CURRENT STATE OF TRANSPORTATION DATA AND STATISTICS IN THE PHILIPPINES AND OPPORTUNITIES FOR IMPROVEMENT TOWARDS USABILITY

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Objectives

- Present an inventory of transportation data sources

- Assess the usability of the data according to the purpose

- Formulate recommendations for more effective data collection, processing and presentation

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Data sources

- Air Transport
    - Civil Aviation Authority of the Philippines (CAAP)
    - Airports (MIAA, MCIA, CIAC, etc.)
- Maritime Transport
    - Philippine Ports Authority (PPA)
    - Maritime Industry Authority (MARINA)
    - Other ports authorities
- Rail Transport
    - Light Rail Transit Authority (LRTA)
    - Philippine National Railways (PNR)
- Road Transport
    - Land Transportation Office (LTO)
    - Land Transport Franchising and Regulatory Board (LTFRB)
- Etc.

Department of Transportation (DOTr):
Air, Maritime, Rail and Road Transport Divisions

Others:
DPWH, NEDA, DILG, DOE, DA, DOT, MMDA, LGUs

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Purposes of data collection

Why do we collect data?
- Determination of mode share
- Determination of vehicle occupancy
- Estimation of fuel economy
- Estimation of vehicle emissions
- Estimation of travel speeds
- Estimation of vehicle-kilometers traveled (VKT) and passenger-kilometers traveled (PKT)
- Determination of black spots
- Etc.

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Purpose of data collection – Determination of mode shares

Mode	No. of Trips (000)	% of Public or Private	% to Total
Public Mode	17,337	100.0	48.8
Train	1,485	8.6	4.2
Bus	2,352	13.6	6.6
Jeepney	6,763	39.0	19.1
Tricycle	5,687	32.8	16.0
UV/HOV	261	1.5	0.7
Pedicab	631	3.6	1.8
Others	156	0.9	0.4
Private Mode	7,263	100.0	20.4
Motorcycle	2,948	40.6	8.3
Car	2,894	39.9	8.2
Taxi	315	4.3	0.9
Truck	270	3.7	0.8
Others	826	11.4	2.3
Walking	10,913	-	30.7
Total	35,503	-	100.0

Source: JICA Project Team

Note: Trips are by residents inside study area only.

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Purpose of data collection –
Determination of PKT & VKT - LAND

Table 8: Estimated person-kilometers for the Mega Manila area from the JICA Roadmap 2 transport model

Mega Manila		2017	2022 Do-Nothing	2022 with BBB	2035 Do-Nothing	2035 with BBB	2035 with Roadmap
Person-km ('000)	Car	63,736	66,133	64,126	73,769	74,641	73,499
	Public	84,042	93,582	78,451	121,701	93,611	95,733
	Rail	8,550	9,726	21,630	11,015	39,702	35,251
	Total	156,328	169,442	164,207	206,485	207,953	204,483

Source: JICA Roadmap 2 (2019)

Table 9: Estimated person-kilometers for the Metro Manila area from the JICA Roadmap 2 transport model

Metro Manila		2017	2022 Do-Nothing	2022 with BBB	2035 Do-Nothing	2035 with BBB	2035 with Roadmap
Person-km ('000)	Car	40,860	41,098	39,820	42,524	42,529	44,050
	Public	49,115	54,789	41,189	71,974	45,674	49,302
	Rail	8,550	9,726	21,630	11,015	39,702	35,251
	Total	98,526	105,614	102,639	125,512	127,906	128,602

Source: JICA Roadmap 2 (2019)

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Purpose of data collection –
Determination of PKT & VKT – RAIL

Table 14: Passenger-kilometers for the PNR Metro Manila Commuter Line

	2010	2011	2012	2013	2014	2015	2016
JAN	4,432,274	16,085,762	19,529,412	18,141,578	34,006,853	36,301,867	37,942,765
FEB	4,687,256	15,878,870	19,447,582	17,628,548	33,509,270	32,350,308	35,883,449
MAR	7,758,170	18,559,632	20,327,188	18,344,396	39,621,590	39,295,745	32,777,765
APR	7,635,978	15,099,350	16,579,150	19,629,988	33,827,346	32,218,542	32,109,825
MAY	8,792,140	17,341,422	17,803,310	21,153,328	37,493,404	3,505,818	31,125,155
JUN	10,634,722	17,575,250	17,931,746	21,620,536	34,022,051	-	30,895,223
JUL	12,841,332	18,123,574	17,761,520	25,246,872	34,630,021	7,380,948	29,752,548
AUG	12,751,774	18,381,650	13,579,020	22,322,216	34,294,939	29,942,926	29,282,517
SEP	12,919,970	18,725,644	15,386,714	25,043,620	34,163,112	34,371,817	29,559,730
OCT	13,821,248	19,433,624	17,485,132	26,831,168	35,764,053	32,631,060	32,051,587
NOV	14,738,038	19,029,738	17,498,796	22,964,346	36,620,564	37,781,009	28,834,979
DEC	16,278,416	20,354,278	18,008,494	26,527,875	36,816,325	39,199,580	24,472,125
TOTAL	**127,291,318**	**214,588,794**	**211,338,064**	**265,454,471**	**424,769,528**	**324,979,620**	**374,687,668**

Source: Philippine National Railways

Purpose of data collection –
Determination of PKT & VKT - AVIATION

Table 15: Statistics, and VKT and PKT Estimates for MCIA

Aircraft Type	Number of Departure Flights		Passenger Capacity	Passenger Number	Distance Travelled of Domestic Flights (in KM)			Average VKT	Average PKT
	Total	%Share			Arrival	Departure	Total		
A321-100	1,521	4.13%	200	108.84	761,933	754,644	1,516,577	496.15	54,000.93
A320	15,328	41.64%	180	97.96	7,712,652	7,784,857	15,497,509	507.88	49,750.35
A321	1	0.00%	200	108.84	567	567	1,134	566.92	61,703.57
A321-211	498	1.35%	200	108.84	282,326	282,326	564,652	566.92	61,703.57
A321-231	703	1.91%	200	108.84	397,004	395,941	792,946	563.22	61,300.52
A330	54	0.15%	335	182.31	30,614	30,614	61,227	566.92	103,353.48
A330-300	394	1.07%	335	182.31	222,233	223,366	445,599	566.92	103,353.48
A330-343	399	1.08%	335	182.31	225,646	226,201	451,847	566.92	103,353.48
A340-300	275	0.75%	375	204.08	155,903	155,903	311,806	566.92	115,694.20
B737-200	241	0.65%	215	117.00	159,646	158,332	317,978	656.98	76,868.63
B777-300	7	0.02%	396	215.50	2,132	3,625	5,757	517.80	111,587.56
Q300	594	1.61%	56	30.48	115,895	117,016	232,911	197.00	6,003.49
Q400	6,520	17.71%	90	48.98	1,521,544	1,528,289	3,049,832	234.40	11,480.45
ATR 72	10,242	27.82%	90	48.98	2,333,558	2,436,636	4,770,194	237.91	11,652.17

Reference: Statistics from Mactan Cebu International Airport Authority

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OBSERVATIONS/ASSESSMENT

- Agencies have varying report formats
  - No common template for railways
  - Airports and Ports mainly only report total inbound/outbound
- Varying policies and practices on data collection, processing and reporting/publishing
  - Annual reports, Atlas
  - Statistical yearbook
  - Not readily usable in certain cases
- Need for further standardization of data collection, analysis and reporting
  - Standard formats across agencies

CONCLUSIONS/RECOMMENDATIONS

- Conduct regular and strategic data collection
  - National and local levels
- Perform analysis of the data concerning trips made through their facilities such as terminals, airports and ports
  - Process to usable form
- Standardization of data collection, analysis and reporting
  - Standard formats across agencies

END OF PRESENTATION

THANK YOU FOR YOUR ATTENTION!

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