in most DS offices but the work has been slow due to changes of management in the Department of Pensions and vendor conflict;

(vii) *e-DS:* The software development was completed and rolled out to 3 Divisional Secretariats on a pilot basis, completing the project objectives. When the project was conceptualized broadband connectivity was not available to implement a centralized solution. Given advancement in broadband availability nationwide it was considered to adopt a centralized solution to the roll out that would decrease the technical burden on each individual Divisional Secretariats and therefore was considered a much superior option. The wider roll out, scaling up the project pilot took place in 2012.

(viii) The Lanka Gate infrastructure comprising country portal (www.srilanka.lk), internet and mobile payment gateway (Lanka Gov Payment Service), SMS gateway collectively providing an enabling infrastructure for rapid deployment and integration of electronic Services. Other key enablers include a dedicated Government cloud (first of its kind in South Asia), an interoperability framework (standards to secure data sharing), and local language initiative to enable trilingual websites and databases Under the AF several Government portals were consolidated into a single country portal 'www.srilanka.lk' which was re-launched in January 2014; and

(ix) *e-Services:* 25 eServices (against a target of 20) were designed by ICTA of which 12 were launched in January 2014. Some of the eServices are for Colombo Municipal Council (for Property tax payments, Trade tax payments, Business tax payments), and for Employment Trust Fund. The other services are expected to be launched later in 2014;

(x) The e-Revenue License (the first transactional e-service) created the path to accepting electronic payments for government services, was implemented in the Western Province (2010) is now being replicated in the other provinces. The Visa online through ETA (Electronic Travel Authority) also uses the Lanka Gate Payment system.

Lanka Government Network (LGN) Phase 3 and Training: Commissioning of Phase 3 completed the installation of the LGN in the whole country including the conflict affected areas. LGN is a secure Intranet which connects government organizations for electronic communication. The Korean Ex-Im Bank provided parallel financing for Phase 1 and 2 which connected all provinces except for North and part of the Eastern Province. Under the AF, LGN has been extended to 74 sites in 5 districts in Northern Province (Jaffna, Vavuniya, Mannar, Mulathiu and Kilinochchi) and 2 districts in the Eastern Province (Batticaloa and Trincomalee), areas that could not be covered under the previous phases due to the conflict. The installation of hardware and software has been completed. With the connecting of the North and Eastern Provinces under Phase 3, the virtual private network (VPN) connecting the remaining government organizations (7 District Secretariats, 60 Divisional Secretariats and 8 Provincial Ministries) completes linking a total of 550 government organizations in all 25 districts. Deployment of this infrastructure will provide the necessary tools for public sector staff to be more productive and efficient in delivering convenient and effective public services especially to the rural and the conflict affected citizens. As the commissioning of the system in Phase 3 took place during December 2013, the impact in those areas cannot be assessed. However, the public sector staff in the respective locations showed enthusiasm in using the systems for efficient service delivery.

In addition to providing the ICT infrastructure under LGN, general ICT skills training for 600 government officers, technical skills training for 150 System Administrators and advanced internationally recognized ICT training for 100 officials in the North and Eastern Provinces have been completed to ensure that public sector staff are equipped to use the ICT infrastructure in the North and East. These programs have empowered the public sector staff with necessary technical skills needed in maintaining and managing multi-user computer systems and networks provided through LGN Phase 3. General training in ICT certification includes skills in office packages with SLCDL²⁸ examination at the end of the course. Training was delivered through 7 training centers in each of the 7 districts. The Re-Gov training team also implemented the training plan for technical training for another 100 government officers in the North and East in Joomla/PHP/My SQL and A+ in addition to a certification process for government leaders in ICT for development. Furthermore, a post graduate diploma in eGovernment offered by Post Graduate Institute of Management (PIM) was also supported by eSri Lanka. In total, the ICTA has been able to complete the training of 850 staff in the North and Eastern Provinces as targeted under AF.

In addition, ICTA is providing FOSS based systems (Free and Open Source System) under LGN Phase 3, a virus free system which would help in reducing payment of license fees in the future. In the LGN Phase 3, all the work stations have been provided with FOSS based systems. In addition, the Birth, Marriage and Death (BMD) system is used extensively in the districts where the service delivery time has been brought down to 5 minutes due to easy retrieval of documents. The average visitors per day for this service were reported to range from 50-100 and the visits have been minimized to one visit. In some of the districts already the birth certificates can be

²⁸ SLCDL – Sri Lanka computer Driving License

accessed from any DS office in the district and eventually this system will enable citizens to obtain their birth certificate from any DS office in the country.

e-Services. As part of the Lanka Gate initiative ICTA has developed many electronic services (eServices) which are offered to clients through the internet, SMS and mobile applications. It is expected that these multiple online service options would provide a more effective, efficient and citizen friendly mechanism for delivering public services. In total there are approximately 48 eServices offered by 22 government organizations. Out of those, to-date ICTA has launched approx. 33 eServices offered by 18 government organizations. During AF 25 eServices were developed of which 12 completed eServices offered by 6 Organizations are awaiting a confirmation for the launch by the respective government organizations. It is expected that these services will be launched in December 2013 or January 2014. These new eServices will further increase efficiency in service delivery to citizens (G2C). A survey was carried out to evaluate the impact of this program. The survey indicated that awareness of e-services was low and so was the usage. However, there was high satisfaction with regard to the efficiency and effectiveness of the government services provided. Further there was a reduction in time spent for obtaining public services by 29% and increase in the level of satisfaction by 17% compared with the results of the survey carried out in 2010. The findings are summaries in Annex 5.

Some of the main applications developed under the original project like e-Revenue License (e-RL), e-Pensions, e-Civil Registry were to be further enhanced and rolled out during AF. The e-Revenue License rollout is complete in Western Province and pilots have commenced in the Southern and Central Provinces. Western Province accounts for more than 50% of motor vehicle registration in the country. The Central and Southern Province rollouts have been initiated and the training is on-going. In case of the eCivil Registry, the roll out has been done in 5 districts (Colombo, Kalutara, Puttalam, Nuwara Eliya, and Kurunegala) and is issuing eCertificates. Already the exiting Birth, Marriage and Death (BMB) Certificates are available in scanned form which can be retrieved and issued to the public without delay in all the districts visited expect recently set up offices in the Eastern Province (e.g. Seru Nuwara and Nedunkerny DS divisions). This is currently been implemented within districts. E-Population Register Regulations have been issued for gazetting to permit the commencement of the generation of e-Certificate. The Mission during the field visit observed that the scanned versions are available only up to 2011 in most places visited and in some places only up to 2009. Under the e-Pensions program the data bases have been created in most DS offices, but the work has been slow due to changes of management in the Department of Pensions and vendor conflict. ICTA contracted consultants to carry out a survey on impact of e-Government services in November 2013 under AF funding. According to the provisional data available, majority (84%) surveyed have indicated they are able to obtain services "successfully'. However, only 45% of the surveyed were aware of the Government Country Portal of that only 13.5% had used some form of e-Services.²⁹

²⁹ The most advanced country data provided in the UN eGovernment Survey 2012. (e.g. Average use of country portals in 27 EU countries – 32%). E Government Survey- Draft Final Evaluation – November/December 2013.

Lanka Gate Enhancement. Lanka Gate of Re-Gov program was further enhanced to cater for the changing demands and emerging technological advancements taking place. This includes improving Lanka Gate security framework, information and service classification, leveraging on the mobile initiatives to enable citizens make use of mobile as a payment mechanism and as a service delivery channel when obtaining government services. 'Lanka Gate' is a Service Oriented Architecture (SOA) based messaging infrastructure, which is envisioned to be the gateway for electronic information and electronic delivery in Sri Lanka. It was envisioned by the e-Sri Lanka initiative, and also stated in the e-Government Policy Document, that practically all the electronic services (e-Services) and electronic information in Sri Lanka will be delivered via Lanka Gate which was launched in December 2009.

Country Portal: Country Portal www.srilanka.lk serves as a primary interface that connects users to the e-Services provided within the Lanka Gate. Therefore, the Country Portal is a fundamental access point for citizens, non-citizens, businesses, agents and government employees to various government organizations and businesses in Sri Lanka and abroad. Since its launch in 2009, there was more than 27,000 user registrations. With the feedback received from various stakeholders ICTA had to revamp the Country portal to take a different form and be aligned with modern web applications. Funded under the AF, the revamped country portal consolidated the existing Country Portal (www.srilanka.lk) by integrating the information and services provided by other service portals such as www.gov.lk and www.gic.gov.lk into a single Portal, which will function as the main window for offering government information and services. ICTA is in final stages of accepting this new version and intends to formally launch it during early, 2014.

Lanka Government Payment Service (LGPS): LGPS is a core component of Lanka Gate which offers multiple online payment mechanisms via credit/debit cards and mobile payments, enables government organizations to offer paying services to citizens. This was possible due to the amendments to the Financial Regulations (FR 447/2010) carried by the Ministry of Finance and Planning, which was facilitated by ICTA, as one of the key regulatory reforms of the Lanka Gate initiative, to enable government organizations to offer paying services to citizens. This allows multiple online payment mechanisms i.e (i) Credit/debit cards and (ii) mobile payments. ICTA offers LGPS to all government organizations intending to develop paying services offered to their clients. **Mobile Portal:** In addition to facilitating mobile payments, ICTA has offered Government SMS, Government USSD³⁰ and Mobile Apps as part of the mobile based service portfolio.

Lanka Government Community Cloud (LGC) which envisioned the infrastructure as a service platform for Government going forward will host the Lanka Gate middleware infrastructure, eServices and the above mentioned new systems. ICTA has upgraded selected core applications (i.e. Entry Service Bus and Governance Registry) of Lanka Gate middleware to its latest stable versions and developed frameworks for information and service classification. The "Cloud" allows resource pooling, elasticity and scalability, a pay-as-you-use model and minimizes ICT in-house skills requirements. Servers will be hosted by the 'Cloud' and reduces the cost of electricity,

³⁰ USSD-Unstructured Supplementary Service Data (GSM Technology)

UPS, AC and allows automatic scalability, ensures high reliability with no-down time. The LGC currently hosts Lanka Gate, e-Revenue License, Sahana Disaster Management System, e-Local Government, e-Samurdhi and Location Code and Village list. It should be noted that this knowledge may not be available to the Government agencies and they may incur unnecessary costs in terms of purchasing servers etc. The ICTA team needs to share this information and carry out extensive awareness programs with the key government agencies and even with the Department of External Resources, who negotiate Government funding projects to avoid the cost of introducing stand-alone automated systems.

Component 6: e-Society Program

Indicators	Original/Revised Targets	Actual
% in number of replications using applications developed under e- Society Grants	20	24

This component was implemented satisfactorily and the targets achieved. Outcomes of the component was to promote the innovative use of ICT to meet the economic and social needs of the most vulnerable groups in Sri Lanka and to empower civil society with affordable access to information, communication, and relevant local content. It addressed a variety of thematic priorities including education, health, agriculture, and small business development as well as cultural heritage. This was achieved by increasing awareness among rural and urban poor of how ICT could benefit their lives and to improve capacity of communities to implement projects and utilize ICT to meet local needs. It included such diverse ICT applications as electronic patient record systems in rural hospitals, digital content for rural libraries, and English self-learning software for rural school leavers. In addition it increased economic opportunity and equity through wider use of ICT in agriculture, tourism, health, and education, including the empowerment of women and youth. E-Society programs have been able to develop value added products through the Tele-centers creating them as delivery points for services of some corporate businesses such John Keells (Tallying quotations with actual prices), Intel (IT education programs), Dialog, HNB Assurance (Collection insurance premium) etc. The e-Society component attracted international recognition and awards for promoting grassroots community-implemented innovation.

Outputs: e-Society program was to support private and rural community based organizations to create ICT applications to improve their livelihood, some of which have the potential for replication. Complementing the Telecenter program, this component combined a transparent grant program with a local language/localized content development and deployment program. The program adopted a multi-channel assistance: community assistance to community-based organizations (CBOs), partnership assistance to organizations with higher capacity to execute innovative and replicable projects, and replication assistance to apply successful innovations and contents to new geographies and communities. E-Society Projects were recognized at the Manthan Award (South Asia) and the m-Billionth South Asia Mobile Awards. Five of the 8 projects to be nominated to the World Summit Awards 2011 were initiated through the e-Society component.

E-Society promoted the use of ICT to meet the economic and social needs of the most vulnerable groups in Sri Lanka through community grants (CAP) and partnership grants (PAP), awarded on a competitive basis, and scaled up if successful. Twenty of the more promising CAP projects with potential for significant impact on society were

supported further in ensuring continuity and sustainability through the CAP Project Sustainability Grants. These grants have led to the development of diverse and rich innovative software content in a number of high-impact areas. The following initiatives were launched:

- 178 innovative ICT inventions were selected for funding (of which 23 were in the North and East), and 41 have been judged successful enough for further replication and scale up, of which 34 have been taken up by other donors;
- Innovative software was developed, which included animated CDs for estate women and children, covering topics such as vaccination, first aid, home gardening, home safety, waste disposal, nutrition for pregnant women; the Sinhala Wikipedia, a system for documenting violence against women in Jaffna District (North province); and a program linking a district hospital to a base hospital facilitating access to specialist services;
- Two successful education projects were implemented in Shilpa Sayura and Vidunena, which provide secondary school curriculum content electronically. Vidunena was ratified by the Ministry of Education and is now being deployed through the secondary school network in the country;
- A high-impact health projects was launched (Happy Life), providing reproductive health information to communities via multiple channels (online, voice, mobile), and enjoying over 7,000 hits per month. The project was considered for replication in Afghanistan by the International Plan Parenthood Federation;
- Several products were developed to support modern farming and livestock management Goviya, NavaGoviya, and e-Dairy provided market price information to farmers, support to agricultural extension services, and provide just in time advice to farmers for increasing agricultural outputs;
- The Impaired Aid Project, which received the World Summit Award 2009, offered a comprehensive suite of applications to support learning and communications for those with visual and hearing impairments. This suite of applications is now being deployed across Special Schools in the country and is implemented by the private sector;
- The Village BPO project, On-Time, is servicing a blue chip company in Colombo while providing employment opportunities to the village youth. The success of this project led to its replication in the tsunami affected village of Seenigama in the South;Uduwil in Jaffna and Batticalo;
- A project aimed at improving the command of English amongst the rural population, especially young school-leavers, was initiated through the e-Society component for developing a self-learning English Language;
- Software Hospital Health Information Management System (HHIMS) is opensource medical database software designed for use in Sri Lanka hospitals. It stores clinical details of patients treated and is designed for use by clinical staff - details are recorded on the system as they examine the patient. The software will thus significantly reduce the need for maintaining paper based records and enable an improved and efficient service to the patient. So far the system was successfully implemented in 12 hospitals;
- Since 2009 digital innovation and creativity was recognized through e-Swabhimani, a National Best Content Award. The latest e-Swabhimani event conducted in 2013 for the fourth consecutive years. There were 670 highly quality submissions from innovative software developers in different areas and 85 winners were recognized at a high profile event; The project provided local

language applications to enable all ethnic groups to have equal access to e-Services. Under the AF the focus had been more on Tamil language enabled services (e.g English learning for Tamil language users, Tamil language digitization project and web based A-Level science learning system for Tamil students). In addition some pilots were developed which could be replicated in other sectors such as Irrigation Water Management in Maduruoya and Hospital Health Information Management in one of the Northern Province hospitals;

• e-Society program initiated the implementation of several new private sector activities such as setting up of a rural BPO in the Eastern Province for training conflict affected children and work is to be outsourced from UPS office in Colombo (e.g. Keells). Hatton National Bank Assurance PLC has implemented insurance premium collection at Nenasala centers and HNB intends to scale up this activity. Wow.lk; the Online Store has signed up with 20 Nenasalas promote and sell their products. "Intel Easy Steps", the digital literacy program developed by Intel has now been introduced to 50 Nenasala centers and expected to be scaled up to other Nenasala centers.

According to the recent e-Society Evaluation Report funded by AF, majority of the beneficiaries (93%) are aware of the services provided by AF projects and around 87% are satisfied with the benefits of the projects. Seventy seven percent of the beneficiaries of the AF funded e-Society projects reported they were able to acquire ICT literacy skills; 55% have improved their English literacy skills; 36% of the beneficiaries indicated that they could save time, and 68% indicated that there was women and youth empowerment. However, the impact on the sectors was much less (13% in Health information; 13% in Agriculture extension information, 20% gained knowledge on production methods, 10% gained support for peace and environmental management).

Annex 3. Economic and Financial Analysis

The impact of ICT on competitiveness and its potential for accelerating growth in developing countries has being widely recognized. While quantitative estimates vary, there is also substantial evidence that the divergence in economic growth across the OECD is attributed in part to differences in the application of information technology in productive sectors. The evidence shows that it is both the growth of the ICT sector itself and process improvements associated with deploying ICT solutions that create productivity gains. By lowering transactions costs and enabling greater information sharing, ICT promotes innovation. The impact of ICTs as development tools depends on a complex set of other enabling factors that require priority attention, such as the proper policy and regulatory environments, openness to global markets, and a commitment to education and capacity building. The project has done much to contribute to achieving these factors.

The project has:

- Enabled effective e-business and e-government legal frameworks that will substantially increase levels of trust and confidence necessary to implement online transaction between various economic actors in the public and private sectors;
- It has facilitated development of necessary institutions, standards, and technology architecture that will catalyze and streamline transition to the knowledge-based economy and assure interoperability between various information systems;
- Built a broad awareness of the critical role of ICTs in government, business, and society, which will empower the citizens of Sri Lanka to fully leverage the new digital opportunities to improve overall personal effectiveness and competitiveness in the labor market, their professional capacity, and income status;
- Improved the country brand and image of Sri Lanka's ICT capabilities, thus helping to attract significant foreign investment and contribute to an increase in employment (over 75,000 jobs) and exports (around US\$720 million) and overall economic growth via software and ICT-enabled business process outsourcing (top 30 outsourcing destinations in the World);
- Significant benefits have been achieved by enhancing the efficiency and quality of government services delivered to citizens and businesses, improving the internal efficiency of government, and improving the transparency and accountability of governmental institutions (LGN, Lanka Gate, e-Pension, e-Population Register, e-Revenue Licenses, etc to name a few);
- Establishment of telecenters was an economical means of expanding access to telecommunications services through shared facilities. They were of special significance to low-income consumers and small enterprises that cannot afford full time personal connections. The telecenters have enabled the provision of government and private sector services at citizens and SMEs; and
- Increased economic opportunity and equity through wide use of ICT in agriculture, tourism, health, and education; empowering women and youth; supporting peace and environmental management; and mobilizing indigenous knowledge.
- The efficiency in the project was based on increased access to information by citizens; increased public sector cost efficiency and transparency; improvement in the quality of governmental services; reduction in transaction costs and time

spent (for government, businesses, and citizens); increased contribution to GDP by the private sector in general and the IT industry in particular. For instance, land title deed extracts now take just 30 minutes, instead of 2 days; and land identification and alienation now takes two weeks, instead of six months (see also Annex 2).

- The establishment of the government-wide intranet has enabled government agencies to access and share each other's information and data seamlessly, substantially reducing government processing and transaction times and costs.
- e-Procurement has provide access to tender issuance, monitoring, evaluation, and all procurement-related transactions, and have significant economic benefits, including transparency, lower prices resulting from increased competition, increased participation by SMEs, diffusion of e-business practices, and lower transaction costs and increased speed of processing tenders.
- The e-pension processing and delivery system has benefited a large number of pensioners and their dependents.
- Lastly, while the project took longer than originally anticipated, this was in part on account of the initial design under-estimating the implementation period required. Overall the staffing and costs levels stand up well to comparisons. At project end, ICTA had around 80 staff (country population 21 million). This compares favorably to the under implementation similar Bank ICT projects in both Rwanda (900-1,000 staff; for a country with a population of 11 million) and Moldova (29 staff; country population of 3.5 million).³¹

³¹ While comparisons with other agencies, such as in Singapore are not directly feasible, it is worth noting that with respect to staffing ICTA has only a fraction of the staff of the Singaporean agency.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members	
Names	Unit
Nagy Hana	ISGVP
Eduardo Talero	Consultant
Ritin Singh	CITPO
Sandra Sargent	ISGIF
Francisco Proenza	FOA
Deepal Fernando	SARPS
Julitta Resiah	SARFM
Steven Holtzman	SASES
Sumith Pilapitya	SASES
Vikram Raghavan	LEGMS
Oleg Petrov	ISGIF
Gyanchander Gongireddy	ISG
Shashank Ojha	ISG
Simon Bell	MNSFP
John Daly	AFTH1-HIS
Deepal Fernando	ECS02
Elena Gagieva-Petrova	MNSHD
Roger W Harris	SASFP
Albert Badathurugae	SACSL
Annemarie Mtonyi Mecca	HRDGM
Larry Meek	BPSBP
Shashank Ojha	TWICT
Ismail Radwan	ECCU5
Vikram Raghavan	LEGOP
Sandra Sargent	ISGIF
Ritin Singh	CITPO
Eduardo Talero	Consultant
Charles Watt	FIEID
Miriam Witana	EASR1
Asya Akhlaque	AFTFE
Cynthia Angeles	
Khalid Bin Anjum	SARPS
Kareem Aziz	CTTAE
Henry Bagazonzya	SASFP
Anna Bos	
Kashmira Daruwalla	ECS02
Darshani De Silva	SASDI
William John Edwards	TWICT
Marjorie Penesa Espiritu	MNSF1
Shakuntala Gunaratne	AFTDE
Caroline Gunasekera	SASEP

Bharatha Manju	CACED
Haththotuwa	SASFP
Ina Hoxha	SASFP
Sriyani Hulugalle	SASFP
Syed Abul Kamal Md Abdul	AFCTZ
Michael Jenson	TWICT
L Lohitha Karunasekera	SASFP
Emebet Kassa	SASPM
Friedrich Konigshofer	SASFP
Nishana Dinali Kuruppu	SASFP
Anat Lewin	TWICT
Tatiana Nenova	BPSVP
Cecile T Niang	SASFP
Tenzin D Norbhu	TWICT
Seda Pahlavooni	TWICT
Oleg V Petrov	TWICT
Sumith Pilapitiya	SASDI
Julian Pogor	DECDG
Francisco Proenza	LCSAR
Boyito A Quiroz	MIGOP
Radha Raju	CTRLN
Aza Rashid	SASFP
Mohamed G Razaak	SASDS
Indika Samarakoon	SASDU
Minako Sato	SASFP
David Satola	ICOIO
Joseph D M Siagian	SECPO
Randeep Sudan	TWICT
Anushka Sheran Wijesinha	SASPM
Miriam Witana	EASRI
Masatake Yamamichi	TWICT

(b) Staff Time and Cost

	Staff Time and Cost (Bank Budget Only)		
Stage of Project Cycle	No. of staff weeks	USD Thousands (including travel and consultant costs)	
Lending	22.78	92	
Supervision	218.05	67.28	
Total:	240.83	159.29	

Includes budget for the additional financing

Annex 5. Beneficiary Survey Results

The findings of the **Telecenter surveys** are summarized below:

- The majority of 76% of Nenasala operators were young (below 40 years of age) and 61% had high level of IT knowledge and 77% had also undergone initial training by ICTA;
- Almost 85% of the operators confirmed that there were no affordable ICT services available in the area before the establishment of Nenasalas;
- Of the total centres surveyed only 50.6% had telephones and 37.2% had fax machines. Also photocopying facility was found in only 52.4% of the surveyed Nenasalas;
- Almost 87% of the Nenasalas were found to be involved in conducting computer training classes for students and others. The most popular training module was the office package;
- Nenasala centres had contributed immensely to improve the ICT literacy among the community especially among the youth. This was confirmed by 70% of the surveyed users and 76% of the operators.
- It was found that 98% of the Nenasala users were computer literate and 54% had home computers as well. This showed that higher literacy leads to higher usage of Nenasala as they want to learn more in order to get the most out of their home facilities;
- The availability of internet was found to be around 20% among the user respondents. The availability of convenient and economical 3G mobile broad brand connections should increase the connectivity in the near future;
- It was also noted that almost 82% of the users surveyed were regular Nenasala users who at least visit the centre once a week;
- Around 98% of the users had expressed their satisfaction with the services provided by Nenasala, although it is not all of the centres that offer all communication and office facilities to users;
- Nenasala centres had also brought about positive behavioral changes in the community. For example 76% of the users had acknowledged that they use email and 'Skype' facilities to communicate with their families and friends abroad or to do business effectively and speedily;
- Internet facilities at the centres had contributed to improve the knowledge and skills of the users. 30% of the users had also mentioned that they use internet for entertainment purposes as well. The use of social networks to 'keep in touch' with their friends and share information of common interest was reported by 27% of the users;
- The survey found that 15% of the users accessed online e-overnment services through Nenasala internet facilities. Although this figure may be small, it shows that people are changing their attitudes and are trying to obtain these services in a convenient manner;
- It was also observed that 34% of the users had reported to be using internet to access latest news, information and read e-magazines from Nenasala;
- The use of Nenasala internet facilities for accessing e-Commerce and ebanking and other private sector facilities were only 5% and 2% respectively. Also only 4% had reported that they had used internet to adopt new technologies to improve their businesses;

- Around 46% of the users had reported that they prepare their letters and other documents (typesetting) using Nenasala computers. Further, 23% had mentioned that they prepare university assignments using these facilities;
- The survey also found that 36% of the users had purchased computers/laptops and 14% had also obtained internet connections after associating with Nenasala services.;
- A percentage of 14 users had indicated that they were able to increase their income by using different Nenasala services while 3% had obtained employment as a result of training they received at the centre;
- Also 84% of the users had assessed and valued the Nenasalas' contribution towards improving their ICT literacy as 'very high' or 'high';
- The community awareness (in the catchment area-5 kilometer radius) of the existence of Nenasala in their village was 76% but only 58% of those who were aware had actually used Nenasala facilities. The awareness is less as it goes further and further from the centre;
- As expressed by 77% of the operators, their centres generate sufficient revenue to cover the operating cost. Some centres are funded by owning institutions or provided rent free office space, free electricity and sometimes staff salaries are paid by them. In fact most of these centres are providing services at highly subsidized prices or even free of charge to the users. Services are also offered free to needy or members of the institution as a social service;
- Around 83% of the Nenasalas surveyed had conducted various awareness campaigns to popularize their services among the community. Most of them had targeted students who have completed their public exams and are awaiting results for training classes;
- It was also found that there were some catalytic effects arising from the Nenasala project. One important effect is the conviction in the community, especially among the parents is that learning ICT is essential to their children's future and making every effort to provide them with training and equipment. It was also revealed that after the establishment of Nenasala more and more students are enrolling to take ICT as a subject for their public exams;
- Another visible catalytic effect is the establishment of other Telecentres in the neighbourhood is to provide similar services to the public;
- Lack of internet connections, fax machines, telephones and photocopiers were real impediments for smooth functioning of some Nenasalas as these equipments are essential to provide an efficient basic communication and office services;
- Some Nenasalas were faced with the difficulty of retaining their trained staff without a proper career path and salary structure. Some centres were found temporarily closed down due to this problem.

Based on the surveys carried out the following recommendations were made to improve the performance of the program for future endeavours:

- It is extremely beneficial if all the required basic communication and office services are made available at all Nenasalas so that they can be used as one-stop communication centres to the community. Provision of other related services such as duplicating and binding facilities should also be encouraged;
- Apart from providing basic computer training, Nenasalas should also concentrate on providing other training where ever possible so that the required

manpower could be provided to the expanding BPO sector. This may help to develop local businesses in the various fields.;

- Nenasalas need to attract more and more customers to ensure their sustenance and expansion in the long run. This needs the creating of awareness not only in the local environment but also island wide. In this regard ICTA can carry out an effective media campaign along with local Nenasalas promoting their own centres within the catchment area;
- Some centres had been already shifted from original locations to more central places to attract more customers. If such relocations are conducive for their long term sustenance, such moves should be encouraged;
- It was also found that most Nenasala are expecting state intervention to provide continuous support to buy required equipment and other facilities. This misconception needs to be corrected so that they develop their own strategies to achieve self-sustainability;
- Another thorny issue is the difficulty of retaining trained staff due to financial reasons. They also do not see a long term career at these centres and always try to find better prospects elsewhere. Once the well trained staff leaves the untrained new comers find it difficult to offer the same quality of service to the users. This can seriously affect the user numbers and sustainability. A solution needs to be found to retain these trained staff.

ICTA also carried out an e-Government survey. Some key findings of were:

- Majority of visitors were able to obtain a "successful" service (84%) whilst 11% and 5% of the visitors were "partly successful" or "not successful", respectively.
- 99% visitors were positively satisfied with the overall government services obtained, whilst 1% visitors were negatively satisfied with the government services obtained.
- the average number of visits made by the visitors to obtain a public services was 1.2 visits.
- The average total cost to obtain a service was Rs. 864, including service fee, travelling and food.
- 45% of the citizens were aware of the Sri Lanka government Country Portal; whist 55% citizens were not aware.
- Of the 329 citizens in the sample, only 44 (13.5%), had used some form of eservice provided by the government organization.
- Of the respondents who were aware of the websites 95% reported a positive perception of the websites they had visited.
- 99% of the Citizens' were satisfied with the efficiency of the government services.

Some key findings of the web content analysis;

- the layout and appearance of the surveyed websites were at a higher level in terms of their usability aspects, in most of them
- Navigation structure and capability of the websites surveyed during this study was at remarkably good levels except for few isolated cases.
- all the websites included in this survey performed poorly in terms of their content, where either the full content was not available under the given links,

or the content included was not relevant to the context of the hyperlink or the website

• Lower page performance due to the inappropriate formatting or large size of the downloadable file.

Another finding was that usage of the e-government services was low. This resonates with the UN e-Government Survey 2012 report which stated that the level of e-government usage was generally low, even in the most advanced countries. In EU 27 countries, the average usage rate is 32 percent, and in OECD countries, the average usage rate in 2010 was only around 40 per cent.

The survey indicated that awareness of e-services was low and so was the usage. However, there was high satisfaction with regard to the efficiency and effectiveness of the government services provided. Further there was a reduction in time spent for obtaining public services by 29% and increase in the level of satisfaction by 17% compared with the results of the survey carried out in 2010.

Government Organizations websites have highly usable structure, information organization and technical features supporting usability by the general public irrespective of the ICT literacy, mode of access and language barriers. However, regular updates to contents remain at a poor level with significant number of websites in the sample not being update for long periods.

Recommendations include the following;

- The existing Computer Literacy Rate of 56% should be increased by revisiting the 'Nenasala" program; encourage computer education facilities through incentives; make computer education compulsory in the school education curricular.
- North and East provinces should be given special attention in computer literacy and the use of ICT to update the systems.
- The government organizations web sites should be up dated regularly according to the guideline of the e-Policy.
- E-Services should have a well-planned awareness and propaganda campaign to inform the citizen about the e-services and the benefits.
- To set up a centralized mechanism to monitor all government websites with information updates and to take necessary remedial actions.

Annex 6. Stakeholder Workshop Report and Results

N/A

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

Borrower's Evaluation Report (Draft)

- 1. Introduction
- 2. Project Outcome/Achievements
- 3. Project Outputs/Deliverables
- 4. Factors Affecting Implementation
- 5. Transition Arrangements for sustaining project's achievements after the project closure
- 6. Risks for Sustainability
- 7. Bank Performance
- 8. Borrower's Performance
- 9. Lessons Learned

Introduction

Original project development objective:

The aim is promoting the use of information and communication technology to: (i) generate growth, employment and equity; (ii) provide affordable access to means of information and communication, including access by citizens and businesses to public information and services online; and (iii) encourage and enhance the competitiveness of industries, small and medium enterprises and other private sector entities.

The objective would be achieved by (i) establishing an effective, citizen-centered and business-friendly government; (ii) empowering the rural poor, disadvantaged groups, women, and youth through increased and affordable access to information and communication tools; (iii) developing leadership and skills in ICT; and (iv) creating employment in the ICT industry and ICT-enabled services, and enhancing the competitiveness of user industries and services

The parent project comprises the following component programs:

- 1. ICT Policy, Leadership and Institutional Development Program (e-Leadership);
- 2. ICT Human Resource Development and Industry Promotion Program (ICBP);
- 3. Backbone Communications Infrastructure (BCI) under cancellation;
- 4. Telecenter Development Program (Telecenters);
- 5. Re-engineering Government Program (Re-Gov);
- 6. E-Society Program (E-Society).

The Parent Project and extension

The parent project has operated for 6.25 years, and is extended by 2 years up to Dec 31, 2011. The project has undergone two restructurings, in 2008 and 2011, both having the effect of reallocating funding away from the BCI component which was lagging, and scaling up the remaining components which were operating successfully.

All PDOs of the parent project have been over-achieved (by 700% to 1700%). All intermediate targets are over-achieved as well

Additional Financing

The project was given further extension by two years under additional funding up to end of 2013. The project development objective remains unchanged in the AF. The aim is to provide additional support to scale up activities that will enhance the project's impact and development effectiveness through (i) consolidating existing high impact activities including e-Government applications, common platforms and service delivery points ; (ii) bridging infrastructure, training, establishing technical standards, regulations and legislative gaps in order to achieve the above ; (iii) completing and enhancing minimum enabling environment for the above to function ; and (iv) using the available services effectively.

The AF comprises the following component programs:

- Component 1:Re-engineering Government (US\$ 3.75million): This will focus on 3 main activity areas, namely: Lanka Government Network (LGN) Phase 3 & Training, Lanka Gate and Eservices which will scale up, rollout and improve access to citizens throughout the country to government e-services resulting in efficiency improvements in service delivery.
- Component 2: Integrated Communication (US\$ 0.96 million): Component 3: Common Enabling Environment (US\$1.59 million): This is intended to create awareness at all these levels about on line services offered by the government. The strategy and its implementation will also look in to improving coordination between government agencies, development partners and service providers with the purpose

of improving efficiency and access to ICT enabled services. The other function is to effectively communicate the need for adherence to standards when developing ICT applications.

- Component 4: Telecenters & e-Society (US\$ 2.39 million): The component will support the establishment of extra 40 telecentres in underserved areas. It will also support the rolling out of eservices through these centres and the development of 1-2 high impact services in collaboration with the private sector.
- Component 5: Improving Information Technology and Information Technology Enabled Services (IT/ITES): Sector Competitiveness (US\$1.31 million): Improving Information Technology and Information Technology Enabled Services (IT/ITES) Sector Competitiveness (US\$1.31 million): To improve the Location Readiness Index (LRI) for IT/ITES industry in terms of Knowledge Processing and IT services. They include: Industry statistics and information; capacity development; train the trainer programs in selected certifications, marketing and promotions.

Out of the seven outcome level indicators five indicators have already achieved project end targets. Except for the *Business usage subscale* of the *NRI* sub index and female beneficiaries. The rest of the indicators have exceeded the project end targets. Ten out of 14 intermediate indicators have been over achieved **Project implementation**

All PDOs of the parent project have been over-achieved (by 700% to 1700%). All intermediate targets are overachieved as well. The project is rated Satisfactory. Financial management, procurement, and management functions are satisfactory. Project Development Objectives (PDO). Out of the seven PDO indicators of AF, six have been fully achieved.

Restructuring in 2011. The BCI component that aimed at constructing a national backbone cable to provide internet connectivity has been cancelled in an official project restructuring process. This component has been stalled and re-initiated twice, due to the complex political economy of the internet market, The restructuring cancels SDR 6,498,271.17 of the project funding, and reallocates a further SDR 1,613,728.83 from the BCI component to scale up the remaining components.

Key programme specific outcomes

Programme	Programme Objective	Key outcomes
ICT Policy, Leadership and Institutional Development Program	(a) create a proactive institutional, policy, and regulatory environment that is supportive of ICT enabled reform and development;	Improved Policy environment measured through NRI : The overall ICT development status of Sri Lanka, which was earlier in the 72% ranking (in 2005) in the Networked Readiness Index (NRI) has now improved to the 48% ranking in 2013. The World Economic Forum reported in the 2011 that Sri
	(b) develop the ICT leadership and capacity among senior government officials and other key stakeholders necessary to implement reforms; and	Lanka was "amongst the ten most dynamic countries that have progressed the most in the NRI".
	(c) communicate these initiatives and policies to the wider stakeholder audience and facilitate partnerships around e-Sri Lanka.	Enabling legal environment- Improved usage of electronic laws: the project supported to draft key ICT related Laws, including the Electronic Transactions Act (2006), the Computer Crimes Act (2007), data protection
	This component aimed at enhancing the existing legal framework to support private sector growth and promote competition and create a level playing field, support cyber security and promote use of local languages in ICT for inclusive growth	legislations etc several capacity building and awareness programmes were conducted by the project to promote the laws among the legal community; mainly for judges and lawyers
	use of focur nurgauges in fer for menusive growur	Necessary financial regulations: ICTA took the lead role with Finance Ministry to prepare the <u>Financial Regulations</u> (FR 447/2010), which has enabled the use of Credit Cards and electronic payment methods (including mobile payments) to pay for government services.
		Enabling Policy environment- Improved usage of e Government Policy across the government: The "e-Government Policy", was developed through a combined multi-stakeholder consultation process, and adopted by the Cabinet of Ministers.
		Mitigate and handle cyber threats and incidents cyber security and cybercrime through establishment of Sri Lanka CERT (Computer Emergency Readiness Team). The total incidents reported was increased by 25% in 2012 compared with year 2011. Sri Lanka CERT presently handles about Facebook and webmail account hijacking incidents 70% relate to creation of fake accounts, 26% are complaints relating to hacked accounts, whilst around 7% harassment complaints. They also handle technical forensic investigations and incidents relating to phishing attacks on banking and finance industry.
		Team). The total incidents reported was increased by 25% in 2012 compared with year 2011. Sri Lanka CERT presently handles about Facebook and webmail account hijacking incidents 70% relate to creation of fake accounts, 26% are complaints relating to hacked accounts, whilst around 7% harassment complaints. They also handle technical forensic investigations and incidents relating to phishing attacks on banking and finance industry.

		ICTA/eSri Lanka as the agency for improving ICT literacy, computer penetration and ICT usage in the country. The total readership of newsletters are estimated to be around 2.6 million and listeners of radio programs total up to 5.0 million and the total viewers of ICT related TV programs are around 10.0 million. Designating ICTA as the National Certification Authority for the purpose of the Electronics Transactions Act. formally issued the Electronic Transaction (e-Population Register) Regulation No. 1 of 2013 to be published in the Government Gazette to give legal effect to eGov activities Local language initiative to enable trilingual websites and databases. Over 84% of users are aware of and over 72% able to use standard based local language computing
ICT Human Resources Development and Industry Promotion Program	 (a) to upgrade Sri Lanka's ICT capabilities, competitiveness, and revenues by improving the quality of its managers, professionals, and technology; (b) to develop a multilayered and multiskilled ICT workforce and to increase the employability of school drop-outs; and (c) to improve the effectiveness of local industry, especially small and medium enterprises (SMEs), through the use of ICT. 	 Sri Lanka was awarded the prestigious "outsourcing destination of the Year" award by the National Outsourcing Association (NOA), UK in 2013. Sri Lanka was ranked in the top 10 most improved countries for doing business in 2013 Sri Lanka was also ranked among the top 25 global outsourcing destinations by AT Kearney and among the top 30 outsourcing destinations by Gartner.
	AF: To improve the Location Readiness Index (LRI) for IT/ITES industry in terms of Knowledge Processing and IT services. They include: Industry statistics and information; capacity development; train the trainer programs in selected certifications, marketing and promotions	As of 2013, export revenues from IT-BPO services are estimated at over US\$ 500 m, growing at approximately 22% per annum. When combined with the domestic market, total revenues are close to US\$ One Billion. Direct IT employment exceeded 75,000 high-paying jobs in the IT/BPO sector, with indirect employment at 180,000 from 2011- 2013 during the AF - 18581 IT jobs have been created in the IT industry, non IT user organizations and the Government (target of 10,000 additional jobs was expected to be created)
Regional Telecommunications Network Program	Promoting provision of competitive and affordable telecommunications services for various users, particularly for the poorer segments of society and integrate the communities of the country. AF: this component was not implemented under AF	The component was cancelled in the restructuring process and budget was reallocated among other programmes
Telecenter Development Program	To empower the population in rural areas of South, North, and East through affordable community access to information and	ICT literacy rate, which was less than 8% in 2005 had surpassed 35% by 2012, primarily due to the expansion of the Rural Telecenter (Nenasala) network in

	communication technologies.	remote areas under the e-Sri Lanka Development initiative.
	, v	L .
	AF:	65.2% are financially self-sustaining, Out of 741 established 629 remain in
	The common set will summer the establishment of extra 40	operation as at December 2013
	The component will support the establishment of extra 40 telecentres in underserved areas.	
		Nenasala' users are 40.5% female, and 54.3% youth.
		<u>Nenasala centers</u> promoted several ICT-enabled rural entrepreneurship, and.
		has established partnerships with multinational companies, private and public
		organizations, development Agencies and NGOs.
		Based on learning from the past an improved business model was established in the North and Fast and none of the Tale centers were subsidized under the
		AF as in the case of the original project
		Tele-center training is now recognized through accreditation by the National
		Accreditation Authority and the Tele-centers are in the process of getting
		accreditation, a new development during the AF.
		The user satisfaction rate for core government eServices is 85%. 54% of the
		Tele-center operators are below 25 years and 61% had high level of IT
		knowledge.
		Fighty five percent of the operators indicated that there were no ICT facilities in
		the area before the Nenasalas were setup.
		r
		70% of the users and 76% of the operators indicated that Tele-centers
		contributed to improving ICT literacy among community especially the youth.
		84,894 persons have received IC 1-related training through nenasalas, of whom 68.3% have been certified. The courses covered MS office, general computer
		training, internet and e-mail use, and courses for children. Such training has
		indeed raised the level of ICT literacy of the rural population, enhanced the
		level of computer use and ownership, raised job opportunities for the trainees,
		and increased the application of ICT knowledge and skills in the day to day
		lives of the beneficiaries.
		About 15% registered their training courses with the Tertiary and Vocational
		Education Commission, About 16% centers used for distance learning
Re-engineering Government Program	The programme pursues major and sustainable improvements in	Lanka Government Network is being used to provide government electronic

GOSL's efficiency, transparency, effectiveness, and quality of	services in a secured manner. At present 550 provincials and central
services. For this purpose it will reinforce and expand	government organizations are connected.
fundamental governance and public management reforms for the	
most part already identified by GOSL and the international	Improved capacity of the government staff to use LGN. ICT Skills Training.
development community	System Administration Training and Advance Technical Training for 850
	government officers in the northern and the eastern provinces under LGN stage
A E.	III
AF: Ecoursed on 2 main activity gross, namely Lonka Covernment	
Network (I GN) Phase 3 & Training Lanka Gote and Eservices	The government wide infrastructure was highly accepted
which will scale up, rollout and improve access to citizens	
throughout the country to government e-services resulting in	enthusiasm shown by the public sector staff towards automation and training
efficiency improvements in service delivery	and the willingness to use the systems to improve service delivery
The second se	
	on system admin training 600 govt officers trained on ICT skills 100
	government officer trained on advance ICT technical skills training
	(Joomla/A+/MySOL)
	Over 15,000 government staff and 600 Chief Innovation officers have been
	trained on basic ICK skill as well as advanced managerial skills under various
	programmes during the e Sri Lanka parent project.)
	Enabling infrastructure for rapid deployment and integration of electronic
	Services
	The Lanka Gate infrastructure comprising country portal (www.srilanka.lk),
	internet and mobile payment gateway (Lanka Gov Payment Service), SMS
	gateway.
	dedicated Government cloud (first of its kind in South Asia),
	Interoperability framework for standards to secure data sharing,
	More effective, efficient and citizen friendly mechanism for delivering public
	services-
	electronic services (eServices) are provided through multiple options (internet
	SMS and mobile applications). In total 48 transactional and informational e
	services offered by 22 Government organizations over 135 interactive e
	Services through websites: over 475 government websites:
	Sorvices unough websites, over 475 government websites,
	Usage of Beengineered a Covernment employed on consistent
	Usage of Reengineered e-Government applications (e-population registry
	project, e-pensions, and e-divisional secretariat)
	High usage of birth, marriage and death certificates ; (20 million certificated

		were digitalized)
		Successfully functioning human resources managements systems- at Ministry of Public Administration,
		High usage of Government Information Center covering over 3000 services - over 5500 call per day) .
		The e-Revenue License (the first transactional e-service) created the path to accepting electronic payments for government services, was implemented in the Western Province (2010) is now being replicated in the other provinces.
		The Visa online through ETA (Electronic Travel Authority) also uses the Lanka Gate Payment system.
		The number of citizens conducting online transactions with the government has increased from 7.2 million in December 2012 to 11 million by end of November 2013 (these are number of hits and a single person may use various e services) Sri Lanka government online portal started offering services to the public in 2009. empowered the public sector staff with necessary technical skills needed in maintaining and managing multi-user computer systems and networks provided through LGN
		The e-Revenue License rollout is complete in Western Province and pilots have commenced in the Southern and Central Provinces
		e-Population Register, the roll out has been done in 5 districts (Colombo, Kalutara, Puttalam, Nuwara Eliya, and Kurunegala) and is issuing eCertificates
		Birth, Marriage and Death (BMB) Certificates are available in scanned form which can be retrieved and issued to the public without delay.(birth, marriage and death certificates can be obtained any divisional secretariats within the district)
		Multiple online payment mechanisms i.e (i) Credit/debit cards and (ii) mobile payments. ICTA offers LGPS to all government organizations intending to develop paying services offered to their clients.
eSociety Program	The programme goal is to promote the innovative use of ICT to	improve livelihood and living conditions of rural communities through using of

	meet economic and social needs of the most vulnerable groups in Sri Lanka; to develop approaches to scale up successful applications; and to empower civil society with affordable access to information, communication, and relevant local content. AF: It will also support the rolling out of eservices through these centres and the development of 1-2 high impact services in collaboration with the private sector. (under AF e-Society and telecenter programmes were combined)	 localized ICT content and applications he contents were developed by CBOs supported by eSociety Programme. Some of this applications have the potential for replication Availability of several local language applications that enable all ethnic groups to have equal access to eServices and benefit of ICT Tamil language enabled services (e.g English learning for Tamil language users, Tamil language digitization project and web based A-Level science learning system for Tamil students). Information Management systems that can be replicated in other sectors such as Irrigation Water Management in Maduruoya and Hospital Health Information Management Value added services distributed through Telecenters (services of some corporate businesses such John Keells, Intel, Dialog, HNB Assurance etc) staff qualified in ICT or ICT literate staff have increased in the public service in the provinces and they volunteer to provide technical support for efficient and effective service delivery User satisfaction: CAP & sCAP 77%, PAP- 60%, RAP 72%
		AF Projects 74%
Integrated Communication	In the original project this component was under the ICT Policy programme. AF: An integrated communication strategy will be developed and implemented at national, district and at village level. intended to create awareness at all these levels about on line services offered by the government	Communication activities carried out by ICTA seem to have been effective as the ICT use in rural areas and among public officials have increased

Project Outputs/Deliverables

Programme	Projects	Project Outputs/Deliverables					
Programme ICT Policy, Leadership and Institutional Development Program	Projects E laws, e leadership (CIO training), integrated communication*	 Project Outputs/Deliverables Enacted ICT related Laws, including the Electronic Transactions Act (2006), the Computer Crimes Act (2007), data protection legislations etc Sri Lanka Computer Emergency Readiness Team (SLCERT) was set up. The CERT was established in 2006 as Sri Lanka's National CERT by the ICTA. The CERT handled incidents relating to phishing attacks in the banking industry, web compromise incidents and consultancy and awareness programs relating to cyber security. LGN – Certificate Authority (LGN-CA).was set up in 2009 to facilitate the digital certificate requirements of the public sector government organizations. finalized a Data Protection Code of practice and this would be shared amongst stakeholders 					
		 Local Languages Initiative (LLI): i) Enabling Sinhala and Tamil in mobile operating systems; (ii) Text to Speech System for Sri Lanka Tamil and Speech to Text system for Sri Lanka Tamil; (iii) Unicode compliant publishing in Sinhala and Tamil (iv) Developing a Sri Lanka Tamil language corpus; and (v) Developing Translation Tools to enable translations between Sinhala and Tamil have been implemented or nearing completion Facilitated to issue the <u>Financial Regulations (FR 447/2010)</u>, which has enabled the use of Credit Cards and electronic payment methods (including mobile payments) to pay for government services Developed a comprehensive e government policy and the policy document approved by the cabinet of Ministers 800 CIOs were trained under various programmes 					
ICT Human Resources Development and Industry Promotion Program	All activities under this component carried out with a view to enhancing the competitiveness of Sri Lanka across the region and internationally	 Under AF 55 Trainers and 1,271 staff in private companies have been trained under ITES skilled training and train the trainers program to increase the skill base. under the Industry Business Promotion Program, 37 companies participated. trainers (ToT) program Offer IT/ITES vendor certification as part of promoting increased certified IT skills; fund training for new recruits of BPOs to realign them to ITEs related operations. seed capital is provided to start ups to develop innovative business concepts and ideas, the domestic IT SME linkage program that promotes the introduction and utilization of ICT in SMEs and which enhances competitiveness while providing a platform for IT SMEs to show case their products and service offerings in the various provinces in the country 					
Regional Telecommunications	-	The project was cancelled and budget was reallocated among other components					
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Network Program	Talagantar projecto						
Telecenter Development Program	Telecenter projecte	• As at December 2013 741 telecenters (Nenasala centers) were established throughout the country. All the telecenter operators and owners were trained under formal and residential training programmes ground level implementation support provide to telecented through mobilizing a field support team in all locations					
		Under AE					
		 40 Tele-centers have been established in 5 districts of the Northern Province and 2 districts of Eastern Province which were affected by the conflict and are functioning 					
		• 300 Tele-center/operators have been provided with technical training of which 80 participants are from the newly set up Tele-centers in the North and East					
		• 13-day residential training program to provide necessary skills to 200 Nenasala owners and operators, including 80 participants from the recently set up Nenasala centers in the Northern Province					
		• Emphasis should be laid by the Government's ambitious plan of having telecenters in every Grama Niladari Division.					
		• Nenasala website with GIS features - create more information about the Nenaslas and create competition among them.					
Reengineering Government Program	E Pension E population registry ICT Capacity building for government staff E HRM, E State lanad Information Management Project E Samuardhi Project E Local government Project E Diriya project E Services	 LGN: The installation of the Lanka Government Network (LGN) in 74 sites in all 5 districts in the Northern Province and 2 remaining districts in the Eastern Province. With the expansion of the LGN network into the conflict affected areas, the connectivity cycle has been completed. Lanka Gate (middle ware component) Service Oriented Architecture (SOA) based messaging infrastructure, which is envisioned to be the gateway for electronic information and electronic delivery in Sri Lanka. launched in 2009 December and further enhanced under AF to cater for the changing demands and emerging technological advancements This includes improving Lanka Gate security framework, information and service classification, leveraging on the mobile initiatives to enable citizens make use of mobile as a payment mechanism and as a service delivery channel 					
		 Provision of E Services: new e-services proposed under the AF have been launched , Some of the eServices are for Colombo Municipal Council (Property tax payments, Payment of trade taxes, Payment of 					

taxes on business), for Employment Trust Fund (ETF member management service, viewing ETF balances, Claim application status) etc
• Country Portal : www.srilanka.lk serves as a primary interface that connects users to the eServices provided within the Lanka Gate. Therefore the Country Portal is a fundamental access point for citizens, non-citizens, businesses, agents and government employees to various government organizations and businesses in Sri Lanka and abroad.
• Lanka Government Payment Service (LGPS): core component of Lanka Gate which offers multiple online payment mechanisms via credit/debit cards and mobile payments, enables government organizations to offer paying services to citizens. This was possible due to the amendments to the Financial Regulations (FR 447/2010) carried by the Ministry of Finance and Planning, which was facilitated by ICTA, as one of the key regulatory reforms of the Lanka Gate initiative, to enable government organizations to offer paying services to citizens.
• Mobile Portal : In addition to facilitating mobile payments, ICTA has offered Government SMS, Government USSD and Mobile Apps as part of the mobile based service portfolio.
• Lanka Government Community Cloud (LGC) Servers will be hosted by the 'Cloud' and reduces the cost of electricity, UPS, AC and allows automatic scalability, ensures high reliability with no-down time. The LGC currently hosts Lanka Gate, eRevenue License, Sahana Disaster Management System, eLocal Government, eSamurdhi and Location Code and Village list
 Training/ empowering government staff Completed the training of 850 staff including the CIOs in the North and East as envisaged under AF. The number of Certified Chief Innovation Officers (CIOs) under AF was 165 of which 89% have completed the training the training of 850 staff in the North and Eastern Provinces under AF to ensure that public sector staff are equipped to use the ICT infrastructure general ICT skills training for 600 government officers, technical skills training for 150 System Administrators and advanced internally recognized ICT training for 100 officials in the North and Eastern Provinces have been completed Training was delivered through 7 training centers in each of the 7 districts a post graduate diploma in e-Government offered by Post Graduate Institute of Management (PIM
100 government officers in the North and East in Joomla/PHP/My SQL and A+ in addition to a certification process for government leaders in ICT for development.

		 Information systems and applications Some of the main applications developed under the original project like e-Revenue License (e-RL), e-Pensions, e-Civil registry were to be further enhanced and rolled out during AF. The e-Revenue License rollout is complete in Western Province and pilots have commenced in the Southern and Central Provinces. Western Province accounts for more than 50% of motor vehicle registration in the country. E government Policy
eSociety Program	CAP, PAP, sCAP, Sustainability grants, e Swabhimani events	there were several successful pilot activities with potential for scale up and replicated in other locations 180 e SDI grant projects including 34 PAP (5 mil Rs) nd 143 CAP (0.5 Rs mil small grabt projects implemented. Out of that 43 projects replicated in 1641 sites
Under AF: Integrated Communication	The focus of the additional financing aimed at creating awareness for major applications and other e Services developed under the Re- engineering government component. The strategy adopted was multi-pronged and integrated where all channels of mass media (TV, Print media and Radio) were used when a specific eService developed under the project was launched.	The media activities and event specific communications were carried out throughout the country, with a special focus on the North and East Provinces as AF mainly focused on these areas in order to create awareness about services developed under the project a weekly TV and a radio programs were aired where awareness was created and discussions were conducted about the eServices provided and other ICT related information to the general public. ICTA has carried out many awareness activities among its stakeholders. Media activities and event specific communication were carried out nation-wide but with a special focus on the North and Eastern Provinces During the period from December 2012 to December 2013, 24 events, 657 press releases in all there languages, 97 advertisements (e.g. Lanka gate, eDiriya awareness, BMD awareness, eCitizen project etc) 13 publications and 206 media programs were conducted

4. Factors Affecting Implementation

- 1. It was a strong and positive factor that ICT agency is operation under the residential Secretariat.
- 2. It is an advantage that capacity building has been recognized as an integral part of project implementation n the project design. Attention has been paid to train project stakeholders at various level. Government CIOs, other government staff in all level including head of departments, District and divisional secretaries, management assistant staff were empowered through various training. These training were on basic awareness, ICT skill training, and tailor made training overseas priogrammes, postgraduate diploma and MBA one government conducted in well recognized local universities.
- 3. Cross sectorial programme design and holistic e development approach adapted was highly beneficial, even though some minor changes made during the implementation and in the restructuring process
- 4. From the beginning itself, the Bank strongly supported for a comprehensive M&E system. ICTA was able to set up well-structured clearly defined results based Monitoring and Evaluation (M&E). the M&E system was focusing on measuring performances, evaluating progress, assessing impact and ensuring public accountability.
- 5. Participatory approach adapted by ICTA was useful for getting the project stakeholders involved in the implementation and thereby created a ownership which lead for sustainability
- 6. Used innovative mechanism to promote the software industry, diffuse ICT among small enterprises, and invest in appropriate human resources for the information society.
- 7. ICTA organizational structure help immensely to retain quality workforce and implement innovative projects successfully. Commitment made by the ICTA towards achieving results was highly recognized by the stakeholders at all level
- 8. Incentives given to bridge the digital divide through telecenters was also a contributory factor to achieve the overall results of Sri Lanka results

5. Transition Arrangements for sustaining project's achievements after the project closure

- ICTA has already set up a subsidiary Lanka Government Information Infrastructure-LGII (fully owned subsidiary of ICTA) which is funded through the government budget. The aim of LGII is to provide technical and systems maintenance support and technical oversight for the major programs initiated by ICTA.,
- The e government projects initiated under the eSri Lanka project have been handed over to the implementing agencies. In the 2014 Budget, the required allocations have been provided for critical activities.
- ICTA already created enabling environment (legal and policy framework, standards, core infrastructure, human resources development and software platform) required for ICT development of the country
- Income generating state agencies is required to pay for the LGII services in the immediate future. National Budget 2014 has allocated adequate funds to sustain critical activities.
- Under the eSri Lanka project, significant investment was made towards build capacities of primary stakeholders and project beneficiaries. This training programmes ensured formation of a cadre of public servants competent in the planning, use, management, and outsourcing of ICT.
- Complex ICT application development and facility operation will be outsourced to the private sector.
- By focusing on creating an enabling policy, legal, and regulatory framework, the project accelerated private sector participation in investment and operations. The improved coverage, quality, and price of telecommunications services will be sustained as investment and competition grows within a clear regulatory environment.
- Ministry of Telecommunication and IT strongly support to implement and monitor the Nenasala project. Arrangements are being made through the Ministry to get Divisional Secretariats involved to support and monitor the Nenasala centers in the future.

6. Risks for Sustainability

7. Lessons Learned

- 1. there is a need for more inter agency coordination at the higher policy level to achieve the optimum level of usage of the ICT infrastructure provided under the Project.
- 2. Need more follow up and capacity building on the rolling out of Government applications such as eRevenue, eCivil Registry and Pensions and coordinate closely with the LGN users to promote use of the systems installed and provide regular and continued technical support
- 3. Government organizations is facing a serious problem of retaining ICT trained staff and especially when they are transferred, adequate replacements have not been made.
- 4. There is a high level of acceptance of the infrastructure but adequate e-Services have not been rolled out yet for optimal use of the system.
- 5. As there is a lack of awareness about the LGC various government organization are using standalone server systems which lead for high cost for maintaining. Need more awareness and promotion
- 6. The VoIP phone system installed under LGN is not adequately used especially by the DSs since the "Upahara Scheme" was introduced specially to the public officers by Mobitel which is convenient and economical.
- 7. In addition, the ICTA has been providing FOSS based systems (Free and Open Source System) under LGN Phase 3, a virus free system which would help in reducing payment of license fees in the future. In the LGN Phase 3, all the work stations have been provided with FOSS based systems
- 8. The biggest challenge for transformational change lies on getting organizational buy in. which needs more effective strategies to handle the situation.
- 9. Managing organizational change is critical to overcoming resistance to change in work practice and service delivery. It has been realized that managerial skills are often more critical than technical skills for managing the organizational change. Special strategies need to be adapted right from the beginning to address this matter.
- 10. Timely, accurate and reliable M&E findings are critical to improve programme performances. Having M&E capacity at the highest of the government organizations is crucial to secure oversight and accountability, authority and influence to make course corrections. M&E should be viewed as a strategic tool for the design, implementation and adapting changes.
- 11. Actual time spent for designing the M&E system was much higher than the allocated time in the contract. The reason is delaying in planning and designing projects. Therefore ICTA had to adapt an iterative process to design and pilot implementation. The ICTA had to amend the contract accordingly with the request of the consultant.
- 12. Nenasala significantly contributed to improve the ICT literacy level and to start small business in the rural areas,. As there is a room still for further improvements in terms of usage, more promotional activities are required in the community level/ catchment area of Nenasala

The core focus areas were:

- (i) Government Efficiency;
- (ii) IT Industry Development and SME Competitiveness;
- (iii) Access, Connectivity and Local Content and Innovation
- Component 1 on e-regulation, policy, and strategy (e-leadership) helped introduce transparency and efficiency in government, as well as innovation.
- Component 2 (ICBP) had strengthened Sri Lankan business and SME competitiveness through ICTA.
- Component 3 (BCI) targeted internet connectivity for all, and despite cancellation, the dialogue on breaking up the existing broadband cable monopoly had actually resulted in competition from an alternative wireless technology which had indeed penetrated remote rural areas and provided connectivity.
- Components 4 and 6, on Telecenters and E-Society, targeted the lower-income groups and remote, rural areas with ICT, e-services, and innovation grants to increase access to markets and information essential to their livelihoods
- Component 5 (Re-Gov) placed the government on the web making public services available online to business and citizens.

Outcome Indicators	Baseline	YR4 2008	YR5 2009	YR6 Feb 2010	YR6 Oct 2010	YR7 Mar 2011	YR7 Sep 2011	YR8 April 2012	YR8 Dec 2012	YR 9 June 2013	YR 9 Dec 2013
(I.A) 5,000 beneficiaries in targeted	0	3,500	5,000	5000	5000	5000	5000	5000	5000	5000	5000
communities using telecenters to improve their communication opportunities and access to services rate of 70% (by year four)	Actual:	20,000 82%	20,000 82%	23,474 75%	33,818 96%	33,818 96%	33,818 96%	33,818 96%	50811	50811	43,475 87%
(I.B) x [% or #) increase over baseline in utilization and satisfaction with services established as a result of e-SF financial assistance.	 i) usage: CAP - 25% low, 44% average, 31% high usage. PAP - 20% avg, 80% high usage. ii) satisfaction n: n.a. (2007) 	TBD by selectio n process.	TBD by selection process.	TBD by selection process.	TBD by selection process.	TBD by selection process.	TBD by selection process.	TBD by selection process			
	Actual:	CAP - 25%, 44%, 31% PAP - 20% avg, 80% high usage.	CAP i)20%,58 %, 22%. ii) 90% PAP i)33%, 38%, 29% ii) 96%	CAP i) 20%,58%, 22%. ii) 90% PAP i)33%, 38%, 29% ii) 96%.	CAP i) 20%,58%, 22%. ii) 90% PAP i) 33%, 38%, 29% ii) 96%.	CAP i) 20%,58%, 22%. ii) 90% PAP i)33%, 38%, 29% ii) 96%	CAP i) 20%,58%, 22%. ii) 90% PAP i) 33%, 38%, 29% ii) 96%.	CAP i) 20%,58%, 22%. ii) 90% PAP i)33%, 38%, 29% ii) 96%.	User Satisfacti On CAP- 83% PAP- 64% sCAP- 100% RAP- 67%	CAP- 83% PAP- 64% sCAP- 100% RAP- 67%	CAP & sCAP 77% PAP- 60% RAP 72% AF Projects 74%
(II.) 5% of target beneficiaries (5mn citizens and businesses) conducting transactions with the central government on-line	0 Actual:	4% 632,500 12.7%	5% 732,500 14.7%	5% 776,000 (15.5%)	5% 4,144,448 (82.9%)	5% 4,144,448 (82.9%)	5% 5,778,290 (115%)	5% 5,778,290 (115%)	7,636,974 (153%)	9,009,250 (180%)	11,088,886 (222%)

(III.A) Reach 4.2 score on the business	3.46	4.1	4.2	4.2	4.2	4.2	4.2	4.2			
usage subscale of the NRI index	business										
	usage										
	subset										
	score in										
	NRI										
	(2003)										
	Actual:	4.59	4.84	4.84	4.86	4.6 ³	4.6 ³²	4.67	4.55	4.0	4.0
(III.B) 10,000 jobs created in ICT	< 3,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000			
industry (IT-enabled services)											
	Note:										
	revised										
	baseline:										
	20,279										
	jobs										
	Actual:	42,713	44,660	50,159	50,159	50,159	50,159	50,159	70,256	70256	75,107

PDO Indicator (AF)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years	
Indicator:			·		
1. Improved access and use of ICT in target areas (as measured by number of beneficiaries in target communities using telecentres on a regular basis to improve their communication opportunities and access to services – e.g. Health, Education, Employment & Govt.	0	33,000	40,000	43,475	
2. User satisfaction with applications established under the e-society grant mechanism with a satisfaction rate of 70%.	0	70	70	CAP & sCAP 77% PAP- 60% RAP 72% AF Projects 74%	
3. 7.5% of target beneficiaries (7.5 mn. citizens and businesses) conducting transactions with the central government on-line.	0	7,500,000	7,500,000	11,088,886	
4. Reach 4.7score on the business usage subscale of the NRI index	3.46	4.70	4.70	4.0	
5. 10,000 jobs created in ICT industry (IT-enabled services	20,000	60,000	60,000	75,107	
6. Project beneficiaries	0	7,700,000	7,700,000	11,610,588	
7. Of which female (beneficiaries)	0	2,700,150	2,700,150		

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

N/A