



Japan-Myanmar cooperation opportunities in ICT sector in Changing Myanmar



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Introduction to Myanmar



Point of Strategic Importance : Located in the northwest of the Indochina Peninsular in Southeast Asia, **Myanmar** is bordered by China, India, and ASEAN countries.

Area (sq km) : 676, 552 km²
Capital City : Naypyidaw
Population : 60 million
Languages : Myanmar
Climate : tropical monsoon
Monetary unit : Kyat
Internet domain : .mm





Messages



- Myanmar is really changing
- Myanmar is driving for socio-economic development and needs quick wins.
- It is recognized that ICT is vital for socio-economic development
- ICT is an important enabler for development of all socio-economic sectors
- ICT can be an Industry contributing GDP, Export and employment.
- Foreign assistance, cooperation, collaboration is needed.
- Myanmar welcomes FDI but it must benefit for the State and Citizens
- Japan has all the resources to become the main player
- Japan-Myanmar cooperation will benefit both country considerably.



Is Myanmar really changing? The Answer is YES.



Politics

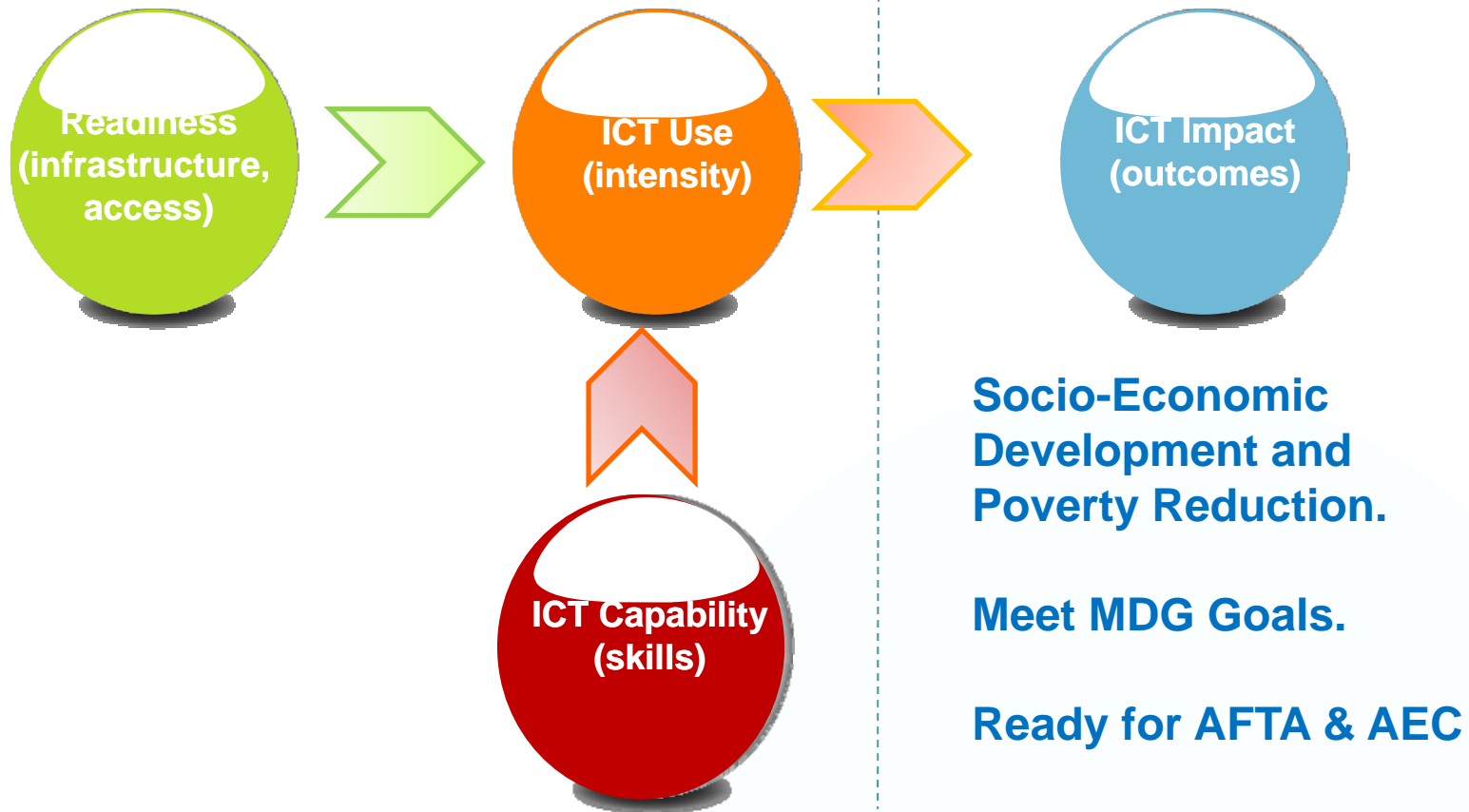
- Improved democratic practices
- Balancing of the three branches of power is really happening
- Good working relation between Government & Opposition
- Freedom of Media
- Sanctions lifted or suspended

Economics

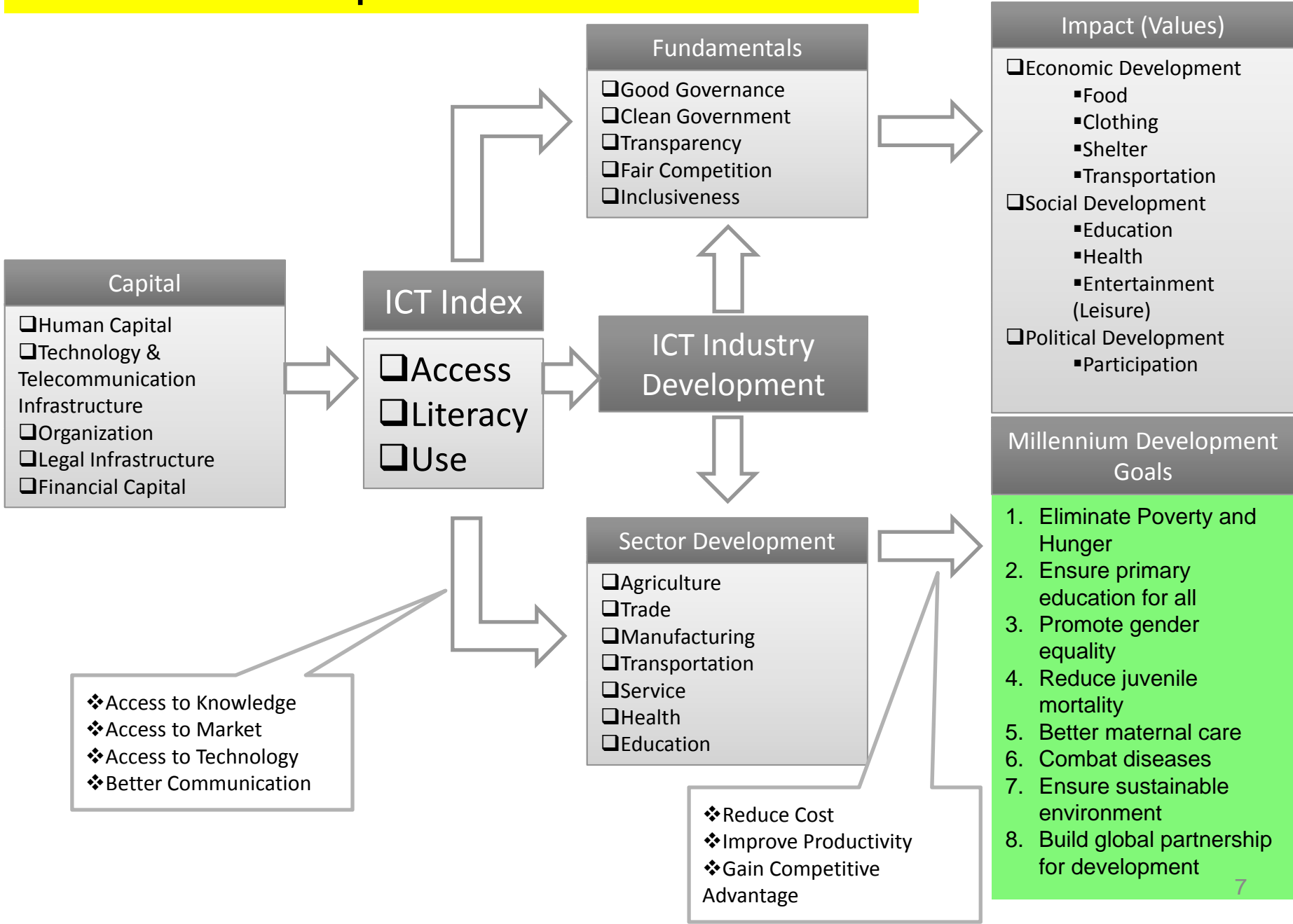
- Improving Legal Framework
- Improving the Infrastructure
- Creating conducive environment for Foreign Investment
- Privatization and Liberalization



ICT for Development ITU Framework

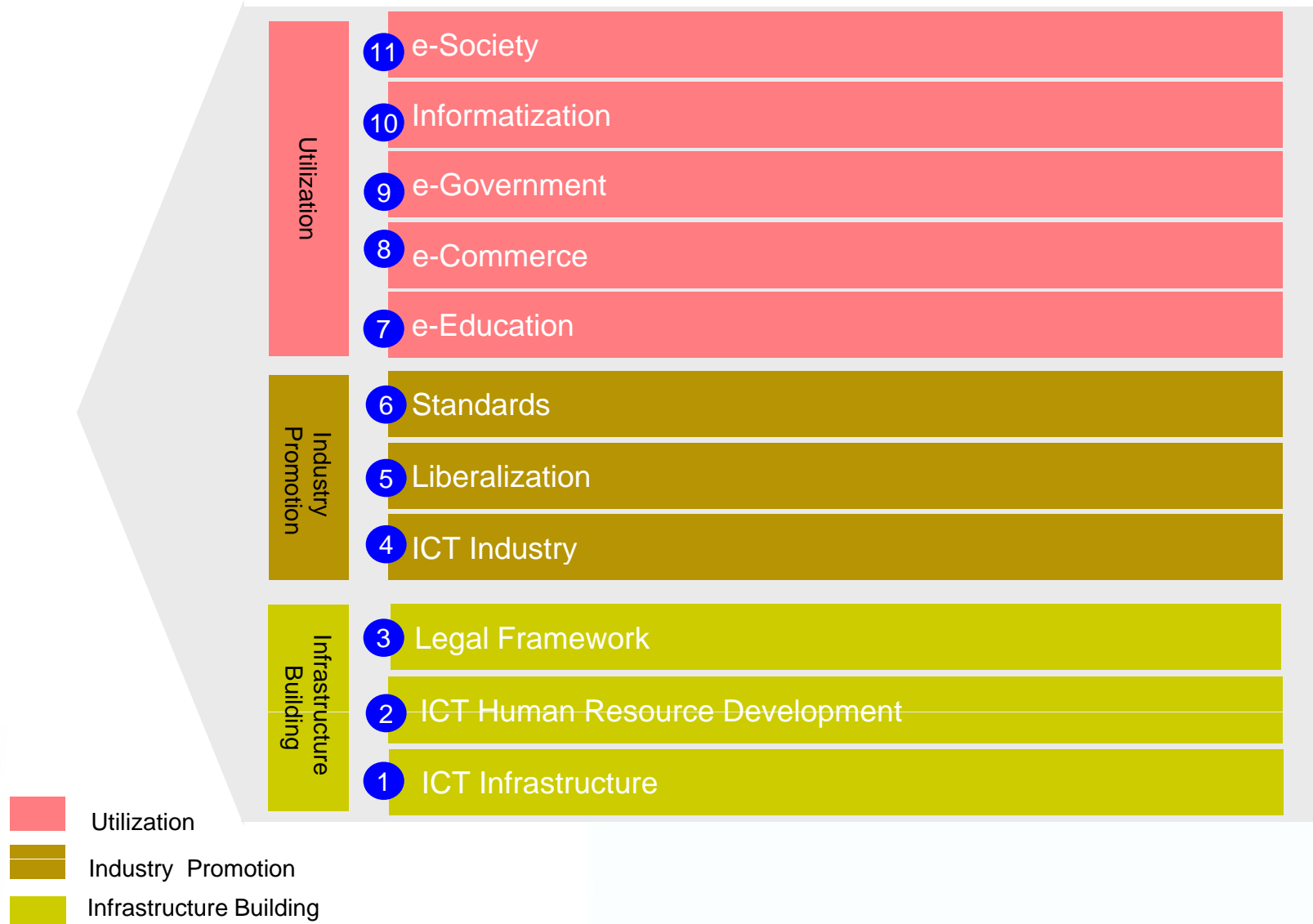


ICT for Development: The Framework





Focused Areas for ICT for development

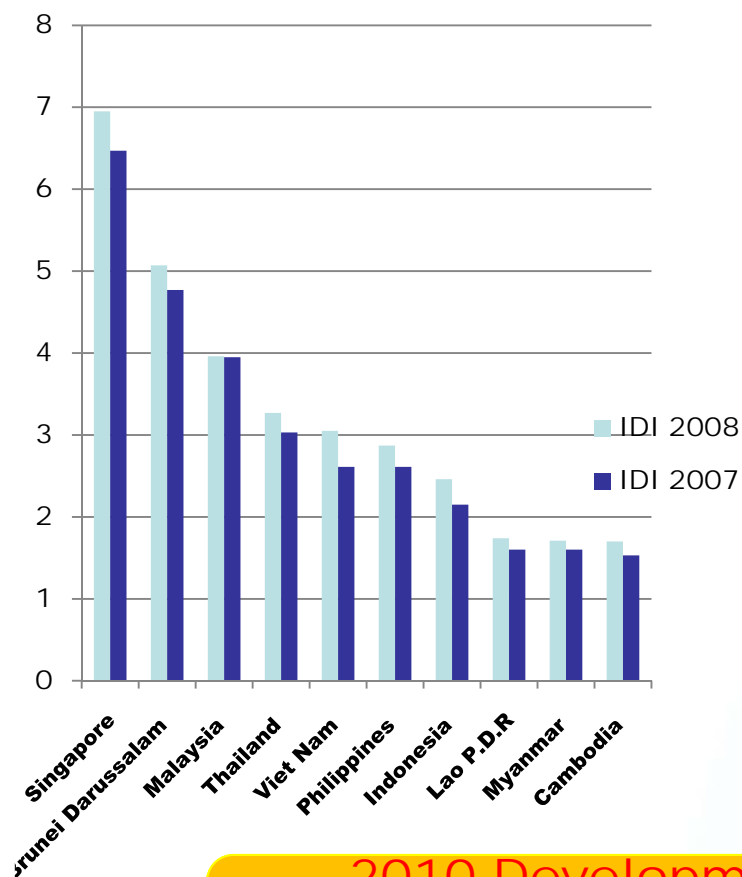


Source : MCF



The Status:

ICT Development Index 2008 & 2007



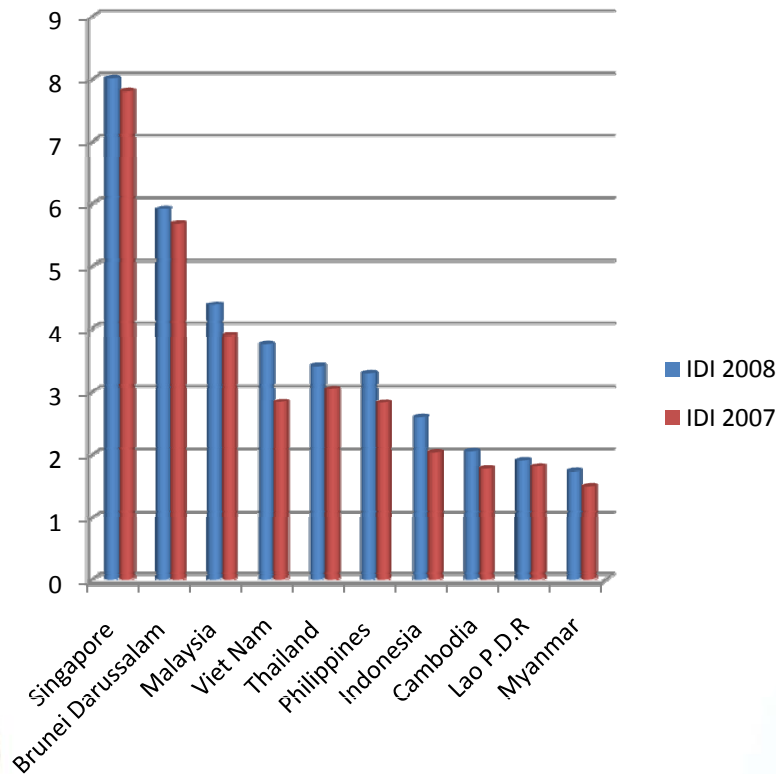
Economy	Rank 2008	IDI 2008
Sweden	1	7.85
Singapore	14	6.95
Brunei Darussalam	42	5.07
Malaysia	58	3.96
Thailand	76	3.27
Viet Nam	86	3.05
Philippines	90	2.87
Indonesia	107	2.46
Lao P.D.R	118	1.74
Myanmar	119	1.71
Cambodia	120	1.7

2010 Development index has already published but Myanmar Data is not included. May be Myanmar become lowest in ASEAN.

Source : ITU



IDI *access* sub-index, 2008



Economy	Rank 2008	IDI 2008
Hong Kong	1	8.82
Singapore	10	8.02
Brunei Darussalam	43	5.92
Malaysia	62	4.38
Viet Nam	72	3.76
Thailand	80	3.41
Philippines	86	3.3
Indonesia	106	2.6
Cambodia	118	2.06
Lao P.D.R	121	1.91
Myanmar	132	1.74

It is learnt that Myanmar teledensity will reach 50% by the end of 2015. It may be a challenging job. If fulfilled, Myanmar's ranking may go up.



National Backbone Fiber Transmission Route



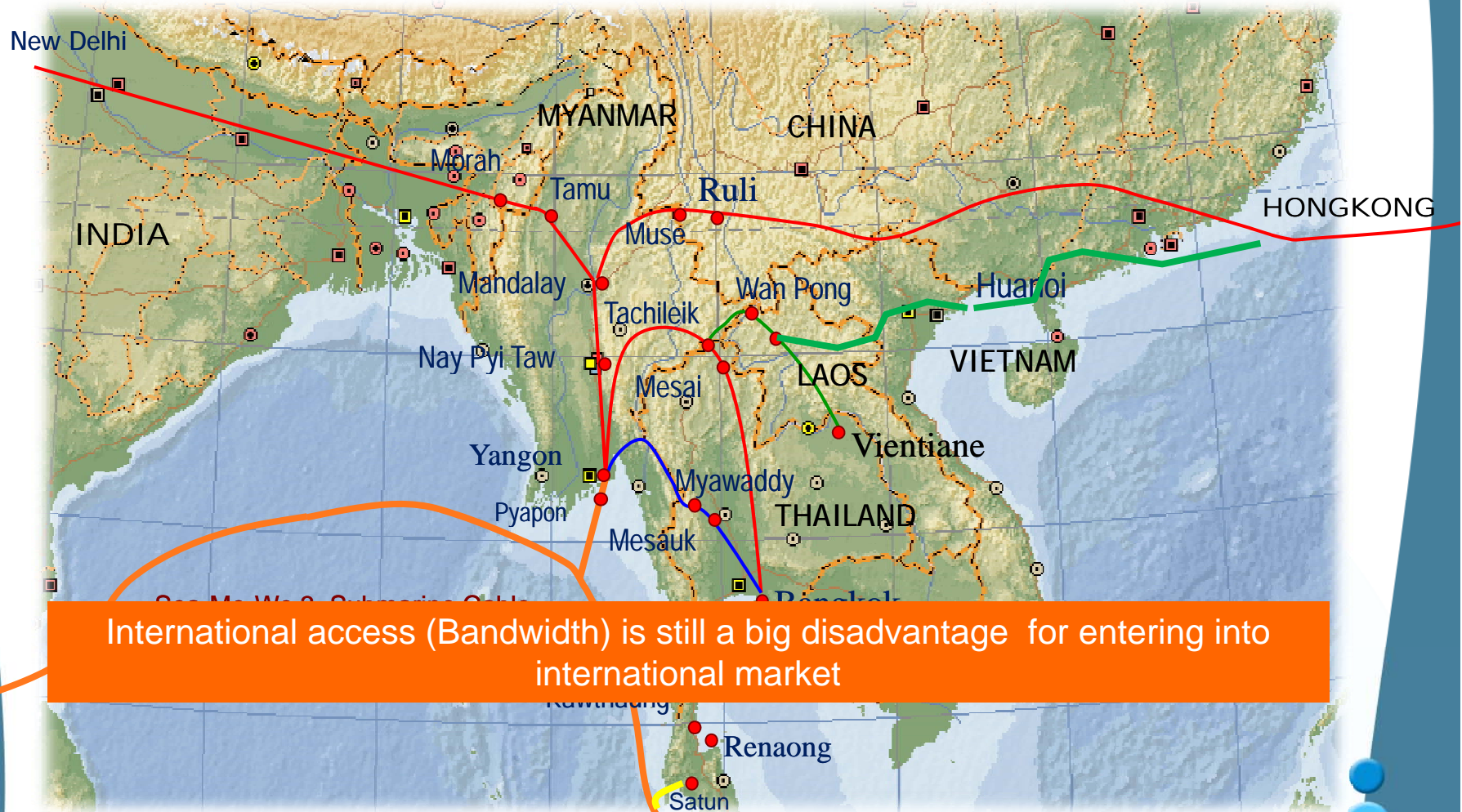
Source : MPT

	Total FOC	8,911.00 M, 14,338.00 Km
	Completed FOC	6,545.00 M, 10,531.00 Km
	Under Construction	385.00 M, 619.00 Km
	To be Constructed	1,086.00 M, 1,747.00 Km
	Future Plan	895.00 M, 1,440.00 Km

There is good progress in this effort.



International Access



International access (Bandwidth) is still a big disadvantage for entering into international market

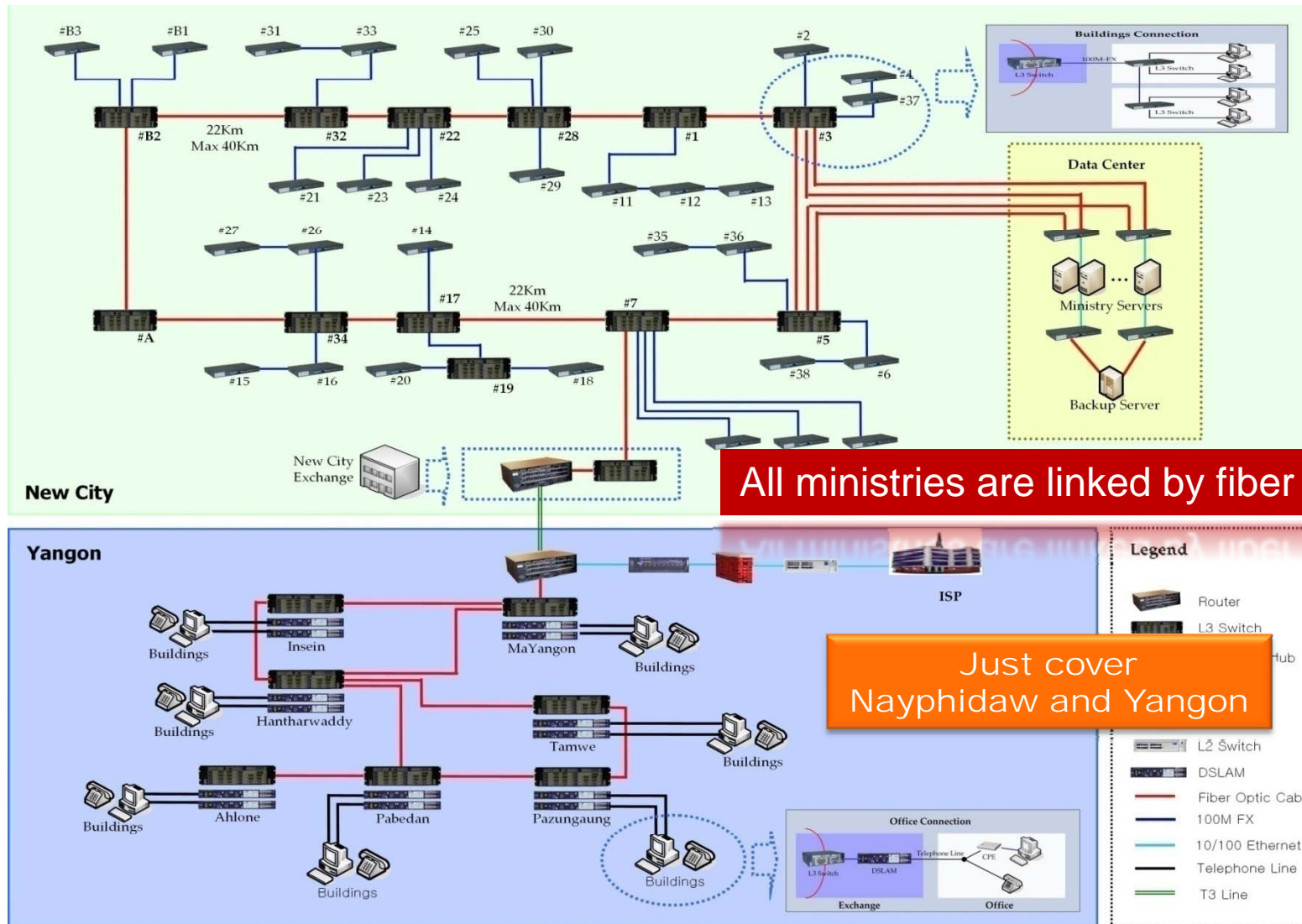
— Complete — Readiness — Ongoing

Source : MPT





e-Government Network Architecture



Source : MPT

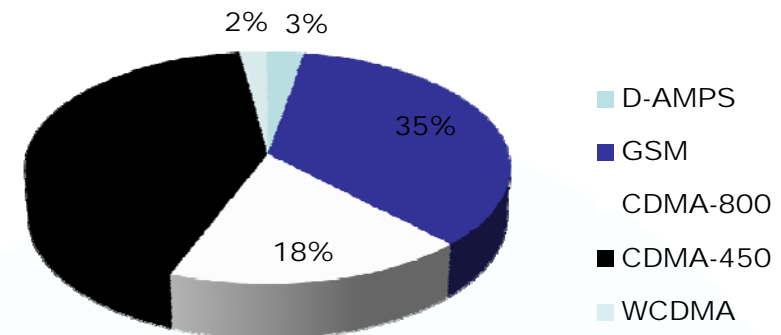


ICT Infrastructure - Myanmar Teledensity Basic Facts (March - 2012)



Population	60 Millions +
Total Telephone Lines	2,903,723
Fixed Lines	1,090,323
Mobile Phones	2,500,000
Teledensity	6% Target - 50% by 2015
Mobile Phone Systems	D-AMPS, GSM, CDMA 800, CDMA 450, WCDMA
Service Provider	1 (MPT)

Mobile Phone Systems





ICT Infrastructure – Myanmar

Internet Basic Facts (March – 2012)

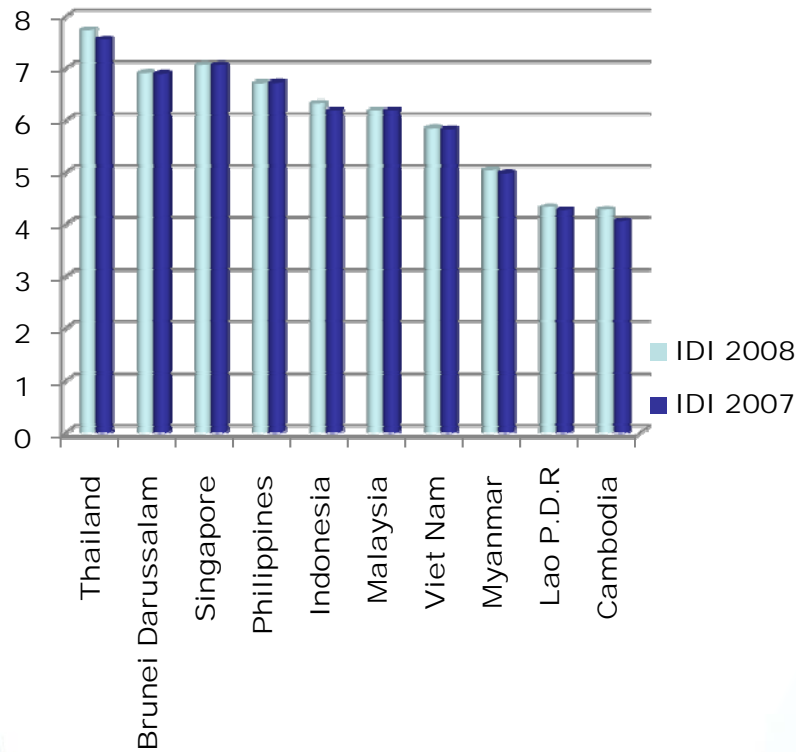


Service Providers	2
Internet Gateway	1
Total International Bandwidth	5 Gbps
Service Subscribers	50,000 +
Public Access Center	2,500
Estimated Users	500,000 +
Systems	Dial-Up, ISDN, ADSL, iPSTAR, WiMax, WLL, FTTx





ICT skills sub-index 2008 & 2007

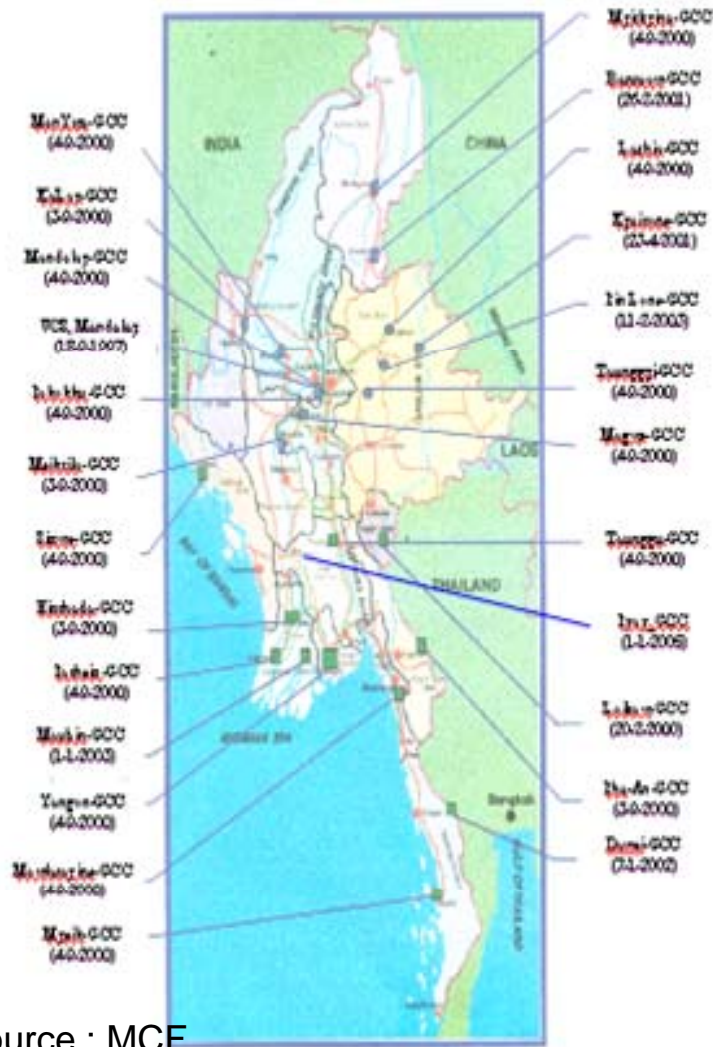


Economy	Rank 2008	IDI 2008	Rank 2007	IDI 2007
Korea (Rep.)	1	9.84	2	9.74
Thailand	52	7.74	52	7.56
Brunei Darussalam	78	6.91	75	6.9
Singapore	71	7.07	68	7.07
Philippines	83	6.72	82	6.73
Indonesia	95	6.33	99	6.19
Malaysia	98	6.19	98	6.19
Viet Nam	105	5.85	104	5.83
Myanmar	112	5.05	112	4.99
Lao P.D.R	120	4.33	120	4.27
Cambodia	121	4.28	125	4.06
Niger	159	1.36	159	1.34

ICT skill index is not bad for Myanmar. We may able to improve considerably if we give priority to e-Education and ICT HRD. Skill may be the deciding factor in the future.

Human Resource Development (2011-2012) Students intakes

25 Computer Universities and colleges in through out Myanmar

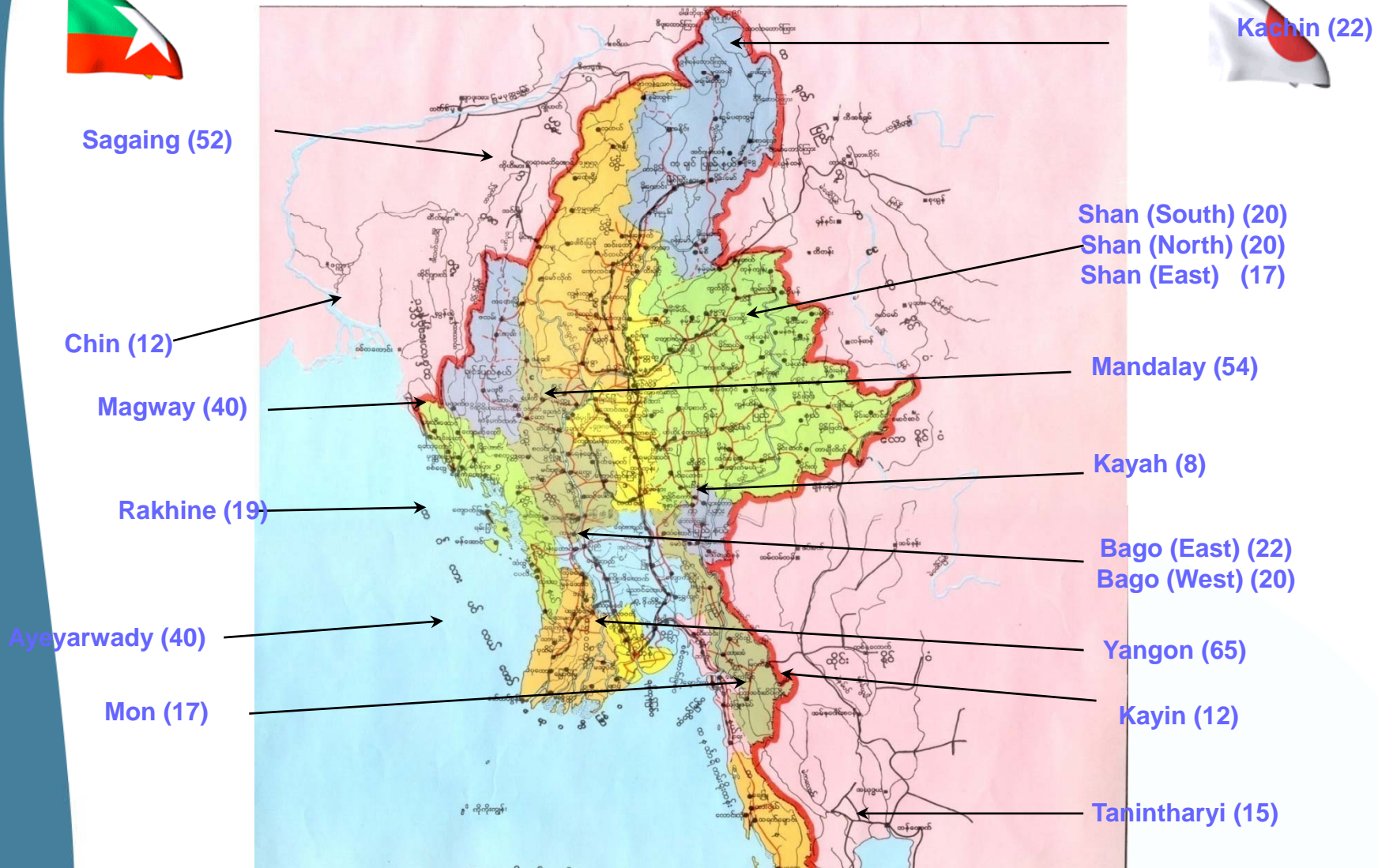


Type	B.C.Sc.	B.C.Tech	Total
Bachelor	21103	5495	26588
Honors	8447	1826	10273
Master	2337	535	2872
Ph. D	178	54	232
Total	32065	7900	39965

Private training institutions also provide certificate, ungraduate, post graduate courses.

Source : MCF

e-Education Learning Centres with VSAT or iPstar



Earnest effort started in 2000 but because of unfavorable situations the effort has to be stopped. In 2012, the Government set the policy to put ICT literacy in Basic Education but cannot implemented yet.

Source : MCF

Legal framework

Existing

- The Computer Science Development Law, 1996
- Electronic Transactions Law, 2004
- Telegraph Act, Wireless Telegraph Act, Wide Area Network Notification (to be substituted with new law)

Missing parts

- Telecommunications Law
 - missing fair competition, consumer protection, classification of service providers, communications committee, Protection of Network and Telecom Secret etc
- Informatization promotion (network building)
- Privacy protection

To be model

- To update the current Myanmar ICT laws
- To suggest the ICT legislation roadmap according to the present ICT situation and policy priority
- To update Foreign Investment Law to facilitate foreign investment on the ICT sectors

Myanmar ICT Legal Framework (Cyber law)

Informatization policy and law

- Informatization promotion
- Building infrastructure for ICT industry
- Information and communications network law
- E-commerce law
- Privacy protection

Communications policy and law

- Fair competition (better service creation)
- Consumer protection
- Classification of service providers
- ICT industry promotion (including SW industry)
- Telecom Commission

- The Computer Science Development law, 1996
- Electronic Transactions law, 2004
- Informatization Promotion Act
- IT Network Act
- Privacy Protection Act
- IT Infrastructure (Network) Protection Act
- Digital Divide Reduction Act

- Telecommunications Law (draft)
- Telegraph Act, 1885
- Wireless Telegraphy Act 1934 (to be repealed)
- Wide Area Network Notification, 2002 (to be substituted with new law)
- Software Industry Promotion Act
- Computer Program Protection Act
- Digital Contents Industry Promotion Act



ICT Industry Current Status



Co.s by Region/State	Companies
Yangon Region	357
Mandalay Region	82
Sagaing Region	37
Shan State	26
Ayeyarwady Region	16
Mon State	46
	564

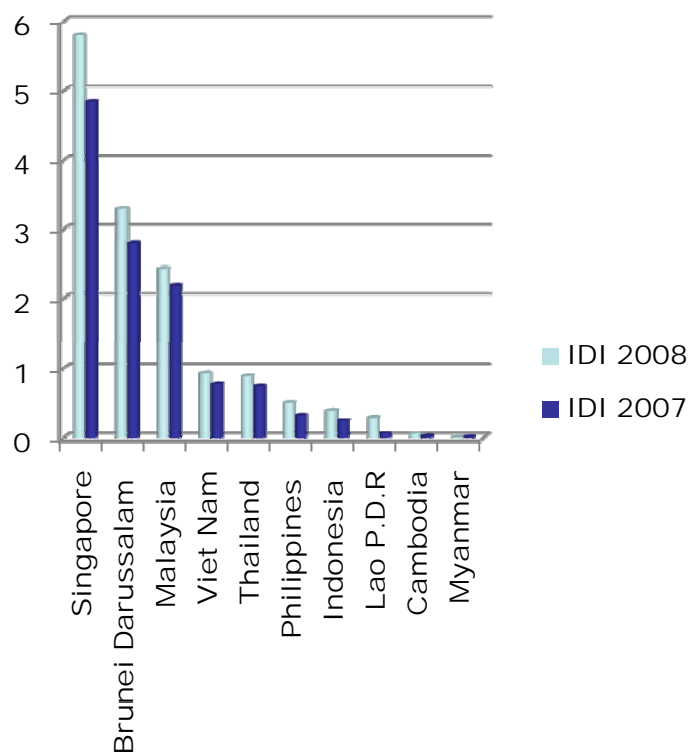
Type of Business	
Training	62
Software	63
Trading	10
Computer Books	2
Web & Internet Service	8
Network & Maintenance Service	5
Hardware	207
Total	357

PC Penetration	2006	2007	2008	2009	2010	Remark
Population	55.4	56.5	57	59.13	60	Million
Household						
Desktops	258,000	276,000	300,000	327,000	210,000	
Notebooks	172,000	184,000	200,000	218,000	390,000	
Total number of PCs	430,000	460,000	500,000	545,000	600,000	

Source : MCF



IDI use sub-index 2008 & 2007



Economy	Rank 2008	IDI 2008	Rank 2007	IDI 2007
Luxembourg	1	7.09	3	5.52
Singapore	5	5.81	8	4.84
Brunei Darussalam	36	3.29	31	2.8
Malaysia	44	2.43	42	2.18
Viet Nam	83	0.93	74	0.77
Thailand	86	0.89	78	0.74
Philippines	99	0.51	103	0.32
Indonesia	106	0.39	111	0.25
Lao P.D.R	116	0.29	141	0.06
Cambodia	145	0.06	154	0.02
Myanmar	159	0.01	159	0.01

We may still need to improve awareness that ICT is key for development and systematic efforts need to be invested.



ICT Price Basket and sub-baskets, 2009 & 2008



Rank	Economy	ICT Price Basket		GNI per capita US\$,2008(or latest available year)
		2008	2009	
3	Singapore	0.33	0.41	34760
46	Malaysia	1.65	1.93	6970
88	Thailand	4.15	3.25	2840
98	Indonesia	5.81	7.65	2010
113	Philippines	9.25	10.68	1890
114	Viet Nam	9.34	11.9	890
137	Lao P.D.R	37.24	38.09	740
145	Cambodia	41.86	43.01	600
159	Myanmar	58.18	N/A	220

Myanmar is the country whose citizen need to use highest percentage of their income to have access to ICT.

Source : ITU

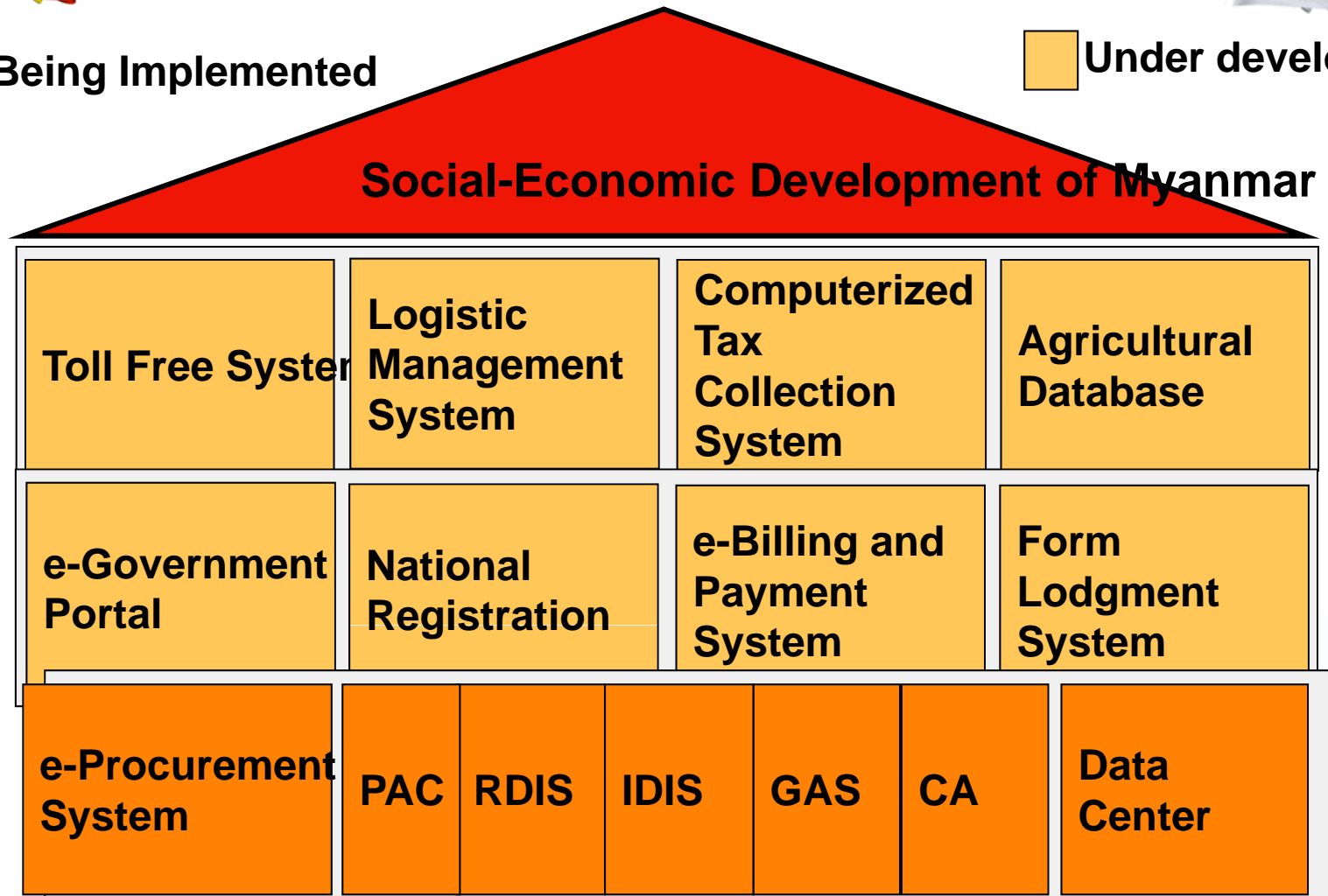


e-Government efforts



 Being Implemented

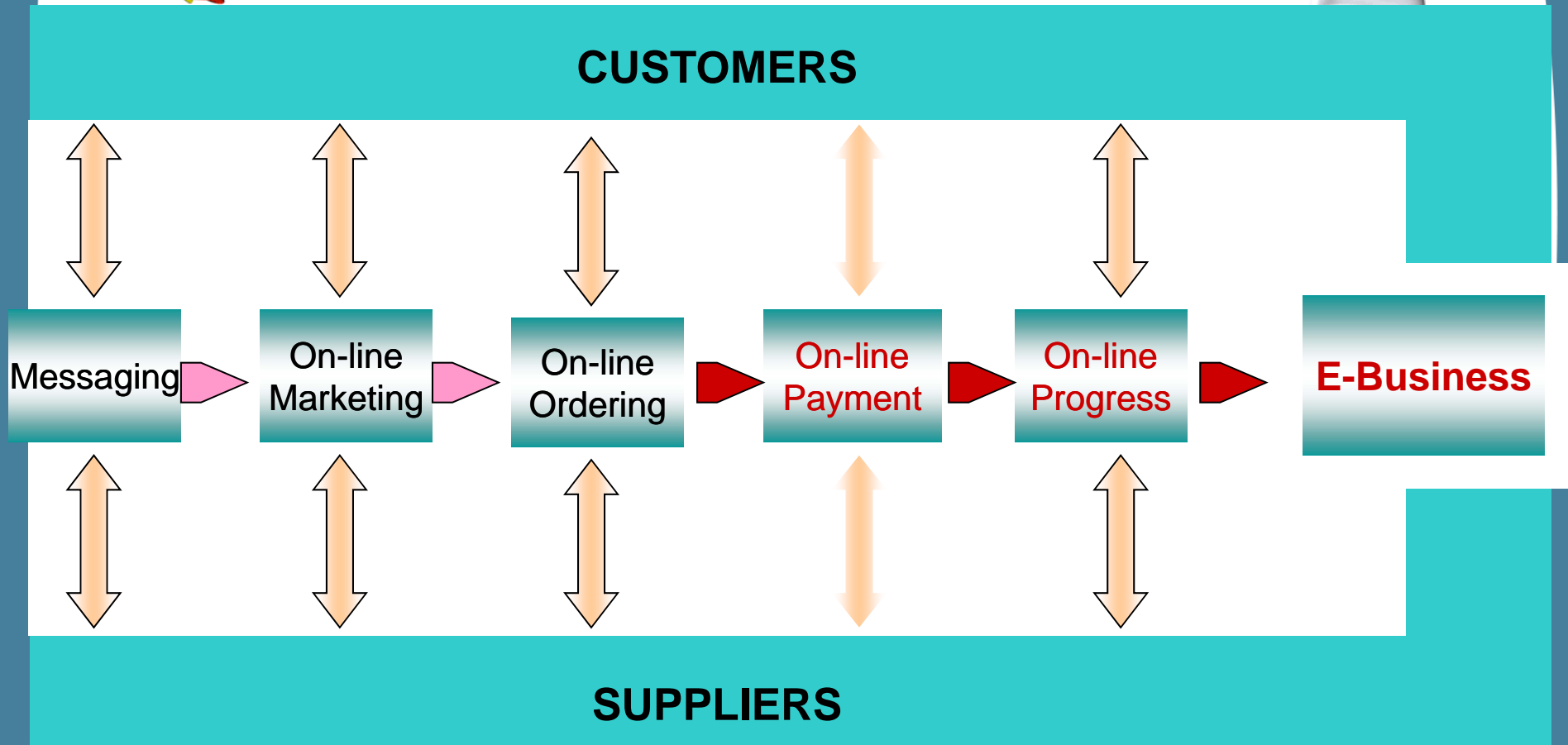
 Under development



**Most of the projects are not systematically developed, implemented, maintained.
Most are not efficiently and effectively operational.**



E- Commerce development



Just starting.

A few on-line ordering.

Mostly messaging and web advertising

No on-line payment; Coming soon



ICT Application : Status



- Public sector is lagging behind private sector
- e-Government at the initial stage
- Increasing effort on development of e-Commerce systems but weak infrastructure, and lack of payment, logistics and legal systems make it impossible to pick up.
- Trading :Only big supermarkets, Hotels use IT
- Finance :Private banks are ahead of public banks
- Manufacturing :Use only in traditional data processing areas
Little use of CAD,CAM,MRP,ERP
- Education :Started well but can not maintained
- Health :Starting with medical education
Private clinics are ahead of public hospitals
- Regional :Concentrated only in Yangon and Mandalay



What Myanmar is aiming for?



Infrastructure

- Construct a reliable ICT environment to facilitate an enabling industrial base to strengthen ICT utilization capability
- To achieve 50% of teledensity by 2015 (1550)

ICT HRD

- Provision of qualified ICT Professionals to support Industry & application areas

ICT Industry

- Establish a solid ICT industrial base not just to provide services to local industries but also to become an international outsourcing destination.

Liberalization & Standardization

- Generate a Market Evolution compatible with the Global Standard
- Initiate the Market Growth by Systematic Reform

E-Education

- Realizing the Inclusive e-Myanmar Society by expanding education opportunities



What Myanmar is aiming for?



e-Government

- Construct a reliable ICT environment to facilitate to improve government administration and providing information services to citizens, businesses, investors and any other stakeholder.

E-Commerce

- To create an ICT environment in which e-Commerce flourished.

Informatization of businesses

- To provide necessary support and create an environment so that business can use ICT to enable to compete in rapidly changing and highly competitive environment.
- To assist in Planning, development, Implementation, operation, maintenance of information systems.



Analysis of Myanmar ICT Environment



Strength	Weakness
<ul style="list-style-type: none">-Irreversible change to democracy and market economy-The govt. awareness of the role of ICT- High demand in ICT services- High return of telecom services- Increase in number of well-educated human resources-Relatively cheap labor cost- Promotion of e-awareness through Media	<ul style="list-style-type: none">-Public's lack of ICT knowledge-No official national ICT strategy-Limited and unstable telecom infrastructure- Govt. is both regulator and operator- Inadequate Legal framework- Low level of technology and R&D-Weak ICT industry base and lack of govt. support to ICT industry-Bottleneck from basic infrastructure: electricity, transportation, etc.- Incompetent ICT human resources- No special incentive for ICT Industry or use
Opportunity	Threat
<ul style="list-style-type: none">-New administration with new ICT policy direction-Improving international cooperation environment-Gradual growth in S/W and ICT services industry-Strengthening regional cooperation with ASEAN, Japan,China, India, Australia-Government and private sector's willingness to invest on informatization-Increasing demand for ICT outsourcing	<ul style="list-style-type: none">-Intense competition from neighboring countries-Instability and low efficiency in macro economy-Weak financial industry-Limited foreign investment due to sanctions-Outflow of ICT human resources to foreign countries (Singapore, Thailand, etc.)



Action Items in Major Sectors



1 ICT Infrastructure

- ▶ Demand Forecasting for T & B
- ▶ R&D Center for ICT Security
- Tariff policy
- Network Migration roadmap
- Proactive ICT Infrastructure Construction
- Promotion of ICT HRD for professional
- Public Protection and Disaster relief
- Establishment of network Management Center
- ICT Standardization for the protection of Local Industry & Expansion of Business Opportunity
- Establishment of network provider

2 ICT Industry

- Mid-long term plan for supply of S/W development engineers
- Establishment of S/W support center
- Policies to enlarge R&D investment and facilities
- Increase outsourcing demand of government, public projects
- Establishment of tax reduction and financial support plan
- Strengthening activities of related agencies
- Provision of benefits to the firms in the ICT industry zone
- Supporting policy of start-up for the ICT business
- Reduction of Quantitative Restrictions and Barriers
- Implement measure to promote FDI
- Strengthening the economic cooperation via international organizations and bilateral cooperation channel

3 ICT HRD

- Develop the ICT network of University
- Set up model schools for ICT
- Industry-University coop. program for R&D Collaborations
- Set up a National Research Center/HRD Center for ICT
- Establish a international cooperation network between Myanmar & Foreign ICT University
- Set up national level certification programs
- Set up digital libraries that connect all other Universities
- Regional positioning activities as S/W and ICT services outsourcing center for neighboring countries
- Improve localization prog.

4 e-Education

- Production and Distribution of the booklets for promoting information culture
- Refresh laws and rules for acceleration of e-Awareness
- Incorporation of ICT training into school curriculum
- ICT Teacher Training Program
- Development of Textbook & Contents for ICT training
- Refresh Laws and Rules for Promotion of Digital Literacy
- Establishment of a National Agency in Charge of the Promotion of Digital Literacy



Do Changes in Myanmar and Myanmar present situation create Opportunities for Japan?

The Answer is YES.

There are many advantages for Japan to seek the opportunities but there also many challenges Japan has to overcome.





Opportunities in Myanmar for Japan



Myanmar Attractiveness

- Strategically Located between China, India & ASEAN
- Significant Market of 60 Million People
- Young and Dynamic Work Force
- Untouched Natural Environment and Historical Significance for Tourism
- Agricultural Fertile Lands
- Natural Resources

Changes in Strategic Elements

- New Democratic Government
- Dedicated, Open Minded and People Oriented Head of State & Influential Public Leader working together
- Significant Improvements in Rule of Law and National Reconciliation
- Significant Improvement s in International Legitimacy
- Commitment to ASEAN (AFTA, AEC, ASEAN Chair, SEA games, etc)

Cooperation for mutual benefits

**Myanmar
Problems & Weakness**

- Weak Infrastructure
- ICT HRD quality
- Awareness
- Cyber Law
- Technological know-how
- Job Creation
- Entering international Market
- Financial resources

**Japan
Problems & Weakness**

- Demography
- Shortage of ICT HRD
- High cost
- Legacy Systems
- Req. New Applications
- Language
- Politics
- Culture

- **Technical Transfer**
- **Financial Assistant**
- **Consultation**
- **Outsourcing**
- **Investment**



- **Outsource Human Resource**
- **Link to ASEAN**
- **Globalization**

Advantages



- Technology Transfer
- Know-How and Experiences
- ICT use
- Job Creation
- High Income
- Growth in ICT industry
- Increase Competitiveness of Myanmar



Advantages

- Cost Saving
- Extension of Working Hours
- Overcome Manpower shortage
- Investment Opportunities
- New Market



Advantages and Challenges for Japan



Advantages

Social Capabilities	Technical Capabilities	Financial Capabilities
<ul style="list-style-type: none">• Strong Long Term Relationship between two countries• Cultural Compatibility between Japan and Myanmar• Myanmar's Confidence in Japanese Quality, Ethics and Long Term Commitment	<ul style="list-style-type: none">• Japanese World Leading Technologies• Systematic Business Processes	<ul style="list-style-type: none">• Financial Strength to invest in Long Term Business Prospects

Challenges

Relating Japan itself	Threats from competing countries	Relating to Myanmar
<ul style="list-style-type: none">• Too much inside looking• Inability to make quick decisions to grasp opportunities present• Too much time in feasibility studies• No government led combine efforts	<ul style="list-style-type: none">• Quick decision making• Willing to commit investment quickly• Can start projects quickly• Full government support	<ul style="list-style-type: none">• Weak Infrastructure• Shortage of Skilled Labor• Language Barrier• Complicated Bureaucratic Processes• Finding reliable Business Partner



How Japan can become main partner



Inclusive Social Economic Development & Poverty Reduction



Necessary Outcome	Productivity		Quality Products		Good Service	
Potential Sectors	Agriculture	Mining Oil/GAS	Forestry	Life Stock & Fisheries	Finance & Service	Manufacturing Trade
Enabling Environment	Legal Framework	HRD	Logistic	Telecom Infra	Electricity	Capital Investment
Basic Elements	Human Rights	Good Governance	Clean Governance	Transparency	Fair Competition	Inclusiveness

- Bring in Japanese Technology Knowhow, Work Ethics and Quality Consciousness
- G2G encouragement and assistance to improve Capabilities for Governance
- Share experiences and good practices in building a good legal framework
- Assistance in HRD (Japan – Myanmar Center)
- Assistance in Infrastructure Building (Invest in Infrastructure Projects)
- Creation of Investment Funds to assist Japanese Co. coming into Myanmar
- Find opportunities in interested Sectors and conduct feasibility studies **quickly**
- Find good partners and build good relationship **quickly**





Conclusion



- We expect that this presentation make you to have better understanding of opportunities in Myanmar.
- Create the impetus to invest concrete efforts for improving cooperation between Japan and Myanmar in ICT for mutual benefits
- We hope that Japan has better understanding of its challenges and prepare for them.
- We also hope that the recommendations we may able to develop will help to have good ideas where they should invest and how .



THANK YOU