Utilization of ICT for Enhancing Statistical Business Process in ASEANstats

Anang Laksono
The ASEAN Secretariat

Seminar on Utilization of ICT for Official Statistics
Chiba, 13 December 2019

ASEANstats

Outline of the presentation

- Overview of ASEAN Community Statistical System (ACSS)

- Roles of ASEANstats

- ICT for Enhancing Business Process

- Issues, Challenges and Opportunities

- Way Forward

ASEAN Community Statistical System

- ✓ partnership between national statistical systems of ASEAN Member States, ASEAN Community Councils and ASEAN Secretariat (ASEANstats)

- ✓ a call for united and concerted efforts toward building a system that will <u>facilitate the collection, production, dissemination and communication of ASEAN statistics in support of a rule-based ASEAN Community</u>.

Major Partners of ACSS

1. **ACSS Committee** as the highest regional policy making and coordinating body on ASEAN statistics → with members: Chief Statisticians or Heads of NSOs of all ASEAN Member States (AMSs), and Head of ASEAN Statistics Division (ASEANstats).

2. **National Statistical Systems** of all AMSs, with NSO as country focal point on ASEAN statistics.

3. **ASEAN Secretariat** through Statistics Division (**ASEANstats**) as the regional focal point of ASEAN statistics and the technical arm and member/secretariat of the ACSS Committee.

4. **ASEAN Community Councils**, thru its ASEAN bodies, as the primary stakeholders → provide guidance on data needs and strategic directions for statistical development in ASEAN Community.

ACSS Strategic Plan 2016-2025 (ASEAN RSDS)

Vision and Mission of ACSS:

→ **Vision:** "A responsive ACSS providing high quality statistics".

→ **Mission**: ACSS will provide relevant, timely and comparable ASEAN statistics in support of evidence-based policy and decision making, and enhance the statistical capacity of the Member States and ASEAN Secretariat.

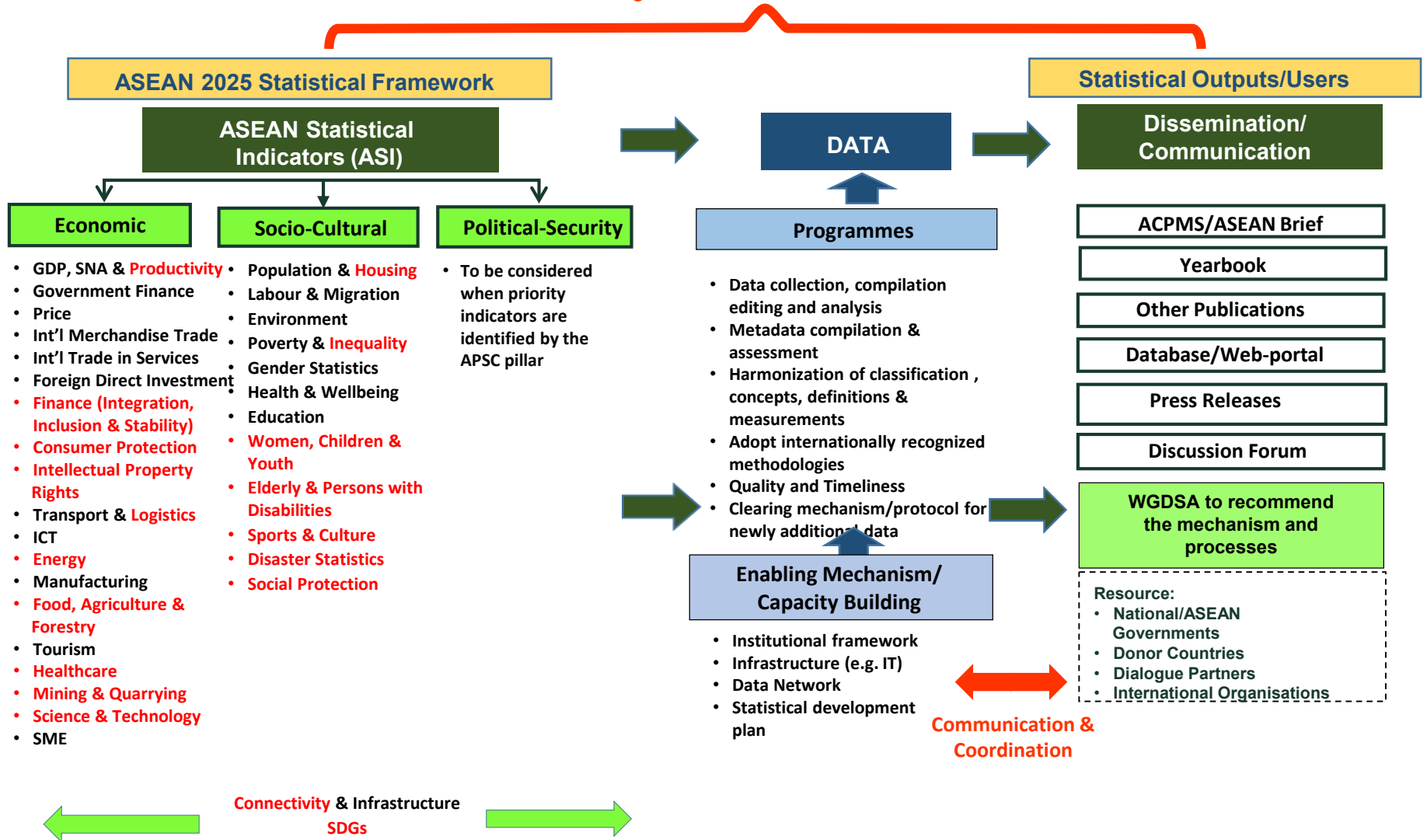## 4 major components (main strategic objectives):

1. Institutional strengthening, enhancement of ACSS and its sustainability;

2. Improvement of response to greater ASEAN data needs;

3. Enhancing the dissemination, communication, visibility and use of ASEAN statistics;

4. Bridging the gaps toward sustainable development of ASEAN statistics.

ASEANstats

Broad Framework for Sustainable Development of ASEAN Statistics (BFSDAS)

Major Stakeholders

ASEAN 2025 Statistical Framework

ASEAN Statistical Indicators (ASI)

Statistical Outputs/Users

DATA

Dissemination/Communication

Economic	Socio-Cultural	Political-Security

Economic
- GDP, SNA & Productivity
- Government Finance
- Price
- Int'l Merchandise Trade
- Int'l Trade in Services
- Foreign Direct Investment
- Finance (Integration, Inclusion & Stability)
- Consumer Protection
- Intellectual Property Rights
- Transport & Logistics
- ICT
- Energy
- Manufacturing
- Food, Agriculture & Forestry
- Tourism
- Healthcare
- Mining & Quarrying
- Science & Technology
- SME

Socio-Cultural
- Population & Housing
- Labour & Migration
- Environment
- Poverty & Inequality
- Gender Statistics
- Health & Wellbeing
- Education
- Women, Children & Youth
- Elderly & Persons with Disabilities
- Sports & Culture
- Disaster Statistics
- Social Protection

Political-Security
- To be considered when priority indicators are identified by the APSC pillar

Programmes
- Data collection, compilation editing and analysis
- Metadata compilation & assessment
- Harmonization of classification, concepts, definitions & measurements
- Adopt internationally recognized methodologies
- Quality and Timeliness
- Clearing mechanism/protocol for newly additional data

Enabling Mechanism/ Capacity Building
- Institutional framework
- Infrastructure (e.g. IT)
- Data Network
- Statistical development plan

Statistical Outputs/Users
- ACPMS/ASEAN Brief
- Yearbook
- Other Publications
- Database/Web-portal
- Press Releases
- Discussion Forum

WGDSA to recommend the mechanism and processes

Resource:
- National/ASEAN Governments
- Donor Countries
- Dialogue Partners
- International Organisations

Communication & Coordination

Connectivity & Infrastructure SDGs

ASEAN Statistical Indicators – Consolidated Template (ASI-CT)

- Macroeconomic
- Trade in goods
- Trade in services
- International investments
- CPI and PPI

- Production
- Industrial output
- Government finance
- SDG indicators
- Social and demography

> 700 indicators

ASEANstats

ACSS Sub-Committee & Working Groups

- Sub-Committee on Planning and Coordination (SCPC)

- Working Group on International Merchandise Trade Statistics (WGIMTS)

- Working Group on International Investment Statistics (WGIIS)

- Working Group on Statistics of International Trade in Services (WGSITS)

- Working Group on System of National Accounts Statistics (WGSNA)

- Working Group on Sustainable Development Goal Indicators (WGSDGIs)

- Working Group on Data Sharing, Analysis, Dissemination and Communication of ASEAN Statistics (WGDSA)

Roles of ASEANstats

ASEANstats as technical arm and secretariat of the ACSS Committee

- Initiate the formulation and lead the implementation and monitoring of statistical policies, methodologies and standards for the harmonization of ASEAN statistics

- Support NSS in the implementation of policies and standards for ASEAN statistics

- Serve as the link between ACSS Committee and ASEAN Community Councils and establish partnership with other stakeholders, including international and regional organisations

- Undertake the compilation of ASEAN statistics, administer ASEAN Statistics Database, and develop statistical products and services to disseminate and communicate ASEAN statistics

- Coordinate with donor community for possible technical assistance and funding of statistical capacity building programmes for the regional priorites by ACSS Committee

Personnel

2 Senior Officers

5 Technical Officers

1 General Staff

1 Adm Staff

ASEANstats

ICT for Enhancing Business Process in ASEANstats

GSBPM

- Specify Needs
- Design
- Build
- Collect
- Process
- Analyse
- Disseminate
- Evaluate

ASEANstats

ICT for Enhancing Business Process in ASEANstats

Web-centered business process

ACSS and ASEANstats Resources

eBooks + documents + Infographics

+

Photos/Videos + Events + data

Websites

1. aseanstats.org
- eBook, infographics, photos/videos, events, public docs

2. data.aseanstats.org
- Data

3. wg.aseanstats.org
- Private ACSS and WGs documents

4. dtt.aseanstats.org
- For AMS to submit data to ASEANstats

ASEANstats

The roles of ASEANStats Websites

Center of resources

Dissemination

Promote quality

Enhance the visibility of ASEAN regional statistical cooperation through the ACSS

ASEANstats

ICT for Enhancing Business Process in ASEANstats

ASEANstats Database Flow

Data Collection	Data Processing and Analysis	Data Dissemination

Intranet Access

ASEAN Internal Division

EuroTrace
Desktop Application (VB)

Data Upload
Tourism, Transport

Publications (Printed / Ebook)
https://www.aseanstats.org/ebooks/

Data Replication

IMTS, FDIS, SITS

Internet Access (Cloud Server)

ACSS Working Groups

CSV   .DBF

dtt.aseanstats.org

Data Upload
Other Hundreds of Indicators

Data Visualization & Infographics
https://data.aseanstats.org/dashboards
PowerBI, PiktoChart

SQL Server
Connection

Microsoft® SQL Server®

Main Database Server and API Portal
https://db.aseanstats.org
Windows VPS Cloud Server
SQL Server - .NET C#

Data Access

JSON API

WEBSITE

Main Application Server
https://data.aseanstats.org
Linux Cloud Server
PHP-Laravel

Other Intenational Agencies

Data Upload
WB, IMF, UN, OECD, etc

ASEANstats

ICT for Enhancing Business Process in ASEANstats

Benefits of utilizing ICT in ASEANstats business process

Collection

- Harmonised template
- Larger size of file
- Centralised submission
- Notifications/alerts
- Monitoring of data submission

Processing and Analysis

- Larger size of files
- Faster process
- Quality assurance
- Accessibility

Dissemination

- Multi-modes of dissemination
- Accessibility
- User-friendly
- Interactive
- Feedbacks for data producers

http://www.aseanstats.org

data.aseanstats.org

Easy Navigation

Multi Layout Options

Exportable

Formattable

Indicator Properties: Definition, Metadata, Last Data Update, Notes, License, etc.

📊 ASEANStatsDataPortal   Indicators   Dashboards   Search data e.g. Population, GDP, Tourism

Trade in Services, Intra-ASEAN, by Major Service Category, (in million US$)

Grid | Charts | Export   Format | Options | Fields | Fullscreen

Trade in Services, Intra-ASEAN, by Major Service Category, (in million US$)

	1	2	3	4	5	6	7	8	9	10	11
1	YEAR ⚙ DIRECTION ⚙										
2		▼2010			▼2011			▼2012			▼2013
3	SERVICE CATEGORY ⚙		Export	Import		Export	Import		Export	Import	Export
4	[99999] TOTAL SERVICES	80 904.10	42 091.80	38 812.31	96 377.60	49 801.36	46 576.24	107 113.81	55 032.97	52 080.85	114 950.46
5	[A0100] Manufacturing services on physical inputs owned by others	190.16	171.00	19.16	212.30	184.82	27.48	180.25	144.61	35.64	202.37
6	[B0200] Maintenance and repair services n.i.e.	1 022.16	894.24	127.92	1 048.85	901.70	147.14	1 231.41	998.03	233.38	1 171.56
7	[C0300] Transport	16 651.36	7 122.68	9 528.68	19 296.51	8 366.31	10 930.20	19 939.56	9 066.77	10 872.79	20 265.12
8	[D0400] Travel	39 832.38	22 912.52	16 919.86	47 487.94	27 183.46	20 304.48	53 193.47	29 181.08	24 012.39	57 058.45
9	[E0500] Construction services	1 292.55	755.97	536.59	1 440.93	829.94	610.98	2 159.01	1 047.00	1 112.01	2 702.46
10	[E0600] Insurance and pension services	2 214.87	816.56	1 398.31	2 674.06	925.74	1 748.32	3 567.61	1 435.80	2 131.81	3 411.52
11	[E0700] Financial Services	1 718.87	1 155.08	563.79	1 891.25	1 254.34	636.91	1 966.85	1 301.25	665.59	2 097.12
12	[E0800] Charges for the use of intellectual property, n.i.e	783.94	291.31	492.64	965.06	354.82	610.25	1 037.89	396.98	640.91	1 170.06

⌄ Metadata and notes

-- Related Indicators --

Indicator Code   : TIS.ASE.ASE.MST.MUS
Indicator Name   : Trade in Services, Intra-ASEAN, by Major Service Category, (in million US$)
Data Source   : ASEAN Sectretariat - ASEAN Trade in Services Database
Last Data Update   : 31-Aug-2017
Short Definition   : Trade in services records the value of services exchanged between residents and non-residents of an economy, including services provided through foreign affiliates established abroad.
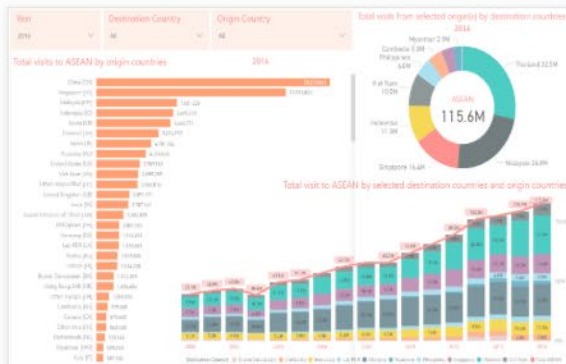
Metadata   :
1. Brunei Darussalam
2. Cambodia
3. Indonesia
4. Lao PDR
5. Malaysia
6. Myanmar
7. Philippines
8. Singapore
9. Thailand
10. Viet Nam

Notes   : • 2017 data is Preliminary
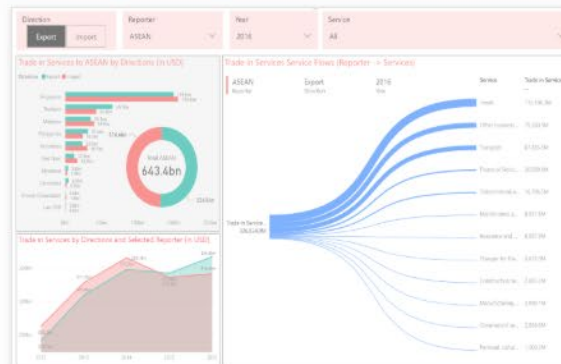
Online Data Visualisation Dashboard

Monthly Visitors (in 2019)
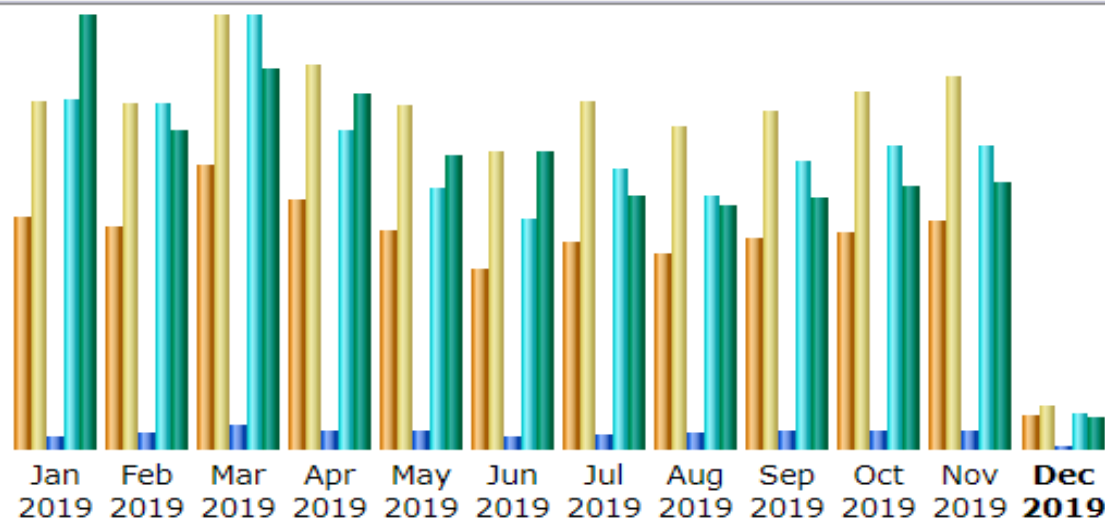
Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2019	5,396	8,073	29,320	745,656	72.10 GB
Feb 2019	5,182	7,984	31,201	735,325	52.92 GB
Mar 2019	6,624	10,040	53,996	923,236	63.50 GB
Apr 2019	5,764	8,882	40,116	681,314	58.93 GB
May 2019	5,029	7,973	36,173	555,120	48.55 GB
Jun 2019	4,128	6,861	30,738	488,169	49.45 GB
Jul 2019	4,848	8,081	34,417	595,820	42.10 GB
Aug 2019	4,497	7,472	34,256	537,271	40.08 GB
Sep 2019	4,892	7,842	36,007	612,318	41.96 GB
Oct 2019	5,048	8,256	39,794	646,568	43.68 GB
Nov 2019	5,276	8,598	40,143	642,602	44.25 GB
Dec 2019	768	998	4,355	75,844	5.12 GB
Total	57,452	91,060	410,516	7,239,243	562.64 GB

Top Downloaded Publications (on October 2019)

📄	/wp-content/uploads/2018/12/ASEAN-Key-Figures-2018.pdf	1,213
📄	/wp-content/uploads/2018/10/ASEAN-Statistical-Highlights-2018.pd...	644
📄	/wp-content/uploads/2019/01/asyb-2018.pdf	531
📄	/wp-content/uploads/2019/11/ASEAN_Key_Figures_2019.pdf	315
📄	/wp-content/uploads/2018/10/ASEAN_Statistical_Highlights_2018.pd...	200
📄	/wp-content/uploads/2017/08/ASEAN_economic_progress.pdf	199
📄	/wp-content/uploads/2016/11/AEC-Chartbook-2016-1.pdf	198
📄	/wp-content/uploads/2019/11/ASEAN_Stats_Leaflet_2019.pdf	182
📄	/wp-content/uploads/2018/01/ASYB_2017-rev.pdf	142
📄	/wp-content/uploads/2017/09/ACPMS_2017.pdf	133

Top Visitor Countries (on October 2019)

Locales		Pages	Hits	Bandwidth
Indonesia	id	5,706	112,190	5.72 GB
United States	us	4,393	64,684	4.97 GB
Thailand	th	2,958	37,433	2.65 GB
China	cn	2,405	39,079	1.73 GB
Singapore	sg	2,098	44,178	2.30 GB
Bulgaria	bg	1,735	1,997	22.62 MB
Philippines	ph	1,668	34,965	3.25 GB
Malaysia	my	1,487	30,478	2.08 GB
Japan	jp	1,329	22,185	1.40 GB
Vietnam	vn	1,314	26,982	1.50 GB
Canada	ca	1,151	3,216	271.64 MB
South Korea	kr	1,041	19,338	1.07 GB
India	in	968	19,810	1.62 GB
Great Britain	gb	851	10,868	903.00 MB
Russian Federation	ru	627	10,727	837.96 MB
Germany	de	596	12,433	679.98 MB
Australia	au	500	10,205	604.40 MB
Hong Kong	hk	442	8,919	679.31 MB
France	fr	411	4,639	366.53 MB
Brunei Darussalam	bn	394	7,007	437.78 MB
Greece	gr	334	1,659	377.60 MB
Myanmar	mm	249	4,448	319.75 MB
Switzerland	ch	188	3,596	268.91 MB
Taiwan	tw	186	4,730	308.59 MB
Others		2549	50644	4.52 GB

ASEANstats

Issues and Challenges

- Capacity gap

- Limited budget

- Inadequate human resources

- ICT is sophisticated: where and how to learn?

Opportunities

- Free software/application

- Clouds server

- Capacity building program by international organizations

- Inter-agency cooperation

- Bilateral and multilateral cooperation

ASEANstats

ASEAN help ASEAN

- ✓ To reduce dependency on donors

- ✓ Better sustainability

- ✓ More relevant knowledge and experience

- ✓ Better regional cooperation

ASEANstats

- To enhance current processes
- Continuous capacity building

New Initiatives

- ✓ ACSS Open Data Implementation Framework
- ✓ ACSS Initiative on the Use of Big Data for Enhancing Official Statistics

ASEANstats

Thank you