

DIGITAL GOVERNMENT IN DEVELOPING COUNTRIES- ISSUES AND STRATEGIES

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A map showing Sri Lanka in the Indian Ocean, south of India. Surrounding countries include Uzbekistan, Kyrgyzstan, Turkmenistan, North Korea, South Korea, and Japan. The Sea of Japan and Yellow Sea are also labeled.

SRI LANKA AT A GLANCE

- **An Island in the Indian Ocean South of India (7-N, 81-E)**
- **The size of West Virginia (25,000 sq miles)**
- **Population of 19M, the size of NY State (30% is urban)**
- **and a Per Capita GDP of \$ 3,530 (USA is \$36,300)**
- **Adult Literacy - 92%**



- **Infant Mortality - 17 per 1000 Live Births**
- **Life Expectancy - 72 Years**
- **Three Official Languages - Sinhalese, Tamil, English**
- **Major Ethnic Groups -**
 - **Sinhalese 74.0% Tamils 18.1% Moors 7.1% Others 0.8%**
- **Major Religions -**
 - **Buddhists 69.3% Hindus 15.5% Muslims 7.5% Christians 7.6% Others 0.1%**

ICT IN SRI LANKA – INDICATORS

As at end of 2002

- **TELECOM SERVICES**

- Fixed Voice 768,000 *
- Wireless Local Loop 114,000 (2)
- CELLULAR 907,000 (4)
- DATA COM 70,000 (6)
- PAGING 5,000 (2)
- PAY PHONE 6,600 (4)

DENSITY = 40/K

- **COMPUTERS (usable) 300,000**

DENSITY = 15/K

- **INTERNET**

- ISPs 29
- .lk HOSTS 2,500
- SUBSCRIBERS 75,000

- **TELEVISION**

DENSITY = 111/K

* Monopoly ended in March 2003 (Number of service providers)

GOVERNMENTS IN SRI LANKA

- **RECORDED HISTORY OF OVER 2500 YRS**
- **ANCIENT KINGDOMS OF ANURADHAPURA, POLONNARUWA, SIGIRIYA, KOTTE & KANDY**
- **PORTUGUESE RULES COASTAL AREAS – 16TH C**
- **DUTCH RULES COASTAL AREAS - 17TH C**
- **BRITISH DRIVE AWAY THE DUTCH IN 1796**
- **BRITISH CONQUERS WHOLE ISLAND IN 1815 & SIGNS TREATY**
- **INDEPENDENCE 1948**
- **MAJOR SOCIAL CHANGES 1956 (e.g. Official Language)**
- **DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA 1972**
- **EXECUTIVE PRESIDENCY INTRODUCED IN 1982**
- **PEACE INITIATIVES IN 2002 AFTER 20YRS OF “WAR”**

THE PRESENT SYSTEM OF GOVERNMENT

- **ELECTED EXECUTIVE PRESIDENT**
- **PRIME MINISTER & CABINET FROM NATIONAL PARLIAMENT**
 - NATIONAL GOVT. ADMINISTRATION
- **ELECTED PROVINCIAL COUNCILS**
 - PROVINCIAL ADMINISTRATION
- **ELECTED LOCAL AUTHORITIES**
 - LOCAL AUTHORITY ADMINISTRATION

ICT IN GOVERNMENT

- **BACK OFFICE**
- **FRONT OFFICE**
- **NETWORKS WITHIN SAME INSTITUTION**
- **INFORMATION SHARING BETWEEN INSTITUTIONS**
- **INTERNET BASED ACTIVITIES**
- **INFORMATION SERVICES**
- **INFORMATION INTERCHANGE**
- **2-WAY TRANSACTIONS**
- **MULTI PARTY TRANSACTIONS**

ICT BASED PUBLIC SECTOR INITIATIVES (1960-1980)

- **INSURANCE (BACK OFFICE)**
- **ENGINEERING (DESIGN)**
- **CENSUS & STATISTICS (DATA PROCESSING)**
- **SEAPORT (CONTAINER TERMINAL)**
- **AIR PORT (BACK OFFICE, RESERVATIONS)**
- **BANKS (BACK OFFICE, ATM)**

ICT BASED PUBLIC SECTOR INITIATIVES (1980 -)

- **DECENTRALISED DISTRICT BUDGET MONITORING**
- **PENSION PAYMENTS**
- **DSS FOR INTEGRATED RURAL DEVELOPMENT**
- **AUTOMATED CLEARING HOUSE (CENTRAL BANK)**
- **ELECTION RESULTS (PROCESSING AND LIVE
RELEASE OF RESULTS VIA NATIONAL TV &
INTERNET)**
- **BILLING FOR UTILITIES (TELECOM, ELEC., WATER)**
- **ISSUE OF PASSPORTS**
- **TAXATION (PARTIAL)**
- **LOCAL LANGUAGE COMPUTING**
- **ESTABLISH MENT OF ICT APEX AGENCY-CINTEC
(1985)**

- National Election Results

කොළඹ දිස්ත්‍රික්කය கொழும்பு மாவட்டம் COLOMBO DISTRICT

දෙහිවල-ගල්කිස්ස මහ නගර සභාව
தெகிவளை - கல்கிசை மாநகர சபை
DEHIWALA-MOUNT LAVINIA MUNICIPAL COUNCIL

SEATS
29



	පො.එ.පෙ.	பொ.ஐ.மு.	PA	37,481	46.37%	15
	එ.ජා.ප.	ஐ.தே.க.	UNP	30,791	38.09%	10
	ජ.වි.පෙ.	ம.வி.மு.	JVP	4,622	5.72%	2
	ස්වාධීන 1	சுயேட்சை 1	IND1	4,156	5.14%	1
	ම.එ.පෙ.	ம.எ.பெ.	MEP	3,125	3.87%	1
	ස්වාධීන 2	சுயேட்சை 2	IND2	656	0.81%	0



වලංගු	செல்லுபடியானவை	VALID	80,831	95.19%
ප්‍රතික්ෂේපිත	நிராகரிக்கப்பட்டவை	REJECTED	4,081	4.81%
ප්‍රකාශිත	வாக்களிக்கப்பெற்றவை	POLLED	84,912	69.41%
ලියාපදිංචි	பதிவுசெய்யப்பட்டவை	REGISTERED	122,326	

ICT BASED INITIATIVES (1990 -)

- **EDI/E-COMMERCE**
- **NATIONAL WEB PORTAL**
- **DOMAIN NAME REGISTRY & LK-NIC**
- **ATTEMPT TO ESTABLISH ATM SWITCH**
- **INTERNET EXCHANGE**
- **FINANCE MINISTRY ACTIVITIES**
- **MONITORING OF EXTERNAL RESOURCES**
- **MINISTRY OF FOREIGN AFFAIRS NETWORK**
- **GOVERNMENT PRINTER' S INTRANET**
- **KOTHTHMALE COMMUNITY RADIO**
- **ONLINE IMMIGRATION CLEARANCE AT AIR PORT**
- **DISTANCE LEARNING CENTRE**
- **MULTI PURPOSE COMMUNITY TELECENTRES**

DIGITAL GOVERNMENT

EXPLOITING INFORMATION
& COMMUNICATIONS
TECHNOLOGIES
TO SERVE THE CITIZENS

IMPROVING EFFICIENCY,
EFFECTIVENESS,
TRANSPARENCY &
ACCOUNTABILITY OF
GOVERNMENT



COMPUTERS BEING INTRODUCED TO
THE INDIGENOUS TRIBAL CHIEF OF
SRI LANKA (1990)

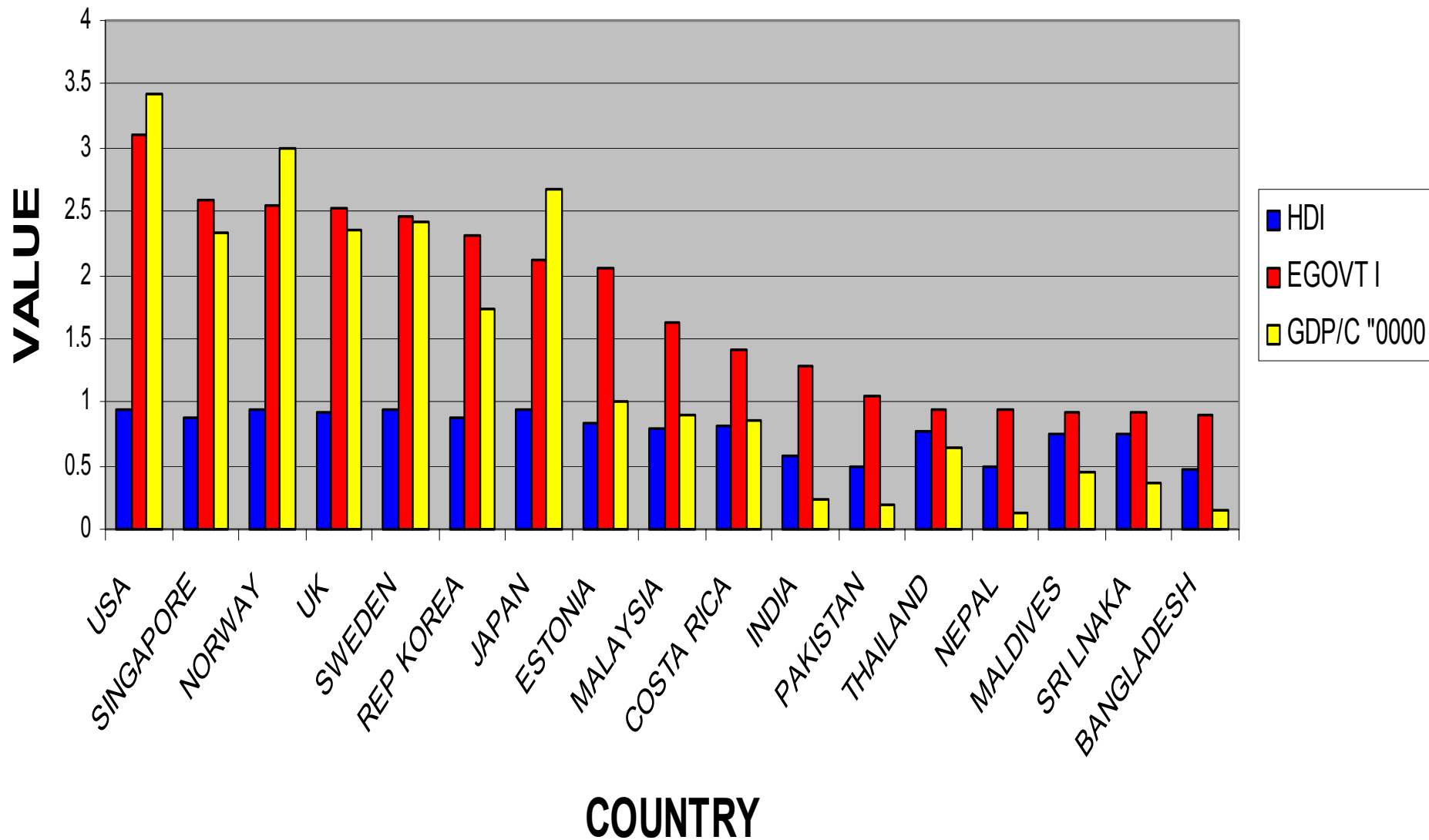
THE BENEFITS OF DIGITAL GOVERNMENT TO THE CITIZEN

- **CITIZEN BASED SERVICES**
- **EFFICIENT & DECENTRALISED ADMINISTRATION**
- **REDUCTION OF PAPER WORK & PAPER MOVEMENT**
- **AVAILABILITY OF INFORMATION**
- **TRANSPARENCY**
- **INTEGRATION OF PROCESSES**
- **EASIER PAYMENTS**
- **EASIER COMMUNICATIONS**
- **EASE OF INTERACTION WITH GOVT APPARATUS**

THE BENEFITS OF DIGITAL GOVERNMENT TO THE STATE

- EFFICIENT & DECENTRALISED ADMINISTRATION**
- TRANSPARENCY**
- REVENUE COLLECTION**
- SAVINGS ON EXPENDITURE**
- PROVISION OF EFFICIENT CITIZEN SERVICES**
- PUBLIC FEEDBACK**
- E-PROCUREMENT**
- INFORMATION DISSEMINATION**
- STIMULATION OF ICT INDUSTRY**

HDI, EGOVTI & GDP/C



EXAMPLES FROM OVERSEAS

- **ANDRA PRADESH** **LAND REGISTRATION,
CITIZEN DATABASE**
- **SINGAPORE** **TAX ASSESSMENT,
SINGAPORE ONE
www.ecitizen.gov.sg**
- **MALAYSIA** **MyKad SMART CARD**
- **FINLAND** **Netposti POST OFFICE
PAYMENT SYSTEM**
- **SOUTH KOREA** **E-PROCUREMENT**
- **CANADA** **E-JUSTICE**
- **UK (NEWHAM)** **E-SERVICE FOR ALL BY 2004**



Policy Development



eIndustry e-Government e-Society
eCommerce e-Education

National ICT Masterplan
2002-2006

IT 2000 Policy

IT 2010 Policy

National IT Committee (founded 1992)

NITC/Ministry of ICT

^1992 ^1993 ^1994 ^1995 ^1996 ^1997 ^1998 ^1999 ^2000 ^2001 ^2002 ^2003 ^2004 ^2005 ^2006

Introduction of Internet

Software Park Thailand

Software Industry Promotion Agency

SchoolNet

Government Information Network

Government CA Service

Government CIO Program

E-Commerce Resource Center

IT Law Development

Electronic Transactions Act

NII, CompCrime, DP Acts

e-Thailand

e-Government Project

English-Thai Web Translation

**TIS-620 Thai
Character set in
UNICODE**

**TIS-620 Thai Character set
registered with IANA**

Policy Issues: National ICT Policy in Thailand

Thaweesak Koanantakool, July 3, 2002.

ISSUES

- **VISION & POLICY WITH NO ACTION**
- **POLITICAL WILL & LEADERSHIP**
- **RESISTANCE TO CHANGE, ATTITUDES**
- **PROCEDURES, REGULATIONS & LAWS**
- **USE OF NATIONAL LANGUAGES**
- **AWARENESS & HUMAN RESOURCE DEVELOPMENT**
- **ACCESS, AFFORDABILITY, BANDWIDTH & POWER**
- **SECURITY, PRIVACY & NON REPUDIATION**
- **ENFORCEMENT**
- **INCENTIVES**
- **DONOR POLICIES**
- **CREDIBILITY (ACCURACY, RELIABILITY, UPDATING, BACKING UP)**

STRATEGIES

- **A NATIONAL POLICY & ROAD MAP**
- **LEADERSHIP AT THE HIGHEST LEVEL**
- **INTEGRATION WITH NATIONAL PLANNING**
- **BUILD UP ON EXISTING INITIATIVES & INSTITUTIONS**
- **ACCEPTANCE BY ALL**
- **TRANSPARENCY & SUSTAINABILITY**
- **DONOR SUPPORT & COLLABORATION**
- **ENSURE BENEFITS TO PEOPLE & NOT A SELECT FEW**
- **KEEP UP WITH CONTINUING TECHNOLOGY DEVELOPMENTS**
- **ENSURE SECURITY & CREDIBILITY**
- **PROVIDE FOR UPDATING, TECH SUPPORT & ARCHIVING**

STRATEGIES FOR DELIVERING THE VISION ”

- POLICY, IMPLEMENTATION & MONITORING**

- APEX ICT AGENCY
- PUBLIC SECTOR REFORMS
- LEGAL REFORMS
- STANDARDS & SECURITY
- MONITORING, RESEARCH

- ACCESS**

- LIBERALISATION OF TELECOMS
- ACCESS POINTS (e.g. MULTI PURPOSE COMMUNITY TELE CENTERS, POST OFFICES, PUBLIC LIBRARIES)

- DELIVERY**

- SECURE GOVERNMENT NETWORK & CITIZEN SERVICES

- CONTENT**

- CONTENT DEVELOPMENT
- USE OF LOCAL LANGUAGES

- SUPPORT**

- LOCAL CENTRES OF EXCELLENCE (e.g. UCSC)

REGAINING SRI LANKA

- This document available at regainingsrilanka.org spells out the government strategy for National Development.
- There are several sectors of which one is the Telecom/ICT sector.
- This is further divided in to 6 sub sections:
 - ICT implementation Mechanisms
 - Dynamic Telecommunications Infrastructure
 - Human Resources to Support ICT Strategy
 - Promotion of Software and ICT enabled Industries
 - e-Government
 - Bridging the Digital Divide

e-Sri Lanka

smart people - smart island

- a vision which will take the dividends of ICT to every village, to every citizen, to every business and also transform the way Government works.

**E- SRI LANKA IS THE INITIATIVE OF THE PRESENT GOVERNMENT
TO EXPLOIT ICT FOR NATIONAL DEVELOPMENT www.esrilanka.lk**

Declared by Hon Prime Minister Ranil Wickremasinghe

on 20th November 2002

The Vision of an e-Sri Lanka

STRATEGY FOR IMPLEMENTATION

- **BUILD IMPLEMENTATION CAPACITY**
- **BUILD NATIONAL INFORMATION INFRASTRUCTURE AND ENABLING ENVIRONMENT**
 - Building “Hard” Infrastructure – *providing affordable telecommunications services for various users, and ensuring local and global connectivity*
 - Building “Soft” Infrastructure and Creating the Enabling Environment
 - Building Capacity for Adaptation, Learning, Monitoring, and Evaluation
- **DEVELOP ICT HUMAN RESOURCES**
- **e-GOVERNMENT : DELIVERING CITIZEN SERVICES**
- **LEVERAGE ICT FOR ECONOMIC AND SOCIAL DEVELOPMENT**
 - Societal Applications and Content Development, Connectivity and Telecenters, Mass Media

Five – Year Strategic Action Plan 2003-2007

- What can be done quickly in the telecom sector to support ICT initiatives?
- Developing Sri Lanka's Software Industry
- Sri Lanka's e- Government Strategy and Implementation
- Other Project Possibilities for e-Government
- Bridging the Digital Divide: Initiatives for Societal Applications
- Reforming Sri Lanka's Mass Media Sector to promote the developmental thrust of the ICT Roadmap

Figure 2: **Sri Lanka's ICT Strategy: e-Lanka**

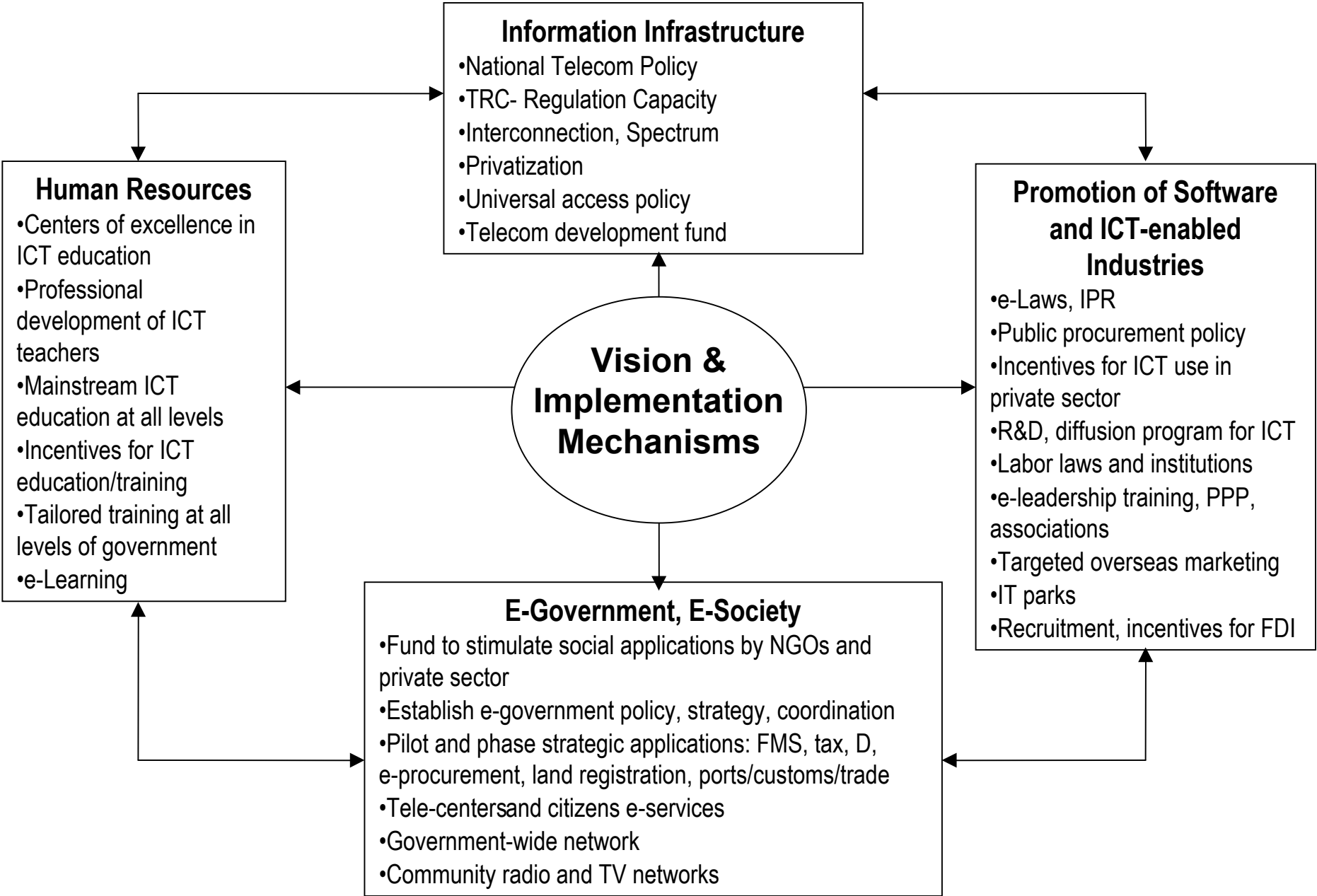
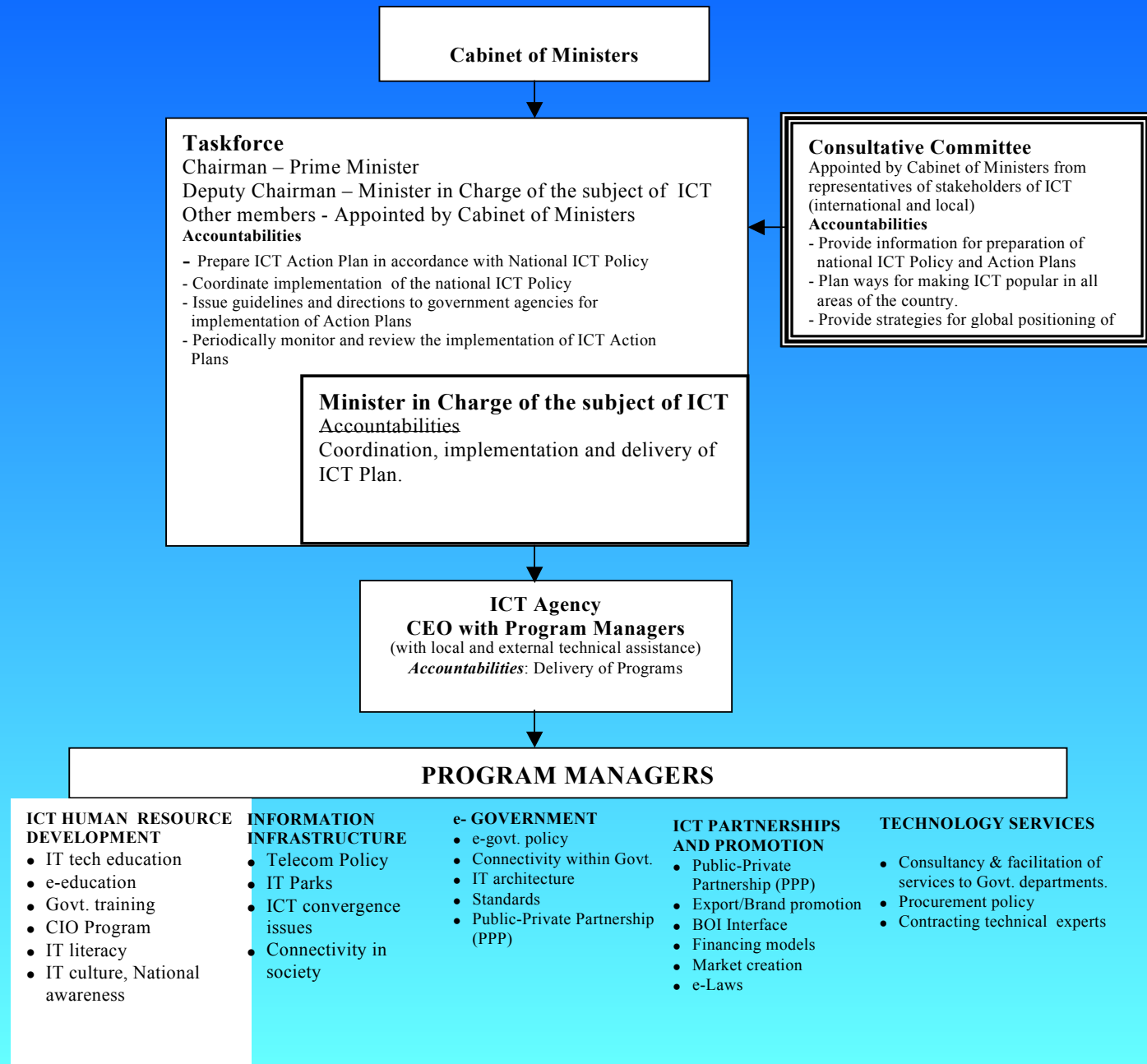


Figure 3 : **Organisation – ICT Policy Coordination and Plan Implementation**



ICT DEVELOPMENTS IN SRI LANKA																								
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
POLICY	IT POLICY															IT YEAR				E-SRI LANKA 2003-2007				
AGENCY		CINTEC																		NEW APEX ICT AGENCY				
S/W DEV																		IT PARK						
LEGAL			IT LAW COMMITTEE									IT LAW												
BANKING	ACH																							
EDN	CS DEPTS																	IT EDN YR		E-LEARNING				
COMMERCE			EDI DEVELOPMENT											EDI COMM				E-COMMERCE						
LANGUAGE			LOCAL LANGUAGE DEVELOPMENT																	UNICODE				
INTERNET									INTERNET				SL-NIC											
GOVT		CINTEC PS COMMITTEE									PASSPORT		WWW.LK		GOVT INTRANET				GDLC					
TELECOM	MOBILE INTRODUCED														PRIVATISED				LIBERALISED					
RULING PARTY																								

AN EXAMPLE OF AN INTEGRATED NATIONAL PROJECT

THE PROPOSED PEOPLE DATABASE

- **DATA INPUT AT BIRTH REGISTRATION**
- **ISSUE OF NIC NUMBER AT BIRTH**
- **ISSUE OF NIC AT 16**
- **RECORD OF MARRIAGE**
- **ISSUE OF PASSPORT**
- **RECORD OF DEATH**
- **OTHER USES INCLUDE HEALTH, EDUCATION ETC.**
- **CAN BE DONE WITHOUT HARMING EXISTING INSTITUTIONAL STRUCTURE**

SARVODAYA TELE CENTERS FOR RURAL COMMUNITIES

- **A small unit equipped with ICT equipment; computers, printer, telephone, fax, photocopy machine, laminating machine, scanner, digital still camera, internet and e-mail.**
- **ICT services and training are made available at these units by trained 'local operators' at a nominal charge to ensure sustainability.**
- **All Tele-centers are located at rural townships where basic infrastructure facilities (telephones, electricity, road access, buildings) are available.**
- **Sarvodaya District Centers, accommodate the Tele-centers. They are the central coordination points to a spectrum of community development activities.**
- **With the lessons learned from the pilot project (2000), Sarvodaya has progressed to establish a total of seven Tele-centers serving over 1000 villages, in 7 districts.**

VILLAGE INFORMATION CIRCLES

Village youth are given training on the 'Power of Information'. There are over 600 village information circles established in 15 districts. These village information circles are connected to the district Telecentre through a network of Human Interfaces

INFORMATION IS AVAILABLE ON:

the village,
transport services,
medical services,
education,
general knowledge,
community health,
Sarvodaya activities,
telephone numbers,
agriculture,
environmental protection,
Politics,
legal services,
job opportunities,
drug abuse,
Banks, Hospitals, Insurance,
postal service etc...

PARTNERS IN PROGRESS

University of Colombo School of Computing (UCSC), Ceycom Global Communications Ltd., NOVARTIS Foundation, NIPPON Foundation

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

- **AN INDEPENDENT CENTRE WITHIN THE UNIVERSITY OF COLOMBO**
- **ESTABLISHED IN 2002 BY THE MERGING OF TWO INSTITUTIONS WITHIN THE UOC**
- **PROFESSIONAL STAFF OF OVER 50**
- **UNDERGRADUATE (120/YR) & POSTGRADUATE(200/YR) COURSES**
- **COURSES FOR OTHER FACULTIES**
- **EXTERNAL DEGREE IN IT (5,000/YR)**
- **THREE CS BASED ACADEMIC DEPTS**
- **FIVE CENTRES (Advanced Digital Media Technology, E-Learning, Computing Services, External degrees and Professional Development)**
- **RESEARCH & DEVELOPMENT**
- **REGIONAL PROGRAMS FOR PARTICIPANTS FROM ASIA & AFRICA**

CONCLUSIONS

- **SRI LANKA IS STILL “EXPERIMENTING” IN DIGITAL GOVERNMENT**
- **THIS IS A GOOD CASE STUDY FOR MANY DEVELOPING COUNTRIES**
- **INDEPENDENT RESEARCH ON THE PAST & FUTURE PROGRESS INCLUDING IMPACT WOULD BE MOST USEFUL**
- **THIS COULD BE FOLLOWED BY REGIONAL TRAINING IN DIGITAL GOVT.**
- **NCDG MAY FIND THIS A SUITABLE CHALLENGE**

Thank You!

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