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(資料1)

Establishment of NCTS

NCTS project was initiated by the Record of Discussion signed by Dr. Takeshi Kurokawa, team leader and representing the Government of Japan, and Dr. Jose V. Abueva, President of the University of the Philippines and representing the Government of the Republic of the Philippines, on January 10, 1992 in Manila.

NCTS was established by the Executive Order 105 dated July 2, 1993, and by the approval of the 1071th Board of Regents Meeting of the University of the Philippines held on November 3, 1993.

The targets of NCTS project were described in said R/D as follows:

- (1) To integrate NCTS into the University of the Philippines as one of its regular units.
- (2) To strengthen the master's degree program major in transportation engineering and transportation planning offered by COE and SURP respectively in cooperation with NCTS.
- (3) To make NCTS play a leading role in human resource development and research activities in the field of transportation.
- (4) To provide necessary information services on transportation.
- (5) To conduct research and,
- (6) To extend services to government agencies responsible for the improvement of the institutional capability and the transportation system in the Philippines.

(資料 2)



REPUBLIC OF THE PHILIPPINES
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY
NEDA sa Pasig, Amber Avenue, Pasig City

Cable Address: NEDAPHIL
P.O. Box 418, Greenhills
Tele. 631-09 46 to 64

14 November 1996

Honorable Secretary Domingo L. Siazon, Jr.
Department of Foreign Affairs
2330 Roxas Boulevard
Metro Manila

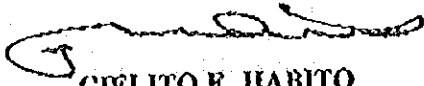
Dear Secretary Siazon:

This is to endorse the attached request of the University of the Philippines for a two-year follow-up assistance to the GOJ/JICA-assisted National Center for Transportation Studies Project, i.e., from 31 March 1997 to 31 March 1999 with an additional grant of P15 million to be provided by GOJ/JICA. The extension is necessary to fully achieve the objectives of the Project as set forth in the Record of Discussions signed on 10 January 1992.

Early transmittal of this request to the Japanese Embassy will be appreciated. Please inform us of the subsequent action of the Japanese Government regarding the extension of the Project.

Thank you and best regards.

Very truly yours,


CELITO F. HABITO
Secretary of Socio-Economic Planning
and NEDA Director-General



*Tulong-tulong
sa Pagsulong*

(資料 3)

NATIONAL CENTER FOR TRANSPORTATION STUDIES REGULAR TRAINING PROGRAM SUMMARY OF NUMBER OF TRAINEES						
BATCH NUMBER	DATE	COURSE			TOTAL	
		TRP	TCM	TRM		
1	05-Jun to 30-Oct-78	15	11	18	44	
2	05-Jan to 01-Jun-79	9	14	24	47	
3	09-Jul to 23-Nov-79	9	8	19	36	
4	21-Jan to 04-Jun-80	9	10	15	34	
5	21-Jul to 12-Nov-80	7	6	17	30	
6	19-Jan to 30-Apr 81	8	11	20	39	
7	17-Aug to 27-Nov-81	9	9	19	37	
8	15-Feb to 28 May-82	10	4	20	34	
9	26-Jul to 05-Nov-82	12	11	21	44	
10	14-Feb to 27-May-83	16	16	15	47	
11	11-Jul to 21-Oct-83	14	9	19	42	
12	13-Feb to 25-May-84	11	11	22	44	
13	09-Jul to 19-Oct-84	14	12	18	44	
14	17-Jun to 18- Oct -85	9	22	16	47	
15	07-Jul to 07-Nov -86	9	7	9	25	
16	16-Feb to 19-Jun-87	10	14	12	36	
17	01-Jul to 30-Oct -87	11	11	7	29	
18	15-Feb to 10-Jun-88	8	18	21	47	
19	20-Jun to 14-Oct-88	12	11	21	44	
20	13-Feb to 16-Jun-89	12	11	24	47	
21	21-Jun to 27-Oct-89	11	6	24	41	
22	12-Feb to 15-Jun-90	7	7	29	43	
23	25-Jun to 26-Oct-90	7	14	26	47	
24	28-Jan to 31-May-91	7	11	22	40	
25	10-Jun to 11-Oct-91	11	6	20	37	
26	27-Jan to 05-Jun-92	9	12		21	
27	20-Jul to 20-Nov-92	19	9	16	44	
28	01-Feb to 04 Jun 93	8	9	12	29	
29	05-Jul to 05-Nov-93	5	8	20	33	
30	07-Feb to 10-Jun-94	11	14	19	44	
31	11-Jul to 11-Nov-94	9	11	14	34	
32	7 Feb. to 30 June 95	8	10	24	42	
33-R	28- Aug. to 22- Sept-95	18		17	35	
33-A	2- Oct.- to 10-Nov.-95	7		11	18	
34-R	6-May to 31-May-96	13		18	31	
34-A	12 Aug to 13 Sept 96	5	6	21	32	
TOTAL		369	349	650	1368	

TTC



NCTS



(資料 4)

SUMMARY OF TOTAL NUMBER OF RTP PARTICIPANTS

AGENCY	BATCH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	TOTAL				
COA					1	3																																				
DECS			1																																							
DENR																																										
DLG			2		1	3	2																																			
DOTC		4	1	3		2		2		4	2	3	3	1	6	4	3	1	4	2	4	4	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DPWH		14	13	10	9	9	10	2	11	15	10	19	13	14	11	14	11	10	12	11	5	8	6	3	6	5	10	6	1	13	12	10	2	1	2	1	2	1	2	1	324	
HSC		5																																								
HSRC		2																																								
LFRB		1	1			4	1	6	5	3	8	5	3	5	2	7	3	4	6	4	5	1	3	5	6	1	3	1	2	1	1	1	3	4	2	1	1	1	107			
LTO																																										
MALAYSIA																																										
MHS		3	1		1	3	3		2																																	
MIAA																																										
MMAA																																										
MMDA																																										
MMTC																																										
MWSS																																										
NEDA																																										
NGA																																										
O.G.																																										
O.M.																																										
OPE																																										
PNP		18	27	17	15	14	16	15	17	9	3	14	15	16	7	10	7	16	14	19	20	20	23	19	14																	
PNR																																										
PPA																																										
PRIVATE																																										
TEC																																										
TRB																																										
UPP																																										
U.P. TTC																																										
TOTAL		44	47	36	34	30	39	37	34	44	47	42	44	47	25	36	29	47	44	47	41	43	47	40	37	21	44	29	33	44	34	42	35	18	51	32				1368		

TTC ← → NCTA

LEGEND:

- COA - Commission on Audit
- DECS - Dept. of Education Culture & Sports
- DENR - Dept. of Environmental & Natural Resources
- DLG - Dept. of Local Government
- DOTC - Dept. of Transportation & Communications
- DPWH - Dept. of Public Works & Highways
- ESC - Human Settlement Commission
- HSRC - Human Settlement Regulatory Commission
- LFRB - Land Transportation Franchising Regulatory
- LTO - Land Transportation Office
- MALAYSIA - Foreign
- MES - Ministry of Human Settlement
- MIAA - Manila International Airport Authority
- MMTA - Metro Manila Authority
- MMDA - Metro Manila Dev't Authority
- MMTC - Metro Manila Transit Corporation
- MWSS - M. Manila Waterworks & Sewerage System
- NEDA - National Economic Development Authority
- NGA - National Grains Authority
- O.G. - Office of the Governor
- O.M. - Office of the Mayor
- OPE - Office of Prov'l Engr.
- PNP - Philippine National Police
- PNR - Philippine National Railways
- PPA - Philippine Ports Authority
- PRIVATE - Private Sector
- TEC - Traffic Engineering Center
- TRB - Toll Regulatory Board
- U.P. - University of the Philippines
- U.P. TTC - U.P. Transport Training Center
- A - Advance Course
- R - Requisite Course

34th REGULAR TRAINING PROGRAM
Advanced Course in Transportation Planning (TRP)
 August 12 - September 13, 1996
 U.P. National Center for Transportation Studies

COURSE SCHEDULE

COURSE CURRICULUM / ASSIGNMENT OF LECTURERS

Date	Time						
	9:00 - 10:20	10:40 - 12:00	13:00 - 14:20	14:40 - 16:00			
Aug 12 Mon	OPENING	TPE 201	TPE 202	TPE 202	SP LEC 1		
13 Tue	TPE 205	TPE 206	TRP 212	SP LEC 2			
14 Wed	TPE 204	TPE 202	TPE 203	TPE 207			
15 Thu	TPE 205	TPE 206	TRP 212	TPE 207			
16 Fri	TPE 204	TPE 202	TPE 203	TPE 206			
19 Mon	QUEZON CITY DAY (NO CLASSES)						
20 Tue	TPE 206	TPE 206	TRP 212	TPE 205			
21 Wed	TPE 204	TPE 202	TPE 203	TPE 207			
22 Thu	TPE 205	TPE 206	TRP 212	TPE 207			
23 Fri	TPE 204	TPE 202	TPE 203	TPE 206			
26 Mon	TPE 204	TRP 209	TPE 206	TPE 207			
27 Tue	TPE 205	TPE 206	TRP 212	TPE 211			
28 Wed	TPE 204	TRP 208	TRP 208	TRP 208			
29 Thu	TPE 211	TPE 206	TRP 212	TPE 207			
30 Fri	TPE 204	TRP 209	TRP 208	TRP 208			
Sept 2 Mon	TRP 213	TRP 213	TRP 208	TRP 208			
3 Tue	TPE 211	TPE 211	TPE 210	TPE 210			
4 Wed	TRP 212	TRP 213	TRP 208	SP LEC 3			
5 Thu	TPE 211	TPE 211	TPE 210	TRP 213			
6 Fri	TRP 213	TRP 213	TRP 209	TRP 209			
9 Mon	Working Group Activity						
10 Tue	Working Group Activity						
11 Wed	Working Group Activity						
12 Thu	Working Group Activity						
13 Fri	CLASS PRESENTATION AND CLOSING DAY ACTIVITIES						

Subject Code	Subject Title and Description	Lecturer	No. of hrs.
TRP 201	Program Overview	Mr. Palmiano	1.5
TPE 202	Computer Elective	Ms. Callimag	7.5
TPE 203	Intermediate Statistics	Ms. Gaabucayan	6.0
TPE 204	Regression Analysis/Prob. Distn. Mathematics Review Course	Dr. Sigua	10.5
TPE 205	Linear Algebra/Partial Differentiation Philippine Transport System Institutional and Legal Aspects/ Development Plans	Mr. Esqueria	6.0
TPE 206	Transport Modelling Land Use/Transport System Interaction/ Travel Demand Analysis: 4-stap mod.	Ms. Tuazon	16.5
TPE 207	Traffic Eng'g. Concepts Primer on Traffic Flow Theory/ Transportation Sys. Mngt/ Low-cost solutions to trans. prob.	Dr. Sigua	9.0
TRP 208	Travel Demand Forecasting Disaggregate Modelling	Dr. Lidasan	10.5
TRP 209	Transportation Systems Eval. Proj. Mgmt./Proj. Cycle/Eco. Eval.	Ms. Tuazon	7.5
TPE 210	Design Standards for Facilities Design Standards	Mr. Tiglao	4.5
TPE 211	Road Transport Environment Road Traffic Noise, Vehicle Emission/ Air Pollution, etc. with field surveys	Ms. Mappala	9.0
TRP 212	Public Transport Planning Mass Transit Planning including rail-based systems, etc.	Mr. Gavila	9.0
TRP 213	Introduction to Physical Distribution and Logistics Basic Concepts of Physical Dist. and Logistics including design criteria	Dr. Vitoria	10.5
TRP 214	Small Working Group	Mr. Palmiano	24.0
SP LEC 1	Special Lecture 1	Dr. Konami	1.5
SP LEC 2	Special Lecture 2	Mr. Nakamura	1.5
SP LEC 3	Special Lecture 3	Mr. Tazawa / Mr. Abe	1.5
	Opening / Closing Activities		7.5
	Total Hours		144.0

Revised as of 02/12/96

34th REGULAR TRAINING PROGRAM
Advanced Course in Traffic Engineering and Management (TEM)

August 12 - September 13, 1996

U.P. National Center for Transportation Studies

COURSE CURRICULUM / ASSIGNMENT OF LECTURERS

Subject Code	Subject Title and Description	Lecturer	No. of hrs.
TEM 201	Program Overview	Mr. Paimano	1.5
TPE 202	Computer Elective spreadsheet, word processing	Ms. Calmag	7.5
TPE 203	Intermediate Statistics regression analysis, probability distns	Ms. Gabucayan	6.0
TPE 204	Mathematics Review Course linear algebra, partial differentials	Dr. Sigua	10.5
TPE 205	Philippine Transport System institutional and legal aspects, development plans	Mr. Esquerre	6.0
TPE 206	Transport Modelling land use, transport system interaction, travel demand analysis, 4-step mod.	Ms. Tuazon	16.5
TPE 207	Traffic Eng'g Concepts primer on traffic flow theory, transportation sys. mgmt., low cost solution to transp. problems	Dr. Sigua	9.0
TEM 208	Traffic Engineering Workshop	Mr. Regidor	6.0
TEM 209	Evaluation of Transportation Projects feasibility study, evaluation of highway and rd. alternatives/post evaluation	Mr. Date	6.0
TPE 210	Design Standards for Facilities Design standards	Mr. Tiglao	4.5
TPE 211	Road Transport Environment road traffic noise, vehicle emissions, air pollution, etc., with field surveys	Ms. Miezpala	9.0
TEM 212	Geometric Design of Roads road geometric design	Mr. Regidor	4.5
TEM 213	Intersection Design of Roads	Mr. Regidor	4.5
TEM 214	Traffic Accident and Analysis statistical analysis, conflict analysis, risk mgmt., accident investigation/micro and macro analysis	Mr. Tiglao	4.5
TEM 215	Road Traffic Management road traffic mgmt. & control including traf. mgmt. and rerouting during public construction, and other special cases	Mr. Paimano	4.5
TEM 216	Public Transport Engineering	Mr. Gavio	3.0
TEM 217	Pavement Design/Axle Load Design	Mr. Regidor	4.5
TEM 218	Small Working Group		24
SP LEC 1	Special Lecture 1	Dr. Xonami	1.5
SP LEC 2	Special Lecture 2	Mr. Nakamura	1.5
SP LEC 3	Special Lecture 3	Mr. Tazawa / Mr. Abe	1.5
	Opening / Closing Activities		7.5
	Total Hours		144.0

COURSE SCHEDULE

Date	Time		
Aug 12 Mon	9:00 - 10:20	OPENING	TPE 201
13 Tue	10:40 - 12:00	TPE 205	TEM 212
14 Wed	1:00-2:20	TPE 204	TEM 212
15 Thu	2:40-4:00	TPE 205	TPE 207
16 Fri		TPE 204	TEM 212
17 Mon		TPE 205	TPE 206
18 Tue		TPE 204	TEM 212
19 Wed		TPE 205	TEM 212
20 Thu		TPE 204	TEM 213
21 Fri		TPE 205	TEM 213
22 Sat		TPE 204	TEM 213
23 Sun		TPE 205	TEM 213
24 Mon		TPE 204	TEM 213
25 Tue		TPE 205	TEM 213
26 Wed		TPE 204	TEM 213
27 Thu		TPE 205	TEM 213
28 Fri		TPE 204	TEM 213
29 Sat		TPE 205	TEM 213
30 Sun		TPE 204	TEM 213
Sept 2 Mon		TPE 205	TEM 213
3 Tue		TPE 204	TEM 213
4 Wed		TPE 205	TEM 213
5 Thu		TPE 204	TEM 213
6 Fri		TPE 205	TEM 213
9 Mon		Working Group Activity	TEM 209
10 Tue		Working Group Activity	
11 Wed		Working Group Activity	
12 Thu		Working Group Activity	
13 Fri		C-CLASS PRESENTATION AND CLOSING DAY ACTIVITIES	

Revised as of: 08/12/96

34th REGULAR TRAINING PROGRAM
Advanced Course in Traffic Management for Traffic Law Enforcers (TRM)

August 12 - September 13, 1996
 U.P. National Center for Transportation Studies

COURSE CURRICULUM / ASSIGNMENT OF LECTURERS

Subject Code	Subject Title and Description	Lecturer	No. of hrs.
TRM 101	Program Overview	Mr. Paimano	1.5
TRM 202	Computer Elective spreadsheet, word processing	Ms. Cairmag	10.5
TRM 203	Basic Statistics II inferential statistics, test of hypotheses before and after test	Ms. Gabucayan	10.5
TRM 205	Traffic Safety Program and Education	Capt. Tomas	25.5
TRM 206	Traffic Laws and Regulations II C.A. vs. judicial cases, economic regulations, sanctions, environmental regulations (like anti-pollution laws), etc.	Mr. Licneudo	15.0
TRM 207	Traffic Accident Inv. and Analysis investigation, micro and macro analysis	Mr. Villacorta	15.0
TRM 208	Traffic Control and Safety Facilities new devices for safety and control, design of light, signal, road management and control, new control, etc.	Ms. Mappali	15.0
TRM 210	Traffic Administration	Mr. Acuan	15.0
TRM 212	Traffic Systems Management (TSM)	Mr. Paimano	(13.0)
TRM 214	TRM 212-213 and concepts Small Working Group		24.0
SP 1501	Special Lecture 1	Dr. Soracho	1.5
SP 1502	Special Lecture 2	Mr. Nakamura	1.5
SP 1503	Special Lecture 3	Mr. Tazawa / Mr. Abel	1.5
	Closing / Closing Activities		7.5
	Total hours		144.0

COURSE SCHEDULE

Date	Time		
Aug. 12 Mon	9:00 - 10:20	10:40 - 12:00	1:00-2:20 2:40-4:00
13 Tue	TRM 202	TRM 201	TRM 205 SP LEC 1
14 Wed	TRM 207	TRM 202	TRM 205 SP LEC 2
15 Thu	TRM 202	TRM 203	TRM 205 TRM 205
16 Fri	TRM 202	TRM 203	TRM 205 TRM 205
19 Mon	BEEHON CITY DAY (NO CLASSES)		
20 Tue	TRM 202	TRM 202	TRM 205 TRM 205
21 Wed	TRM 207	TRM 203	TRM 205 TRM 205
22 Thu	TRM 202	TRM 210	TRM 205 TRM 205
23 Fri	TRM 207	TRM 203	TRM 205 TRM 205
26 Mon	TRM 207	TRM 203	TRM 205 TRM 205
27 Tue	TRM 210	TRM 210	TRM 209 TRM 205
28 Wed	TRM 207	TRM 203	TRM 205 TRM 205
29 Thu	TRM 210	TRM 210	TRM 206 TRM 209
30 Fri	TRM 207	TRM 203	TRM 205 TRM 205
Sept. 2 Mon	TRM 207	TRM 210	TRM 205 TRM 209
3 Tue	TRM 207	TRM 210	TRM 205 TRM 209
4 Wed	TRM 207	TRM 209	TRM 209 SP LEC 3
5 Thu	TRM 202	TRM 210	TRM 206 TRM 205
6 Fri	TRM 207	TRM 209	TRM 205 TRM 205
9 Mon	Working Group Activity		
10 Tue	Working Group Activity		
11 Wed	Working Group Activity		
12 Thu	Working Group Activity		
13 Fri	CLASS PRESENTATION AND CLOSING DAY ACTIVITIES		

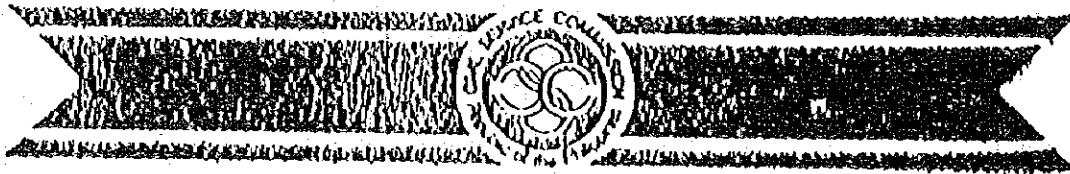
Revised as of : 08/27/96

(資料6)

TTC. NCTS 定期訓練コース卒業生の活躍の例

NCTS 1996.11.07

- 1 Cabuenas, Guillermo B. (交通管理、1978)
国家交通警察隊、人材開発部次長、警視
- 2 Genota, Solita V. (交通工学、1979)
公共事業道路省、計画・調査課 課長
- 3 Tomas, Elizer F. (交通管理、1979)
国家警察隊、交通局、上席調査官、NCTS講師
- 4 Castillo, Lucia I. (交通工学、1979)
公共事業道路省、交通技術センター、計画部長
- 5 Rigor, Froilan T. (交通計画、1980)
ダバオ市、計画・開発局、局長代理
- 6 Delapaz, Eliseo D. (交通管理、1980)
国家交通警察隊、車両指導課、課長、警視
- 7 Leyesa, Carolyn (交通工学、1981)
公共事業道路省、交通技術センター、設計課、課長
- 8 Caisip, Rodolfo (交通管理、1981)
国家交通警察隊、管理部、次長、警視
- 9 Donato, Joel A. (交通管理、1982)
運輸通信省、陸運局、車両検査事務所、所長
- 10 Pena, Romeo L. (交通管理、1983)
国家警察隊、捜査課、課長
- 11 Addure, Romeo A. (交通管理、1987)
モンテンプルバ市、警察部、部長、警視
- 12 Gutierrez, Mercedita E. (交通管理、1989)
運輸通信省、陸運局、車両登録部、部長
- 13 Subagan, Mario B. (交通管理、1993)
国家交通警察隊、モスリムミンダナオ支部、支部長
- 14 Javier, Cesau M. (交通管理、1996)
国家交通警察隊、第2地域(北部ルソン)支部、支部長



CERTIFICATE OF ACCREDITATION

Presented to

National Center For Transportation Studies

(011-00929 ~ 0595)

*for having satisfactorily met the requirements for
Accreditation as a Training Institution prescribed
under CSC Memorandum Circular No. 9, s. 1994.*

*All rights and privileges appurtenant thereto
shall be deemed in force unless sooner revoked by the
Commission.*

*Given this 17th day of August 1995 at the
Civil Service Commission, Constitution Hills, Dillman,
Quezon City.*



Corazon Alma G. de Leon
CORAZON ALMA G. DE LEON
Chairman

(資料8)

NCTS大学院修士課程カリキュラム (高速工学コース、交通計画コース)

THE COURSE REQUIREMENT OF NCTS GRADUATE PROGRAM

Category	Transport Engineering Course			Transport Planning Course		
	Code & Name of Course	Y.S.	Unit	Code & Name of Course	Y.S.	Unit
Major (compulsory)	j*CE240 Transport Planning & Policy 1	1.1		j*PL250 Transport Planning & Policy 1	1.1	
	j*CE246 Mathematical Methodology for Infrastructure Planning 2	1.2		j*PL251 Transport System Design 2	1.2	
	j*CE247 Transport Planning & Policy 2	1.2	3*5	j*PL252 Mathematical Methodology for Infrastructure Planning 2	1.2	3*5
	CE248 Advanced Traffic Engineering	1.2	-15	j*PL253 Transport Planning & Policy 2	1.2	-15
	j*CE249 Transport System Design 2	1.1		j*PL250.1 Special Seminar of NCTS 1 (Planning Workshop)	1.1	
Core (compulsory)	None			PL201 Fundamental and Practice of Planning	1.1	3*4
				PL202 Human Settlement Development	1.2	-12
				PL203 Land Use Planning	1.2	
				*PL299 Research Methods in Planning	1.1	
Applied Math. (compulsory)	ES201 Advanced Mathematical Methods in Engineering 1	1.1	3*2	None		
	ES204 Numerical Analysis	1.2	-6			
Elective	j*CE297 Special Seminar of NCTS 1 & 2 (NCTS requests 6 units)	1.1		j*PL299 Special Seminar of NCTS 1 & 2 (NCTS requests 3 units)	1.2	
		1.2	3 (6)			0 (3)
Thesis	j*CE300 Thesis Study 1,2	2.1		j*PL300 Thesis Study 1,2	2.1	
		2.2	6		2.2	6
Total	Minimum requirement for units: 30 (Minimum request of NCTS): (33)			Minimum requirement for units: 33 (Minimum request of NCTS): (36)		

Legend: j : joint class both for TE and TP

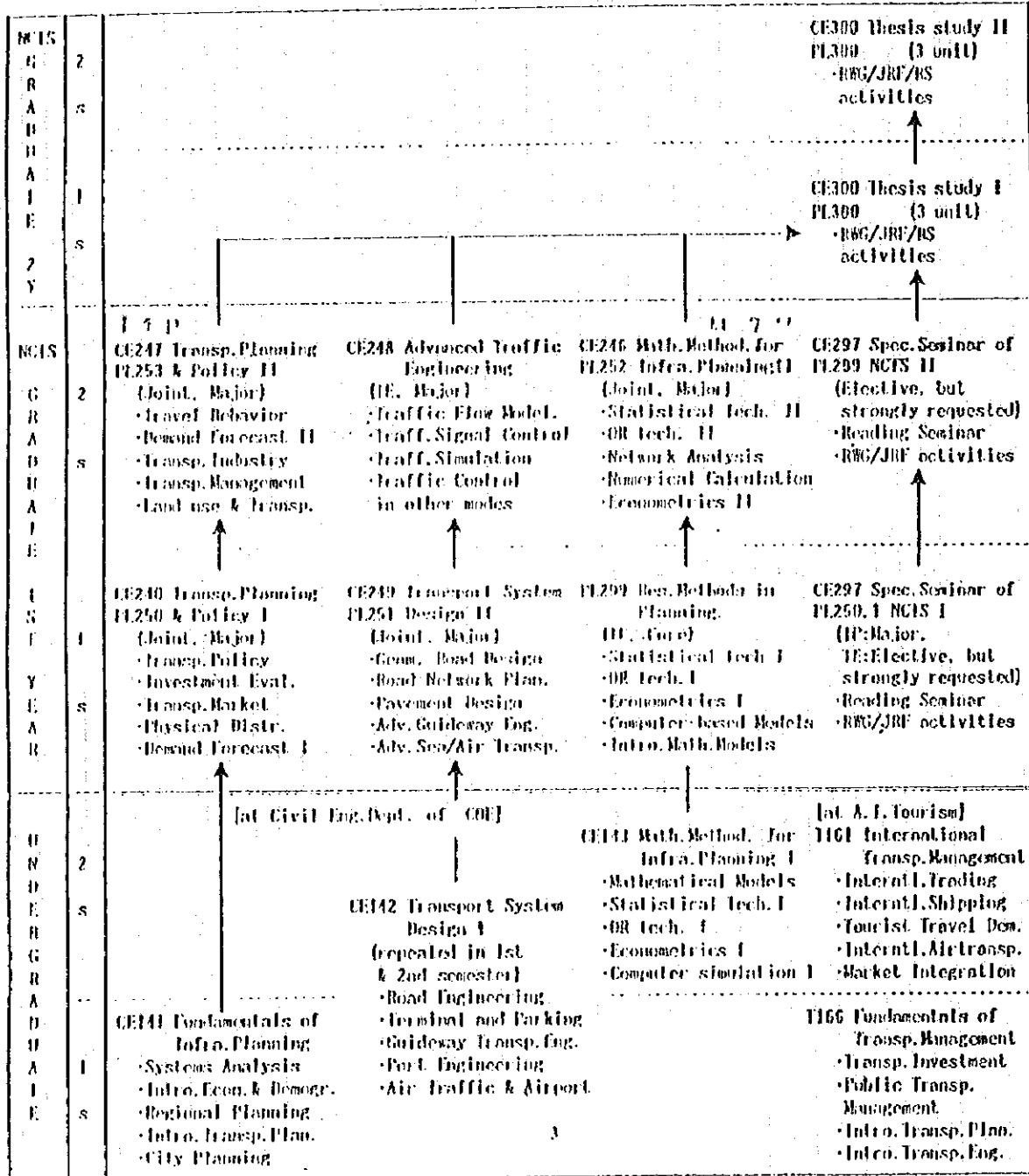
* : courses provided by NCTS

Y.S.: year and semester

(資料9)

The Hierarchic Architecture of Courses provided by NCIS

Legend II : Transport Engineering course
 IP : Transport Planning course
 Joint: Joint classes both for TE and for IP



(資料10)

NATIONAL CENTER FOR TRANSPORTATION STUDIES
Graduate Program Enrollment Record

Academic Year	Semester	Entering		Continuing		Graduating		Backed out		Total number of students
		TE	TP	TE	TP	TE	TP	TE	TP	
1993 - 1994	1st	9	4							13
	2nd			7	4			2		11
1994 - 1995	1st	2	3	5	4	2				16
	2nd	3	1	2	3	5	4			9
1995 - 1996	1st	2	4	4	4			1		14
	2nd	3	1	3	5	2	3	1		12
1996 - 1997	1st	3	6	3	5	2	1	1		20
	2nd			5	7	1	4			12

TE - Transportation Engineering
TP - Transportation Planning

NCTS (National Center for Transportation Studies) -
GRADUATES of Master Courses (1)

	NAME	DEGREE	DATE GRADUATED	TITLE OF MASTER'S THESIS	PRESENT EMPLOYMENT
1	Antonio C. Saldon Jr.	M.S. C.E.	Oct. 1994	EVALUATION OF SIGNAL PARAMETERS AT INTERSECTION OF METRO MANILA	DPWH Region 9
2	Emer T. Quezon	M.S. C.E.	Oct. 1994	STUDY ON THE EFFECTS & FLYOVER CONSTRUCTION ON TRAFFIC FLOW: THE CASE OF METRO MANILA	DPWH Region 1
3	Nonel Christopher C. Tiglao	M.S. C.E.	Apr. 1995	DISCRETE CHOICE MODEL ON LOCATIONAL CHOICES OF MANUFACTURING FIRMS IN INDUSTRIAL ESTATES: THE CASE OF CALABARZON IN THE PHILIPPINES	DCCD (Design, Consultancy, Construction Development) Engineering
4	Frederick G. Mangubat	M.S. C.E.	Apr. 1995	SPEED FLOW RELATIONSHIP AND PASSENGER CAR EQUIVALENT FOR TRUCK IN THE PHILIPPINES	M.S. C.E. (Structural Engineering)
5	Jose Regim F. Regidor	M.S. C.E.	Apr. 1995	INITIAL DEVELOPMENT OF SIMULATION PROGRAM FOR THE EVALUATION OF JEEPNEY STOP CONFIGURATION WITH FOCUS ON SINGLE LANE ROADWAYS	C. O. E. UP Diliman (NCTS)
6	Crispin Emmanuel D. Diaz	M.S. C.E.	Apr. 1995	EFFECTS OF OPENING ARTERIAL ROADS IN EXCLUSIVE RESIDENTIAL SUBDIVISION	Ph. D. Student University of Tokyo
7	Marites E. Tuazon	M.A. U.R.P.	Apr. 1995	ANALYZING TRANSFER DISUTILITIES IN DESEGREGATE MODE CHOICE MODELS FOR WORK TRIPS USING REVEALED AND STATED PREFERENCE DATA	DOTC Railway Transport Planning Division
8	Josephine M. Bayan	M.A. U.R.P.	Apr. 1995	COST CHARACTERISTICS OF BUS AND JEEPNEY TRANSPORT SYSTEM IN METRO MANILA	Philippine National Railway

NCTS (National Center for Transportation Studies) -
GRADUATES of Master Courses (2)

NAME	DEGREE	DATE GRADUATED	TITLE OF MASTER'S THESIS	PRESENT EMPLOYMENT
9 Rebecca T. Garsuta	M.A. U.R.P.	Apr. 1995	BASIC STUDY OF URBAN GOODS MOVEMENTS IN METRO MANILA; AN ASSESSMENT OF PHYSICAL DISTRIBUTION FACILITIES COMMODITY FLOW PATTERN	DPWH Head Office (Planning Department)
10 Dante B. Bautista	M.A. U.R.P.	Apr. 1995	SERIOUS ROAD TRAFFIC ACCIDENTS IN THE CITY OF MANILA FOR TRAFFIC SAFETY PLANNING	EDCOP (Private Company)
11 Rodrigo S. Bald	M.S. C.E.	Apr. 1996	EVALUATION OF DELAY ON UNSIGNALIZED INTERSECTION	Mindanao State University
12 Gilbert Roland C. Ortiz	M.S. C.E.	Apr. 1996	EXPLORATORY STUDY ON SHOPPING CENTER TRIP GENERATION	Private Consultant Company
13 Felicitisimo C. Pangilinan	M.A. U.R.P.	Apr. 1996	A STUDY ON AIRPORT PRIORITIZATION SCHEME	DOTC
14 Dolores J. Molintas	M.A. U.R.P.	Apr. 1996	A FRAME WORK FOR INCORPORATING- PERSON-TRIP SURVEY TO THE PHILIPPINE CENSUS OF POPULATION AND HOUSING	NEDA
15 Roly Q. Zambales	M.A. U.R.P.	Apr. 1996	EXPLORING THE POTENTIALS OF TELECOMMUNICATING IN THE PHILIPPINES WITH EMPHASIS ON EMPLOYEES' PERCEPTIONS AND STATED-PREFERENCES	DILG
16 Nenita R. Jimenez	M.A. U.R.P.	Oct. 1996	Predicting the Impact of EDSA Mass Rapid Transit on the Mode Choice Behavior of Car Users for Work Trips	DPWH
17 Ma. Jocelyn A. Jarbadan	M.A. C.E.	Oct. 1996	Investigating the Suitability of Volcanic Ash/Sand as an Alternative Material for Road Subbase Courses and Stabilized Base Courses	
18 Rene Val R. Teodoro	M.A. C.E.	Oct. 1996	Empirical Analysis of the Relationship Between Air Pollutant Concentration and Road Traffic and Meteorological Parameters	

C.E. : Civil Engineering (COE)
U.R.P. : Urban and Regional Planning (SURP)
M.S. : Master of Science
M.A. : Master of Arts

(資料12)

NCTSの学術的研究成果

学会での論文 (Technical Paper) 発表実績

・第一回アジア交通学会 (1995)

7編 (Refereed Papers)

EASTS: The Eastern Asia Society for Transportation Studies

1) Cost Characteristics of Bus and Jeepney Transport System in Metro Manila

J.M. BAYAN, O.G. VILLORIA, II, TEDA

2) Basic Study of Urban Goods Movement in Metro Manila : An Assessment of Physical Distribution Facilities and Commodity Flow Pattern

R.T. GARSUTA, II, KUSE

3) The Role Information System in Establishing the JUST-IN-TIME (JIT) Type Transportation

II, KUSE, J.T. CASTRO, Y. TAKAHASHI

4) Development of a Simulation Program for the Evaluation of Jeepney Stop Configurations with Focus on Single Lane Roadways

J.R.F. REGIDOR, R.G. SIGUA

5) Analyzing Transfer Disutilities in Disaggregate Mode Choice Models for Work Trips Using Revealed and Stated Preference Data

M. TUAZON, O.G. VILLORIA

6) Effects of Uncontrolled Loading and Unloading of Jeepney/Buses on the Capacity of Signalized Intersections

R.G. SIGUA

7) Discrete Choice Model on Locational Choices of Manufacturing Firms in Industrial Estates : The Case of Calabarzon in the Philippines

N.C.C. TIGLAO, A. MIYAKAWA

・フィリピン交通学会での論文発表件数

(TSSP)

第一回 (1993)

5編

第二回 (1994)

7編

第三回 (1995)

3編

第四回 (1996)

7編

その他学会、各種シンポジウム等での発表

多数

22頁

(資料13)

NCTS DISCUSSION PAPER SERIES

Discussion Paper No.	Date	Title	Author/s
1	July 1995	Financial Reforms Toward Sustaining a Healthy Transportation Infrastructure	Dr. Toshinori Nemoto Dr. Olegario G. Villoria, Jr.
2	July 1995	An Overview of Travel Demand Management	Dr. Ricardo Sigua Dr. Hirohito Kuse
3	July 1995	Tricycles, "Kuligligs" and Pedicabs: Bane or Boon on the Highways	Samuel Julius Garcia
4	Sept. 1995	Basic Study of Urban Goods Movement in Metro Manila: An Assessment of Physical Distribution Facilities and Commodity Flow Patterns	Rebecca Garsuta Dr. Hirohito Kuse
5	Sept. 1995	The Role of Information Systems in Establishing the Just-In-Time (JIT) Type Transportation	Dr. Hirohito Kuse Jun T. Castro Dr. Takahashi
6	Sept. 1995	Cost Characteristics of Bus and Jeepney Transport Systems in Metro Manila	Josephine M. Bayan Dr. Olegario G. Villoria Dr. Hitoshi Jeda
7	Sept. 1995	Development of a Simulation Program for the Evaluation of Jeepney Stop Configuration with Focus on Single Lane Roadways	Jose Regin F. Regidor Dr. Ricardo G. Sigua
8	Sept. 1995	Economic Appraisal of Policy Alternatives of Transportation Demand Management: A Case Study in Fukuoka City	Dr. Toshinori Nemoto
9	Sept. 1995	Analyzing Transfer Discussion in Disaggregate Mode Choice Models for Work Trips Using Revealed and Stated Preference Data	Marites E. Tuazon Dr. Olegario G. Villoria
10	Sept. 1995	Defining Conductivity of Panel Survey in the Context of Developing Countries	Dr. Hussein S. Lidasan Dr. Haruo Ishida Dr. Takeshi Kurokawa Dr. Tohru Tamura
11	Sept. 1995	Discrete Choice Model on Location Choices of Manufacturing Firms in Industrial Estates: The Case of Calabarzon in the Philippines	Noriel C. Tiglao Dr. Asaichi Miyakawa
12	Sept. 1995	Effects of Uncontrolled Loading and Unloading of Jeepneys and Buses on the Capacity of Signalized Intersection	Dr. Ricardo G. Sigua
13	Sept. 1995	Institutional Study for Traffic Management in Metro Manila	Engr. Esteban Q. Cases Dr. Haruo Ishida
14	Dec. 1995	Uncertainty in Transportation Demand Forecasting	Dr. Olegario G. Villoria Nenita R. Jimenez Felicisimo C. Pangilinan, Jr.
15	March 1996	The Impact of Transportation Infrastructure on the Economic Development of Subic Bay Freeport Zone	Lilibeth Ares, Janith Chan, Michael Oliver de Guzman, Alexander Ernesto Estoesta, Jose Felizco, Winifred Frias, Manuel Hernandez, Ma. Jocelyn Jarbadan, Nenita Jimenez, Deo Leo Manalo, Ariel Tagapolot, Rene Val Teodoro
16	March 1996	Jeepney Business in Metro Manila - What are the condition for its sustainability? -	Jiro Ebata Dr. Toshinori Nemoto Mannuel T. Apuan Jun T. Castro
17	April 1996	Studies for Traffic Environments in Metro Manila --Air Pollution along the EDSA Avenue--	Mr. Kenji Oshima Mr. Tadayoshi Nakamura Mr. Dennis Paulo C. Jugueta Ms. Aileen U. Mappala Mr. Rene Val R. Teodoro Mr. Manuel T. Apuan

注) ディスカッションペーパーは、NCTSにおける研究活動、セミナー等の成果を公表できるようにテーマごとに取りまとめた小冊子であり、内部的には成果のきららとした形での書籍、外部的には成果の発信媒体となることをわらいとされている。現に、交通工学に関するマスタプランの作成に活用されている。

List of Reseach Groups

As of 1996/18/11

RG 1	RG 2	RG 3	RG 4
Transportation Engineering <u>Faculty</u> 1. Dr. Ric Sigua	Transportation Planning <u>Faculty</u> 1. Dr. Jun Villoria 2. Dr. Hirohide Konami	Regional Planning <u>Faculty</u> 1. Dr. Tho Lidasan 2. Dr. Yoji Kawakami 3. Dr. Mamuro Nagai	Convenor's Group Position Paper <u>Faculty</u> Dean Rey Vea and all NCTS Faculty Members
<u>NCTS Staff / JICA Expert</u> 1. Seiya Tazawa 2. Aileen Mappala 3. Carmen Gerundio	<u>NCTS Staff / JICA Expert</u> 1. Sean Palmiano 2. Sheila Gaabucayan	<u>NCTS Staff / JICA Expert</u> 1. Noriel Tigiao 2. Fumihiko Abe	
<u>Graduate Students</u> 1. Ariel Tagapolos (M2) 2. Caesar Rubite (M1) 3. Fiter Jay Santos (M1)	<u>Graduate Students</u> 1. Noel Hernandez (M2) 2. Nestor Estoesta (M2) 3. Jose Romary Salas (M1)	<u>Graduate Students</u> 1. Winan Frias (M2) 2. Joey Felizco (M2) 3. Joel Magbanua (M1) 4. Gilbert Buenaventura (M1) 5. Jose Teodorico Real (M1) 6. Ramie Doroy (M1)	

Notes: 1. All M1 engineering student are encouraged to attend the RG1.
 2. M1 planning students will be divided among RG2 and RG3.
 3. The convenor's group is chaired by Dean Reynaldo B. Vea (COE) and is a special working group.

As of 1996/13/11

Subic (RG5)	ITS (RG6)	Database/GIS (RG7)	MMUTIS (RG8)	UP Parking Study (RG9)
<u>Faculty</u> 1. Dr. Tho Lidasan 2. Dr. Yoji Kawakami	<u>Faculty</u> 1. Dr. Hirohide Konami 2. Dr. Jun Villoria	<u>Faculty</u> 1. Dr. Jun Villoria 2. Mr. Noriel Tiglao 3. Mr. Fumihiko Abe	<u>Faculty</u> All Faculty Members	<u>Faculty</u> 1. Dr. Tho Lidasan (?)
<u>NCTS Staff / JICA Experts</u> 1. Manny Apuan 2. Mervyn Rostrata	<u>NCTS Staff / JICA Experts</u> 1. Noriel Tiglao	<u>NCTS Staff / JICA Experts</u> 1. Noriel Tiglao 2. Sherrie Gay Cruz 3. Cecille Gardon 4. Remedios Angeles	<u>NCTS Staff / JICA Experts</u> All NCTS Staff	<u>NCTS Staff / JICA Experts</u>
<u>Graduate Students</u> 1. Noel Hernandez (M2) 2. Nestor Estocita (M2) 3. Gilbert Buenaventura (M1) 4. Ramie Doroy (M1) 5. Daniel Mabazza (M1) 6. Joel Magbanua (M1) 7. Valdimar Mejia (M1) 8. Teodorico Real (M1) 9. Caesar Rubite (M1) 10. Romarx Salas (M1) 11. Fiter Jay Santos (M1)	<u>Graduate Students</u> 1. Ariel Tagapolot (M2) 2. Teodorico Real (M1) 3. Caesar Rubite (M1)	<u>Graduate Students</u> 1. Daniel Mabazza (M1) 2. Joel Magbanua (M1) 3. Teodorico Real (M1) 4. Romarx Salas (M1)	<u>Graduate Students</u>	<u>Graduate Students</u> 1. Gilbert Buenaventura (M1) 2. Ramie Doroy (M1) 3. Daniel Mabazza (M1) 4. Joel Magbanua (M1) 5. Valdimar Mejia (M1) 6. Teodorico Real (M1) 7. Caesar Rubite (M1) 8. Romarx Salas (M1) 9. Fiter Jay Santos (M1)

Notes: 1. QMC awaits submission of final project paper.

2. Graduate students are encouraged to participate in at least one special RG.

(資料15)

大統領指令 (Memorandum from the President)

1996年4月10日

宛先 高等教育委員会議長 (CHED)
科学技術大臣 (DOST)
経済開発大臣 (NEDA)
予算管理大臣 (DBM)
公共事業・道路大臣 (DPWH)
運輸・通信大臣 (DOTC)
環境・天然資源大臣 (DENR)
通商産業大臣 (DTI)

国立工学系大学院 (NGSE) に対する政府の支援について

フィリピン大学 (UP) は卓越した工学のセンターとして認められてきたところであるが、同大学評議会の議を経て、同大学に国立工学系大学院 (NGSE) を設立し、国家が必要とする教育、研究、訓練、工業の計画と開発の各目的に必要な専門家を育成するものとする。NGSEの成功を確たるものとするため、関係各位におかれては以下の措置を執られたい。

1. CHED : 以下によりNGSEを支援するものとする。
 - 1.1 フィリピンにおけるUPおよびその他の大学の工学部に対する奨学金プログラムにり、NGSEにおける大学院教育が受けられるようにすること。
 - 1.2 教育、研究の水準を向上させるための、技術に関する異分野交流プログラムを活用することとし、特に、工学部に関しては大学院レベルにおいてこれを推進する。
2. DOST : DOSTの予算は科学技術人材開発プログラムに重点的に配分することとする。これは、工学の分野の優秀な人材がより高い学位を取得するための奨学金、調査研究費、研究施設整備、その他国家の科学技術発展のために必要な経費を含むものとする。
3. NEDA : NGSEの発展、ひいては国家の工学に関する能力の向上に資するため、必要に応じODAのプログラムおよびプロジェクトによって支援を行う。
4. DBM : 各関連機関に計上されている予算うち、NGSEに関する予算については優先的に配分執行させるものとする。
5. DPWH
 - 5.1 DPWHの予算の一部を活用し、1997年を初年度として、NGSEにおける修士又は博士課程の学生として奨学生を派遣するものとする。
 - 5.2 NGSEとの共同調査を実施するものとする。
6. DOTC : 既存の奨学生派遣プログラムによりNGSEに奨学生を派遣する。

7. DTI

- 7.1 Board of Investment 登録企業に対し、工学に関する新しい技術の開発およびその関連分野について、NGSEと協力するよう指導する。
- 7.2 1997年を初年度とし、DTI奨学資金にNGSEへの奨学生派遣予算を計上する。

8. DENR

- 8.1 UPに対する技術支援、共同調査の実施の他、Structural Geology, Environmental Geology, Geologic Hazards その他の分野について、UPと協議の上、それらのカリキュラム作成について協力する。
- 8.2 1997年を初年度とし、奨学資金の一部をNGSEに派遣する奨学生の予算として配分する。

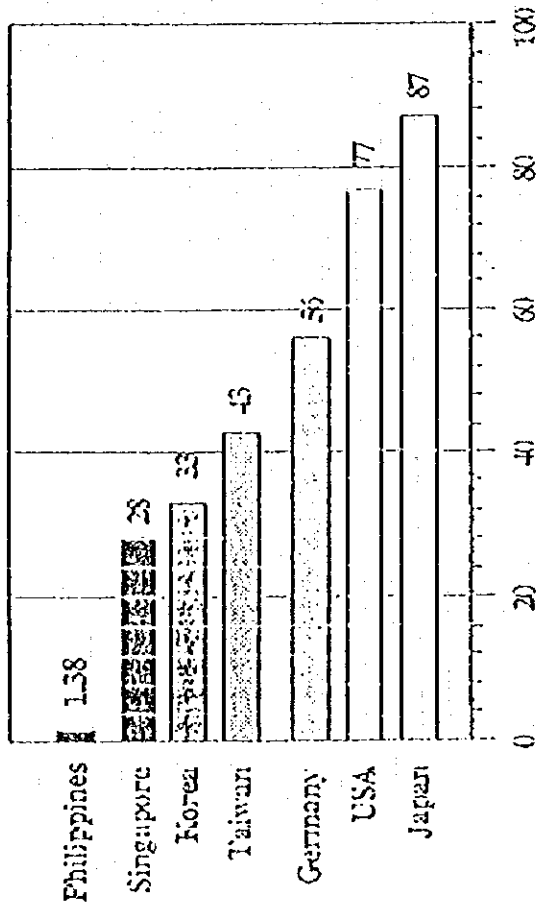
以上の支援方策について、UPと各関連機関は必要な協定書を作成の上具体化を図るものとする。

高等教育委員会は1996年4月15日までに関係機関の準備状況について取りまとめの上、各省担当事務局、大統領府事務局を通じて大統領に報告するものとする。

以上。

大統領サイン

(資料16)



Comparison of number of (RSE's) per 10,000 of the population of selected countries

(COE, NGSEを構想より抜粋)

(資料17)

Ratio of
M.S./Ph.D.
Holders to B.S.
Holders
in Selected Asia-
Pacific Countries

Country	Ratio
Singapore	0.204
Japan	0.199
Australia	0.136
PROC	0.103
Thailand	0.040
Philippines	0.002

Study traces traffic jams to undisciplined jeep, bus drivers

Undisciplined jeepneys and bus drivers and the lax enforcement of traffic rules are two of the major causes of traffic congestion, a recent study conducted by the University of the Philippines said.

Stopping patterns of jeepneys and buses in some of Metro Manila's major intersections were analyzed in a study titled *Effects of Uncontrolled Loading and Unloading of Jeepneys and Buses on the Capacity of Signalized Intersections* and authored by Dr. Ricardo Sigua, assistant professor at UP's National Center for Transportation Studies.

The study was presented during the First Conference of the Eastern Asia Society for Transportation Studies held in Manila only two weeks before the government implemented the controversial color-coding scheme for private and public vehicles.

The scheme, which was initiated by Metro Manila traffic czar Senior Superintendent Romeo Maganto, aims to reduce traffic congestion in the city's national roads. It limits the volume of vehicles on the road at a certain given time based on the last digit of their license plates.

The UP study, on the other hand, cited the frequent stopping of jeepneys and buses to load and unload either anywhere or at a designated stops disrupts traffic flow.

"In proper location of stops with respect to the intersection and lack of bays also contribute a lot to the problem," the study said.

Uncontrolled loading and unloading of jeepneys and buses happens most often when no traffic enforcer is present. But the study noted that it also happens even when there is a traffic enforcer at the intersection "but does not mind other related activities, such as loading and unloading and crossing of pedestrians."

It cited the existing practice among most of jeepney and bus drivers and its concomitant effects to the flow of traffic.

"With the great number of jeepneys or buses wanting to make stops along major thoroughfares in Metro Manila, overflowing of these vehicles is inevitable when the stop is located after the intersection. In the same token, double stopping often occurs when the stop is located before the intersection," the study pointed out.

Based on available statistics from the Department of Transportation and Communications, jeepneys account for roughly 50 percent, and buses 14.60 percent of a combined total of 60 percent of Metro Manila's transport mode share. Private vehicles account for only 35 percent.

If the stop is located before the intersection, the study said, jeepneys and buses block the right turn traffic and "even if the traffic signal is green, the outer lane (curb lane) is almost always unutilized."

When the stop is located after the intersection, public vehicles block right turn from other direction and block path of through from other direction.

"When there is long queue of stopping jeepneys, there is tendency to double stop so as to avoid being caught inside the intersection which further

causes the blocking of traffic in the same direction," it said.

To avoid this scene which is common among all intersections in the metropolis, the study recommended the following:

• During peak hours, strictly regulate the stopping of jeepneys and buses.

• Careful study should be made on the location of stop bays relative to intersection. Jeepney stops should be located before intersection. When the signal is green, they should proceed to cross intersection. The length of stop bay should be 50 to 100 meters after intersection.

• Strict law enforcement and penalties against drivers must be observed.

• Provision of jeepney bus bays should be considered to minimize the effects of stopping or waiting on traffic lights. — Manila News Staff's Commentaries

Kaya masikip pa rin ang trapiko **Mga tsuper, walang disiplina.**

MANILA (MNC) - Ang kawalan ng disiplina ng ilang mga tsuper ng pampasaherong mga sasakyan at maluwag na pagpapatupad ng gabatas pang trapiko ang pangunahing sanhi ng pagsisikip ng trapiko sa mga lansangan ng Maynila.

Ito ang lumitaw sa isang pag-aaral na ginawa ng ilang mga taga-saliksik mula sa University of the Philippines o UP.

Ayon sa pag-aaral na may pamagat *Effects of Uncontrolled Loading and Unloading of Jeeps and Buses on the Capacity of Signalized Intersections* at sinulat ni Dr. Ricardo G. Sigua, assistant professor mula sa UP's National Center for Transportation Studies, ang pagsisikip ng trapiko

ay bunga ng madalas na paghinto-hinto ng mga *public utility jeepney o PUJ* at *public utility bus o PUB*.

Nakakuha ng kopya ng nasabing pag-aaral ang Manila Newsfeatures and Controversies na kong saantalakay rin sa First Conference of the Eastern Asia Society for Transportation Studies held in Manila na ginanap kamakailan, dalawang linggo bago ipatopad ng gobyerno ang kontrobersiyal na color-coding scheme para sa mga sasakyang pampribado at pampubliko.

Layunin ng bagong programaang ito, na ipinatupad ni Metro Manila traffic czar senior Superintendent Romeo Maganto, na bawasan ang pagsisikip ng trapiko sa mga pangunahing lansangan ng Maynila.

Sa dalim ng nasabing programa, bakasyon ng isang araw ang mga sasakyan, depende sa hulugang numero ng *plate number* nito.

Saanantala, base sa pag-aaral ng mga taga-UP, ang madalas na paghaba at pagsakay ng mga pasahero kung saan-saan ng mga pampasaherong sasakyan ang dahilan ng pagsisikip ng trapiko.

PINOY 7 November 1995

High gasoline taxes to ease traffic?

By ALFREDO P. HERRERA, Jr.

Traffic congestion can be eased by increasing the tax on gasoline and earmarking transport collections for transportation infrastructure.

A study made by Dr. Robinson Namona and Olegario Villalita of the National Center for Transportation Studies (NCTS) says increasing gasoline tax "can effectively control vehicle usage in terms of trip mileage."

The study, entitled "Financial Reform Toward Sustaining a Healthy Transportation Infrastructure," also

recommends that government collections from gasoline taxes and transport operations be spent exclusively for transportation infrastructure projects.

"As part of a strategy to remedy the chronic infrastructure budget shortage, collections from all transport-related revenue generating sources should be placed in an infrastructure fund exclusively earmarked for investments in new construction projects and maintenance of current transportation infrastructure," the study says.

The study also recommends that road use charges be imposed on motorists and that the proceeds be used also for transportation infrastructure.

"We believe that the beneficiaries-pay-principle will promote efficiency and equity in the financing of transport infrastructure," the authors said.

The study, however, says increasing the gasoline tax, which is approximately proportional to distance traveled, is more effective in altering indi-

vidual vehicle usage patterns of behavior.

The authors said proposals of reducing or scrapping the fuel tax to prevent oil price hikes are not sound. "By definition, fuel tax is a kind of road user charge that ought to be used exclusively for road works and maintenance," the authors said.

"It is neither a tool to stabilize fuel price, nor a source of funds to be used for purposes other than what it was intended for," they added.

"If we accept to lower or scrap altogether the fuel tax, which in turn will decrease the infrastructure fund, what will happen to the roads and other infrastructures in a few years time?" the authors said. They added that provision and maintenance of "good transportation infrastructure are essential to sustain (the observed) upward trend in the economy."

The study also notes that Filipino road users "do not pay enough taxes." In case of road infrastructure provision, the beneficiaries are road users. However, in the Philippines, the road users do not pay the cost of using road space in proportion to the mileage they run," the study says. "They mainly pay for the taxes when buying a car, and fees for annual registration. Therefore, it can be expected that demand is apt to exceed real travel needs," it adds.

A comparison of car sales tax in five countries shows that the Philippines imposes one of the highest. The study says a car worth US\$30,000 is taxed \$7,800 in the Philippines. Car sales taxes in other countries for the same car are as follows: Japan, \$2,200; Singapore, \$5,200; US, \$3,650; and Germany, \$1,000.

The Philippines, however, has the lowest gasoline tax rate at \$8.8 per 100 liters. Gasoline taxes per 100 liters in the other countries are as follows: Japan, \$63.2; Singapore, \$51.8; US, \$32; and Germany, \$80.

Panglao airport dev't in the works as local government acquires land

By MARIF S. JARA, Reporter

"We have a lot of space here, so they will be transferred also within Panglao," the mayor assured.

Panglao airport will stand as the province's second after the existing airport in Tagbilaran, the city capital. Panglao airport is designed to have a 1,800-meter runway in order to accommodate large aircraft aside from the Yoller 50s flying to and from the province at present. Philippine Airlines recently announced it is mulling the phaseout of the Fokker 50s as these are not profitable for the company.

Governor Rene Romalagan said Tagbilaran airport's 1,450-meter runway is set to be extended in anticipation of the phaseout and as a remedial measure before the completion of the airport here. The provincial government is awaiting the decisions of the Department of Transportation and Communication and the Civil Aeronautics

Board.

The local funds used by the town government are in line with its thrusts to "tourism" and "undertake" the long-pending development of the 120-hectare Panglao Tourism Estate, Mr. Alcala said.

He said such a move was decided upon by the local government after they were informed by tourism undersecretary William Ruzel Sobrepina that the P244-million fund committed by former tourism secretary Vicente Carlos has yet to be allocated.

Mr. Benedicto said officials are also looking into the feasibility of employing the build-operate-and-transfer scheme for the construction of the airport as a Japanese firm has expressed interest in the project.

Town officials are hopeful the airport will start construction before the year 2000.

Life in the fast lane

ALAN CRANDLER



WHILE everybody seems fixated on the odd-even scheme, there are three positive things you can do about Metro Manila traffic.

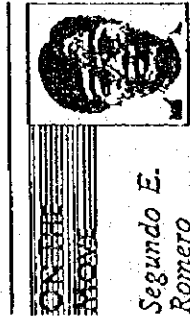
First, you can join or support the Concerned Citizens Against Pollution (Cocap). Cocap was instrumental in the introduction of unleaded gasoline in the Philippines last year. It held a strategic planning session last Saturday to reinvigorate its campaign against air pollution.

While many of us insist on using unleaded gasoline only, many car owners whose vehicles are equipped for unleaded gasoline have not joined our ranks, and blithely continue to use leaded gasoline. Many are unaware that 70 to 90 percent of our pollution in Metro Manila is caused by fuel emissions from motor vehicles.

Cocap reminds us that air pollution is the most serious health threat confronting Metro Manilans. The World Health Organization has listed Metro Manila as one of the world's most polluted cities. This pollution has been directly linked by authoritative studies to cancer, hypertension, and cardiovascular diseases, tuberculosis, asthma, other respiratory diseases, and brain damage in children.

Cocap, however, is only a catalyst. Society is the real mover. Among the organizations working with Cocap are the Bishops Businessmen's Conference, the Met-

Beyond odd-even



Segundo E. Romero

ropolitan Environmental Improvement Program (MEIP) supported by the UNDP, the World Bank, and the DENR, and school-based organizations such as Miriam-PEACE (Public Education and Awareness Campaign for the Environment).

Apart from working for wider acceptance of unleaded gasoline, Cocap also will work for cleaner diesel fuel, and cleaner diesel engines. Many of the worn-out secondhand diesel engines in Metro Manila streets are 10 times more polluting than properly maintained engines. Cocap can be contacted at telefax 922-9205.

A second thing you can do is not to navigate on a trial and error basis, thus being part of the traffic congestion problem. Be better at "routemanship," or the art of finding a shorter, less congested route to any destination. Helpful in this regard is the MUST Handbook (Motorists' Utilities and Services Tool Handbook) which a group of young entrepreneurs just out of college launched last Saturday. The

handbook is a motorist's filefax, a variable data toolbox to meet your travel and traffic information needs. It is a distillation of a filing cabinet's worth of traffic and travel information, maps, directories, rules and regulations, emergency telephone numbers arranged by city/municipality, etc. Call 671-5723 to 27 for information on how to get your copy.

A third thing you can do is help nominate a director for the National Center for Transport Studies at the University of the Philippines, which has been without a director for two years now.

The nomination is open to the faculty, research, and administrative personnel of UP particularly of the NCTS, the College of Engineering, and the School of Urban and Regional Planning (SURP). It is also open to other transportation-oriented professionals in the government and private sectors outside the University, particularly in the DOTC, the DPWH, the TEC, the Neda, the MMDA, etc. Call 922-4928 for information on the nomination process.

Traffic is serious business in the Philippines. We citizens must do our share to attend to several necessary tasks all at the same time.

Questions? Comments? Please write Box 181, UP Post Office, Diliman, QC, 1101 or e-mail seromero@mni.sequel.net



Company	Year	Revenue	Profit	Employees
1. American Express	1994	\$1.14 billion	\$100 million	100,000
2. American Express	1995	\$1.14 billion	\$100 million	100,000
3. American Express	1996	\$1.14 billion	\$100 million	100,000
4. American Express	1997	\$1.14 billion	\$100 million	100,000
5. American Express	1998	\$1.14 billion	\$100 million	100,000
6. American Express	1999	\$1.14 billion	\$100 million	100,000
7. American Express	2000	\$1.14 billion	\$100 million	100,000
8. American Express	2001	\$1.14 billion	\$100 million	100,000
9. American Express	2002	\$1.14 billion	\$100 million	100,000
10. American Express	2003	\$1.14 billion	\$100 million	100,000
11. American Express	2004	\$1.14 billion	\$100 million	100,000
12. American Express	2005	\$1.14 billion	\$100 million	100,000
13. American Express	2006	\$1.14 billion	\$100 million	100,000
14. American Express	2007	\$1.14 billion	\$100 million	100,000
15. American Express	2008	\$1.14 billion	\$100 million	100,000
16. American Express	2009	\$1.14 billion	\$100 million	100,000
17. American Express	2010	\$1.14 billion	\$100 million	100,000
18. American Express	2011	\$1.14 billion	\$100 million	100,000
19. American Express	2012	\$1.14 billion	\$100 million	100,000
20. American Express	2013	\$1.14 billion	\$100 million	100,000
21. American Express	2014	\$1.14 billion	\$100 million	100,000
22. American Express	2015	\$1.14 billion	\$100 million	100,000
23. American Express	2016	\$1.14 billion	\$100 million	100,000
24. American Express	2017	\$1.14 billion	\$100 million	100,000
25. American Express	2018	\$1.14 billion	\$100 million	100,000
26. American Express	2019	\$1.14 billion	\$100 million	100,000
27. American Express	2020	\$1.14 billion	\$100 million	100,000
28. American Express	2021	\$1.14 billion	\$100 million	100,000
29. American Express	2022	\$1.14 billion	\$100 million	100,000
30. American Express	2023	\$1.14 billion	\$100 million	100,000

Need to determine root causes of traffic problem underscored

By LARNA G. PEREZ, Reporter

The only way to solve the traffic problem is to hit it at the root. Traffic congestion has many inter-related causes," said Professor Lidaasa, a professor at the UP School of Urban and Regional Planning. "We should look beyond its obvious manifestations."

Mr. Lidaasa said the traffic problem in Metro Manila can be analyzed as caused by different socio-economic factors. "One of these is urban sprawl," he explained. "Urban sprawl is the expansion of a city into a metropolitan area. This is partially caused by de-concentration

country. There is a need to decentralize development in the rural areas. If there are no opportunities there, people won't look to highly urbanized cities like Metro Manila," Mr. Lidaasa said.

Mr. Lidaasa said the traffic problem can be effectively alleviated through travel demand management (TDM). He added that TDM, "if done properly," will be the best approach to the traffic problem in Metro Manila.

Mr. Lidaasa said TDM approaches the problem by employing a three-pronged scheme: short-term, medium-

term, and long-term plans. "Short-term plans may be vehicle reduction schemes like odd-even, color coding, car pooling, van pooling, staggered office hours, or any scheme that curbs travel demand," he explained.

Medium-term plans include the construction of mass rail transit like the MRT or any mass transport system that takes six or seven years to build. Long-term plans on the other hand involve developing areas outside Metro Manila. Examples of these are the creation of satellite towns, twin cities, bed towns, and industrial towns.

Economic measures such as increasing the road user tax and the car registration fees may also discourage people from buying cars," Mr. Lidaasa said. Improving the public transport services may also help, he added.

Mr. Lidaasa, however, admitted that this approach is not new. "TDM has been thought before by our policy makers and has been here in a different name," he said.

"However, you may call it, TDM or another name, the bottom line for any approach to be effective is still the need for the politicians will to implement it."

US light vehicle sales decline 2.4%

DETROIT — United States car and light truck sales during the month of November totaled 1,144,445 units with all automakers reporting a 2.4% decline from the 1,172,467 units sold a year earlier.

The seasonally adjusted annual sales rate for the month was 14.85 million units, down from 15.5 million

for domestic cars was 7.03 million units, compared with 7.36 million in November 1994 and 6.92 million in October.

Automakers sold 467,939 domestic trucks in the United States during November, up 0.3% from a year earlier. The seasonally adjusted annual sales rate for domestic trucks was 6.01 million units. — *Rizner*



Most transportation forec mark

MANILA — The basic reason why the government seems to approach the perennial traffic problem in a hit-or-miss manner is its inability to forecast the transportation demand.

In a recent paper titled *Uncertainty in Transportation Demand Forecasting*, Dr. Olegario G. Villoria Jr. of the University of the Philippines School of Urban and Regional Planning highlighted the wide magnitude of errors of various studies in estimating transportation demand.

These "substantial error" of magnitudes perhaps account for the failure of the various approaches like the previous yellow lane, the recent controversial color-coding and the present odd-even scheme, to reduce the monstrous traffic problem in Metro Manila.

The paper, a copy of which was obtained by the *Manila Newsfeatures and Commentaries*, was presented by Villoria during the two-day National Convention on Statistics which ended last Tuesday. Nenita Jimenes and Felicitiano Pangilinan, graduate students of the same school, collaborated in conducting the study.

The paper aims at establishing the need to improve the current practice of transportation demand forecasting by improving data availability, and qualifying and developing of forecasting models that are appropriate in local context.

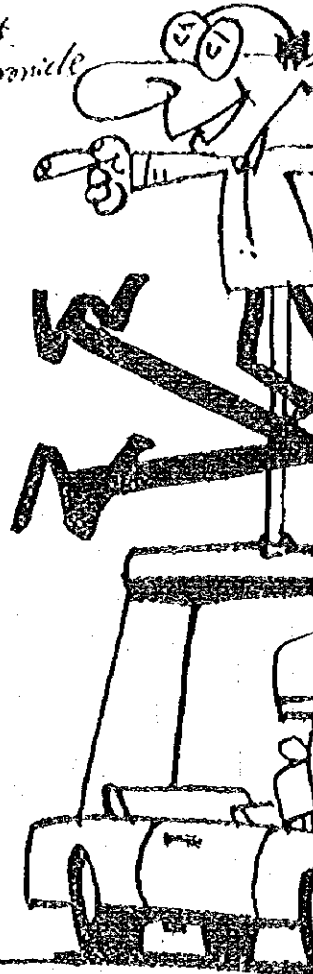
Stressing the need for more precise estimates of future passenger and commodity traffic, Villoria said "the accuracy of such forecast greatly affects the effectiveness of transportation decision-making."

He and the two graduate students, who are all based at National Center for Transportation Studies at UP, reviewed transportation studies and collected traffic forecasts over the last 20 years. These forecasts were compared with the actual traffic data from recent surveys.

"It was found out that the magnitude of errors is substantial and the variabilities are very high," Villoria said.

Based on the comparison of actual traffic in 1990 and the forecast vehicu-

Dec. 9, 1995
Manila Chronicle



No. 26 95

The basic reason why the go-
perennial traffic problem in
is its inability to forecast the

ic for that year, the percentage
nges from nine percent to 290
for national roads and two per-
47 percent for local roads.

ic case of air passenger travel,
ic base year was used to com-
forecast to the actual air pas-
traffic in the country's selected
ports. The percentage of errors
from nine percent to 177 per-

port traffic, both commodity
passenger, the paper used 1985 as
base year. A comparison of the ac-
forecast port passenger traffic for
in selected ports in the country
shows that the percentage of error
ranged from two percent to 95 percent.
percentage of error for cargo
the widest. Also using 1985 as
base year, a comparison of the actual
forecast port cargo traffic in some
country's principal ports indicates
percentage of error mostly ranges
from two percent to 515 percent.

least percentage of error of
and actual traffic was made in
of the Light Rail Transit (LRT-
Line). The percentage of errors
ranged from two percent to 100
percent for the 1985 forecast,
100 percent for the 1990 forecast.

forecasts of passenger traffic and
freight flow are critical inputs to
transportation planning, engineering
and management," Villoria stressed.
"The absolute difference of forecast
and actual traffic is more important to
transportation decision-makers."

He identified several sources of er-
rors in transportation demand forecast-
ing. One of these is "the lack of data
of sufficient detail." The available
data in various sources are "not ap-
propriate to be of use for serious formu-
lation and calibration of transportation
models," he pointed out.

Besides, many theories and model-
ing techniques have been developed but
in the context of industrialized coun-
tries. "It is necessary to formulate
forecasting models which are ap-
propriate to fit local context," he said.

Manila Newsfeatures
and Commentaries

'No car day' campaign to solve traffic mess

IF THE no-car day campaign has been beneficial in Japan, why not in the Philippines?

This piece of advice came from Toshinori Nemoto, a visiting professor of the University of the Philippines, in a discussion paper entitled *Economic Appraisal of Policy Alternatives of Transportation Demand Management: A Case Study in Fukuoka City*.

The paper was presented during the recently concluded First Conference of the Eastern Asia Society for Transportation Studies.

Toshinori Nemoto, a professor at the Faculty of Economics in Fukuoka University, noted that the traditional scheme in tackling traffic congestion in urban areas such as new road infrastructure — a bypass and an overpass — to increase the traffic capacity no longer works.

He pointed out that the scheme has met many difficulties, including the increase of construction cost, owing to expensive land prices in urban areas and longer time to make consensus on new road projects as people have be-

come more concerned with their environment.

Nemoto stressed that the capacity expansion is questioned fundamentally for the reason that the transportation demand is so large that it might absorb the added capacity instantly, resulting in worse environment without any improvement in congestion.

"This is why Traffic Demand Management (TDM), which aims to control

on less crowded routes, control of on-road parking and rearranging bus routes.

Of the six alternatives, he said, the no-car day campaign has been proven as the most beneficial.

Nemoto explained that the no-car day campaign targets both private and commercial cars. The people, however, cannot refrain from commuting by car if they do not have an alternative mode,

questionnaire on car ownership and usage, 20.5% of cars owned by private firms are used for commuting and commercial purposes.

Nemoto expressed the view that if such usage is not allowed, six percent of trips can be reduced.

He also raised the possibility that a proportion of commercial trips by car can shift to other modes, considering that three percent of trips are made for commercial purpose without freight transport. The campaign can also reduce to some extent the trips by private cars used for shopping or other purposes.

Nemoto contended that the no-car day campaign can reduce at least five percent of the transportation demand. Although the no-car day campaign is being conducted on a predetermined day of month now, it is assumed that the moderate five percent can be achieved every working day.

A five percent reduction increases the travel speed from 1.3 kilometers to 25.1 kilometers per hour.

It can also reduce private trips for shopping or other frivolous purposes

nor can the commercial firms cease from transportation freight by car if they have no choice.

In the case study, he said, it seems more feasible to ask private firms not to allow their employees to use their commercial cars for commuting purposes. According to the result of the

the transportation demand, has been introduced as a measure to solve the traffic congestion problem," he said.

Nemoto said TDM is not a fixed method but a set of many alternative ways of control. The set includes a no-car day campaign, parking fee control, ban of peak hour trucking, information

MNC

Manila Starfile
Dec. 20, 1995

Angie cried and said she was of "Mang Turing." After some prodding, the young girl said what happened. Villanueva was arrested on Dec. 5 and Angie and her mother reported the case to the police. The eight-year-old Flor Dy, Angie's sister, then told her mother that Villanueva had also raped her that day in the same place, but in

When asked how many times had she been molested by Villanueva, the young girl said she had already lost count. She said Villanueva would always give her P2 after each incident.

Although he initially denied the young girls' charges, Villanueva has chosen to exercise his right to remain silent.

The case will be raffled off to a Quezon City Regional Trial Court branch tomorrow for trial proceedings.



Why gov't can't kill traffic mess

THE basic reason why the government seems to approach the perennial traffic problem in a hit-or-miss manner is its inability to forecast the transportation demand.

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The paper aims to address the need to improve the current practice of transportation demand forecasting by improving data availability and quality and developing of forecasting models that are appropriate in local context.

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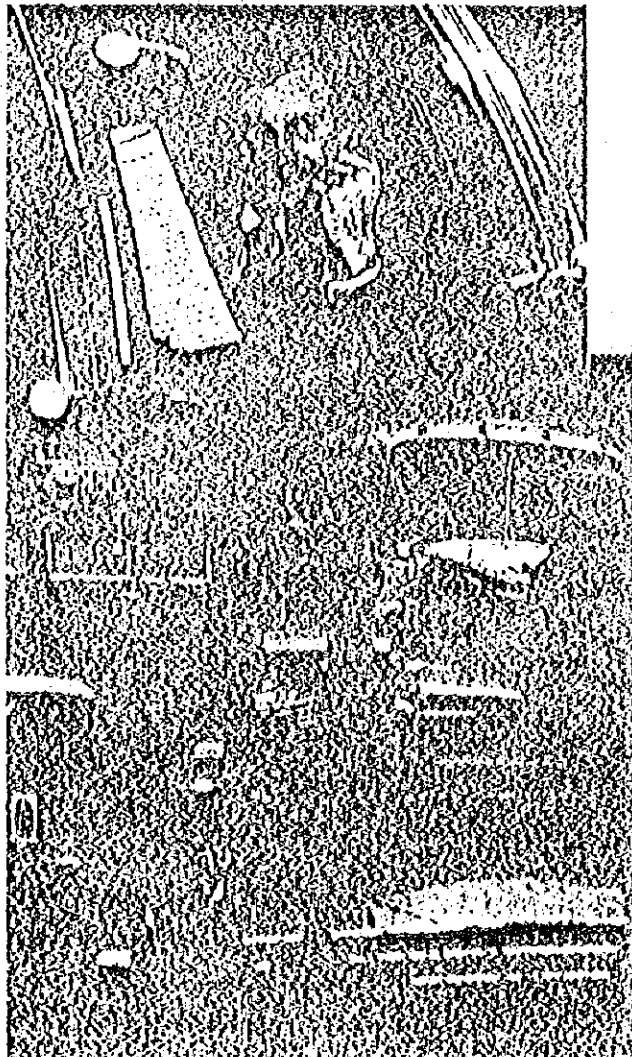
He and the two graduate students, who are all based at National Center for Transportation Studies in UP, reviewed transportation studies and collected traffic forecasts over the last 20 years. These forecasts were compared with the actual traffic data from recent surveys.

"It was found out that the magnitude of errors is substantial and the variabilities are very high," Villoria said.

Based on the comparison of actual traffic in 1990 and the forecast vehicular traffic for that year, the percentage of error ranged from nine percent to 200 percent for national roads and two percent to 447 percent for local roads.

"Forecasts of passenger traffic and commodity flow are critical inputs to transportation planning, engineering and management," Villoria stressed. "But the absolute difference of forecast and actual traffic is more important to transportation decision-makers." He identified several sources of errors in transportation demand forecasting. One of these is "the lack of data with sufficient detail." The available data from various sources are "too aggregate" to be of use for serious formulation and calibration of transportation demand models, he pointed out. *Eloy Calimogul Manila Newsfeatures and Commentaries*

TNET IN TIME



**Immigrations man
behind media war**

Green light for computerized traffic signals raises doubt

By Vina Datlingulnoo
Philippine Center
for Investigative Journalism

THE PUBLIC works department is rushing installation of computerized traffic lights which it says will cut travel time in Metro Manila by at least 20%. It wants the system ready by November, in time to impress the gathering of leaders of the Asia-Pacific Economic Cooperation (APEC).

The project, which will cost P540 million, entails the upgrading of the

existing traffic control system in over 400 intersections along the city's major thoroughfares, setting up traffic lights in 30 more intersections, and other traffic engineering measures in municipalities adjacent to Metro Manila. All the project needs is the green light from Malacañang.

But critics, including a high official of the department's Traffic Engineering Center (TEC) and members of a government technical board assigned to study the proposed system, are calling for a brake on the project. They say that there is no as-

surance the new system can do any more than what the present system can already do.

Investigation by the Philippine Center for Investigative Journalism (PCIJ) shows that no study was conducted to see if the new system will actually work in Metro Manila. Neither was the project officially bid out. And it was suspiciously designed to suit the requirements of a specific contractor, AWA Ltd, of Australia.

Moreover, the National Economic and Development Authority (NEDA)

board approved the project in a resolution in August 1995, in time for a state visit by President Ramos to Australia where he was to witness the signing of a memorandum of understanding between the public works department and AWA Ltd.

Public works officials admit they chose AWA even without a study of whether its system will work in Metro Manila's perennially clogged intersections. Because AWA's system appeared to be working in Cebu and in other cities around

Continued: Page

UP study confirms worsening traffic

pa1

In Metro Manila, commuters rely heavily on passenger jeepneys and buses. More than 60% of total daily trips made by Metro Manila residents are by public utility vehicles. Commuting in Metro Manila, however, has become a nightmare due to over-crowding and pollution-causing, smoke-belching vehicles. This is aggravated by the frequent stopping of passenger jeepneys and buses that disrupts the flow of traffic. It takes almost two hours to get to Makati from Plaridel, Quezon City; the stretch along the Manila road in front of SSM Megatall alone takes about 20 minutes, long enough for passengers to have a coffee break because that's just how long it takes for the buses to stop.

In an effort to alleviate this situation, the National Center for Transportation Studies (NCTS) of the University of the Philippines has been conducting studies on transportation which have in fact confirmed the worsening traffic problems described above.

The study, entitled "Effects of Uncontrolled Loading and Unloading of Jeepneys and Buses on the Capacity of Signalized Intersections" and made by Dr. Ricardo G. Sison, pointed out that the indiscriminate frequent loading and unloading of passengers by jeepneys and buses even at designated stops is one major cause of traffic congestion. That the stops are not properly located (with respect to the intersection) as does the lack of bays complicates the problem to ease the traffic congestion.

Uncontrolled loading and unloading allows drivers to stop either before or after an intersection to enable passengers to board or alight from the vehicle. In Metro Manila, this problem worsens when no traffic enforcers are present or even when they are in the scene but concentrate only on the flow of traffic at the intersection, ignoring other related activities such as loading, unloading, and crossing of pedestrians.

The study cited the following factors as affecting the stopping behavior of jeepney and bus drivers: the presence of many areas where commuters gather to wait for their ride, the practice of drivers of waiting for their passenger vehicles to get filled before plying their routes, and the lack of strict traffic enforcers. The real reason for this behavior, according to the study, is the desire to earn more money. In the so-called boundary system, jeepney drivers and operators agree that operators will receive a fixed amount daily, which prompts jeepney drivers to pick up as many passengers as they could and thus earn the "boundary" as fast they can in order to bring home more money. The same is true for bus drivers under the commission system.

Free-stopping zones are far more common in Metro Manila whereas designated stops are less common and not well enforced. Along major roads, jeepneys stop at designated locations only. However, due to the jeepney's peculiar design, any passenger can easily get on or alight whether or not it is moving. This is a common sight at the approach of an intersection when the traffic light is red.

Enforcement of bus loading and unloading regulations is very strict at some intersections along major arterials. Bus doors have to be close while stopping at the approach. However, the unruly behavior of drivers becomes readily observable particularly after they cross the intersection when each of them tries jockeying for position at points where there are a number of waiting passengers. Cutting each other's path is not uncommon.

Last February 25, 1986, NCTS researchers surveyed the Commonwealth Avenue-Iglesia ni Cristo intersection in Quezon City. The next intersection was 1.5 km away and there was no observed effect on the intersection under study. The latter was characterized by a high volume of jeepneys and buses stopping downstream right after crossing the intersection. Video coverage of the intersection was taken during morning peak hours and was analyzed with the help of a microcomputer. The researchers observed that there was always long queuing at the intersection approach. The absence of a loading and unloading bay before and after the intersection was noted. The exit was composed of three lanes; however, jeepneys and buses often used the outer lane for loading and unloading. Ten out of eleven cycles were observed to have outer lane blockage.

Because of the frequent loading and unloading of passenger jeepneys and buses at intersections, the NCTS recommends that the dropping off and picking up of passengers, which causes jeepneys and buses to stop frequently, should be regulated at these areas during peak hours. Every intersection must be carefully studied and unless it can be shown to be untrouble, jeepney and bus stops should be located before the intersection. However, when the green signal flashes, drivers should be instructed to proceed and cross. The next stop should be far enough, about 60 to 100 meters.

The study stressed that strict law enforcement and penalties against erring drivers must be enforced. Ways to instill discipline not only in the minds of drivers but in the minds of commuters must also be initiated through the mass media.

The NCTS also endorses the construction of jeepney and bus bays, which are curved paths inside major thoroughfares where buses and jeepneys stop to gather passengers, in order to allow other vehicles to pass

NCTS study confirms worsening traffic situation

*Journalist
University of the Philippines
Abusobon System
M. X. No. 7 Aug. 1986*



In Metro Manila, commuters rely heavily on passenger jeepneys and buses. More than 60% of total daily trips made by Metro Manila residents are by public utility vehicles. Commuting in Metro Manila, however, has become a nightmare due to over-crowding and pollution-causing, smoke-belching vehicles. This is aggravated by the frequent stopping of passenger jeepneys and buses that disrupts the flow of traffic. It takes almost two hours to get to Makati from Philcoa, Quezon City; the stretch along the Manuela mall in front of SM Megamall alone takes about 20 minutes, long enough for passengers to have a coffee break.

In an effort to help alleviate this situation, the National Center for Transportation Studies (NCTS) of the University of the Philippines has been conducting studies on transportation which have in fact confirmed the worsening traffic problems described above.

A study done by Dr. Ricardo G. Sigua entitled "Effects of Uncontrolled Loading and Unloading of Jeepneys and Buses on the Capacity of Signalized Intersections" pointed out that the indiscriminate, frequent loading and unloading of passengers by jeepneys and buses even at designated stops is one major cause of traffic congestion. That the stops are not properly located (with respect to the intersection) complicates the problem of easing the traffic congestion as does the lack of bays.

Uncontrolled loading and unloading allows drivers to stop either before or after an intersection to enable passengers to alight or board the vehicle. In Metro Manila, this problem worsens when no traffic enforcers are present or even when they are on the scene but concentrate only on the flow of traffic at the intersection, ignoring other related activities such as loading, unloading, and crossing of pedestrians.

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and bus drivers: the presence of many areas where commuters gather to wait for their ride, the practice of waiting for their passenger vehicles to get filled before plying their routes, and the lack of strict traffic enforcers. The real reason for this behavior, according to the study, is the desire to earn more money. In the so-called boundary system, jeepney drivers and operators agree that operators will receive a fixed amount daily, which prompts jeepney drivers to pick up as many passengers as they can so that they can earn the "boundary" fast and thus bring home more money. The same is true for bus drivers under the commission system.

There are far more free-stopping zones in Metro Manila than designated stops which

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Because of the frequent loading and unloading of passenger jeepneys and buses

Indiscriminate frequent loading and unloading of passengers by jeepneys and buses even at designated stops is one major cause of traffic congestion.

are not well enforced to begin with. Along major roads, jeepneys stop at designated locations only. However, due to the jeepney's peculiar design, any passenger can easily get on or alight whether or not it is moving. This is a common sight at the approach of an intersection when the traffic light is red.

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The study stressed that strict law enforcement and penalties against erring drivers must be enforced. Ways to instill discipline not only in the minds of drivers but in the minds of commuters must also be instituted through the mass media.

The NCTS also endorses the construction of jeepney and bus bays in order to allow other vehicles to pass and thus improve traffic flow. These bays are curved paths beside major thoroughfares where buses and jeepneys stop to gather passengers.

CZF

Proper parking spaces needed in traffic management

By LIZBETH MILARPIS

"Parking is the key to traffic management and in limiting the use of private vehicles," said Dr. Ricardo G. Sigua, director of National Center for Transportation Studies, University of the Philippines.

Dr. Sigua spoke before a gathering of investors, urban planners, commercial developers, and building managers during the Skyport Project Business Forum last week at the Hotel Intercontinental Hotel.

Dr. Sigua said parking affects the traffic safety, energy consumption, environment, the cost of travel and delivery of goods.

He said the pedestrians' safety can be enhanced by proper parking because illegal parking can obstruct their vision of oncoming vehicles.

On the other hand, providing parking spaces can affect energy consumption as time and money is wasted when motorists have to search for a parking space.

Parking he said also affects trip frequency and distribution. While home-to-work trips are not affected by parking measures, shopping trips are, he said.

He said parking can also influence modal split, or the change of mode of transportation from private to public. He pointed out that providing proper park-

ing spaces near congested areas could lessen the number of private cars on the road, without affecting the usefulness of the trip and the activities that are executed.

At present, he said that the limited parking spaces has affected the volume and capacity ratios of the road network. Volumes are influenced by the distance traveled while searching for a parking place.

On the other hand, the capacity of the street network is often reduced by on-street parking. Removing parked vehicles from the street network to off-street facilities can improve traffic conditions considerably.

Also, illegal parking tends to be an even more serious obstruction to traffic flow. For example, if spaces set aside for delivery vehicles are occupied by parked cars, vehicles delivering goods can double park and therefore stop traffic flow completely.

Dr. Sigua recommended that a more efficient way of providing parking facilities must be carefully considered.

Meanwhile, it was learned that from Sept. to Oct. alone, there are 205 cases of illegal parking violations recorded from the Northern, Eastern, Southern, Western and Central Po-

lice Districts. This was according to Col. Virgilio Paz, Traffic executive director of the Metro Traffic Force.

The forum was sponsored by Toyo Construction Co. Ltd. of Japan, IHI-Ishikawajima Harima Heavy Industries, and Parking Management Organization of Japan.

The Skyport Project introduced the elevator parking technology which is a safe and efficient car parking technology that is used in Japan.

世銀による「メトロマニラ管理計画調査」におけるNCTSに関する記述（評価提言）

Metropolitan Manila Management Study (MIMS)

7.0 TRANSPORTATION AND TRAFFIC EDUCATION

The operation of the transportation system depends on the performance of , and the interaction among the three main components, namely, MAN, VEHICLE and the ENVIRONMENT. The main area of concern of transportation and traffic education is the improvement of the performance of the MAN component, particularly in his/her interaction with the VEHICLE and ENVIRONMENT. There are also human resource development efforts directed towards the improvement of the two other components mentioned: the VEHICLE and the ENVIRONMENT.

The various actors in the transportation and traffic system are as follows:

- Drivers
- Operators
- Traffic Law Enforcers
- General Public which includes the pedestrians, passengers, vendors, etc, and
- Transportation/Traffic Planners, Engineers and Managers

7.1 Agencies Involved

The agencies and organizations involved in the conduct of training programs, seminars, and information dissemination campaigns are summarized in Table III-7-1, and are discussed below:

7.1.1 National Agencies

Department of Transportation and Communications

The DOTC through its Land Transportation Office (LTO) and the recently created Center for Traffic Education (CTE) conducts training, seminars and information dissemination activities on transportation and traffic in Metro Manila.

Land Transportation Office

The LTO being the agency in charge of issuing driver's license, conducts seminars for applicants for driver's license, and a re-training program for the apprehended drivers whose driver's license were confiscated. This agency cooperates with the CTE, MMA, NCTS and other agencies in the design and conduct of driver related training programs and seminars.

The LTO has likewise published and disseminated information leaflets and reading materials for drivers, the most notable of which is the mass oriented comics called "Ang Brayber na Pinoy". It also has published a compilation of traffic laws pertaining to transportation and traffic. Some years ago, the LTO came out with a drama series in radio dealing with the life of a jeepney driver.

The LTO is also in-charge with the accreditation and control of driving schools in the country. It sets the curriculum of the courses being offered in the said schools. Ongoing is the revision of the said curriculum in order to upgrade their standards.

Center for Traffic Education

The CTE was established by DOTC through Department Order No. 94-808 last August 3, 1994. This is in response to Memorandum Order No. 223 issued by the President of the Philippines for the re-education of government employed drivers in Metro Manila. CTE is a spin-off from the DOTC Action Center which launched a nationwide education program on "Road Use and Road Ethic". As of December 8, 1994 there were already 8,897 recipients and participants in this education program of the CTE, broken down as follows:

TABLE III-7-2
Summary of Participants on "Road Use and Ethics"

GROUP	NUMBER
Government Offices	2,654
Private Companies	384
Public Utility Drivers	3,676
Civic Organizations	2,283
TOTAL	8,897

The CTE also cooperates with Office of Transportation Cooperatives (OTC), another agency of DOTC, in the conduct of the road ethics seminars for drivers and operators of accredited transportation cooperatives.

The CTE in cooperation with LTO has also published and disseminated flyers such as:

- "Habits and Techniques Of A Good Driver"
- "Tips To Tricycle Operators and Drivers"
- "Tips To Taxicab Operators and Drivers"
- "Tips To Jeepney Operators and Drivers"
- "Tips To Bus Operators and Crew"
- "Tips To Pedestrians"
- "Tips To Commuters"

National Center for Transportation Studies (NCTS)

The NCTS is a unit of the University of the Philippines Diliman. The NCTS has recently started offering master's program on Transportation Planning, and Transportation Engineering in cooperation with other academic units of UP. The NCTS conducts 18 week Regular Training Program (RTP) on Transportation Planning, Traffic Engineering, and Traffic Management for Traffic Law Enforcers. This RTP enters to technical and highly professional personnel in transportation. Out of about 1,210 graduates of RTP since 1978, only 18 come from the private sector; the rest are from government agencies. More than 70% of the participants are from Metro Manila based offices. The breakdown of graduates by specialization is shown below:

TABLE III-7-3
Graduates of Regular Training Program of NCTS

Course	Number
Transportation Planning	318
Traffic Engineering	333
Traffic Management for Law Enforcers	559
TOTAL	1,210

From time to time the NCTS offers short and basic training programs, one of which is the basic course for traffic law enforcers and traffic aides. Because of its limited budget and its academic personality, the thrust of NCTS training activities is more on the higher level type of training program. The NCTS just assists other government agencies by designing the program of instruction for their training courses and by developing the needed lecture materials. The training program/seminar on basic traffic law enforcement currently being conducted by MMA and PNP-TMC was designed by the NCTS. Almost all of the lecturers in these programs are graduates of the 18-week Regular Training Program of NCTS.

Philippine National Police Traffic Management Command (PNP-TMC)

The PNP TMC conducts basic courses on traffic law enforcement, primarily for its own personnel dispatched in the field. Together with MMA-TOC, the TMC launched a unified training program for enforcers. This program has two levels; the First Level involves the training of enforcers, and the Second Level involves the training of traffic enforcers by trainers trained in the First Level.

Philippine Information Agency

The PIA provides the media assistance for information dissemination pertaining to transportation and traffic matters. It has launched an awareness program on transportation and traffic problems in Metro Manila through a daily radio program where current issues and programs are discussed. The PIA also provides the link of the government agencies tasked to improve the transport and traffic in Metro Manila with other members of the press for the needed media coverage.

One of PIA's major contributions to date are the production and distribution of information flyers used on education caravans.

Department of Education, Culture and Sports (DECS)

The contribution of DECS is more on long term reorientation of the general public in terms of discipline, road courtesy and road safety. It has started integrating traffic education topics in its existing subjects at elementary and high school levels.

*Metropolitan Manila Management Study (assisted by W.D.)
Transportation and Traffic Management Secto.*

V. Recommendations J.J. Jk.H. Metropolitan Manila Management Study (MMMS)

6. Traffic Education

Traffic Education and Information are important aspects of traffic management. Reshaping of discipline and road courtesy are the primary responsibility of parents and schools, and is a national concern. This will be a long term process, and the primary organizations (outside of the home) which can effectively address this are the church and the schools. The DECS already has already some subjects in elementary and high school where traffic education is covered, however they lack the expertly prepared materials on this field. The DECS can initiate a project on its own to develop materials with assistance from transportation agencies. What the MMMDA can contribute will be the development of materials for urban setting and for the understanding of traffic rules and regulations, and the proper use of transport facilities which are unique to Metro Manila.

The primary concern of the MMMDA is the promotion of road safety and courtesy among road actors: drivers, pedestrians, commuters, traffic law enforcers, and the general public. The education of drivers can be addressed by the Land Transportation Office (LTO) of the DOTC, and by the driving schools. There is already an on going project by the LTO and the DOTC to upgrade the standards of driver education and the curriculum of the driving schools. What is to be done is the strict implementation of the requirement for driver's training and education prior to issuance of driver's license. The MMMDA must however, take the lead in the re-training of drivers apprehended in Metro Manila. There must be an understanding between MMMDA and LTO that LTO will not re-issue the license of apprehended drivers unless they pass the MMMDA retraining programs.

The MMMDA must maintain a training center manned by well trained trainers. The current trainers from present TOC can be absorbed for this task.

The MMMDA Transport and Traffic Office will also regularly conduct basic courses for traffic law enforcers. A uniform training material will be prepared for this purpose. The MMMDA shall maintain a pool of regular lecturers for this purpose.

The MMMDA must work closely with the National Center for Transportation Studies at UP for the training and advance education of their trainers. The NCTS can likewise be tapped for the development and upgrading of teaching aids and materials.

Training for transportation planners, traffic engineers and other technical staff of MMMDA and other agencies can best be offered by the NCTS. What is important is to establish the link between MMMDA and NCTS in order for NCTS to include the requirements of MMMDA in its programs, and to upgrade its materials using MMMDA gathered data.

One of MMMDA's primary responsibility is the development and production of information materials for mass media pertaining to road discipline and courtesy, proper use of the roads and other facilities and information materials on on-going traffic engineering and enforcement projects requiring cooperation from the general public. The MMMDA Transport and Traffic Office will be in the best position to do this since it also has control over traffic engineering and management, and enforcement units in Metro Manila.

(資料20)

MMPAの "Color Coding Scheme" 受入に対するNCTSのReaction (政策へのReaction例)

13 October 1995

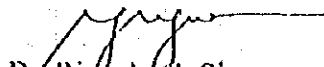
Hon. Prospero I. Oreta
Chairman, Metro Manila Development Authority
MMDA Bldg., EDSA corner, Orense St.
Guadalupe, Makati, Metro Manila

Dear Chairman Oreta:

Please find attached copy of our Position Paper regarding the 'Oplan Bukas Lansangan 2000 Project C-Day', a traffic reduction scheme set to be implemented on Monday, October 16, 1995.

We sincerely hope for your consideration regarding our stand on this matter.

Very truly yours,


Dr. Ricardo G. Sigua
Acting Director

POSITION PAPER on *Oplan Bukas Lansangan 2000 Project C-Day*
National Center for Transportation Studies
University of the Philippines

The traffic plan "Oplan Bukas Lansangan 2000 Project C-Day" is scheduled to take effect on Monday, October 16, 1995. In a nutshell, this traffic strategy aims to ease the traffic of Metro Manila this coming Christmas season by reducing the vehicular volume. Public vehicles are banned from plying all roads in Metro Manila from 5:00 a.m. to 10:00 p.m. once a week in accordance with their color-coded stickers. The private vehicles, on the other hand, are banned from plying EDSA and Monumento-Fall from 7:00 - 9:00 a.m. and 5:00-7:00 p.m. on their assigned C-Day.

The objective of implementing traffic schemes is to move more people in less time. But once the "Oplan Bukas Lansangan 2000 Project C-Day" would take effect, the projected outcome would be the opposite. If the number of buses is reduced by 1/5, there will be longer lines of commuters waiting for available buses. In short, the travel time of passengers will be longer.

Project C-Day defeats the purpose of Transport Demand Management. TDM is a very popular traffic scheme that is being practiced in many cities around the globe. Its major concern is to maximize the use the existing transportation infrastructure. In other words, its objective is to maximize the number of passenger trips under a certain capacity of the infrastructure. Thus, buses should be given priority over private vehicles because they transport more people in a given time. At this point in time, the number of buses and other public utilities in Metro Manila barely meet the transportation demand of the public. The introduction of the "Oplan Bukas Lansangan 2000 Project C-Day" would create problems of mobility on the side of the riding public. The number of private cars, on the other hand, is so big that they cause traffic problems. Traffic measures should monitor and focus more on private cars.

This traffic scheme is elitist in its stand. The middle-class and the economically disadvantaged would be affected the most by this traffic measure. The riding public will have 4/5 of the original number of buses to ride on weekdays. On the other hand, the rich people who own more than one car can just rotate the use of their cars on their C-days. Moreover, car owners have the option of taking alternative routes to their destinations. The scheme does not really solve the traffic problem but merely results in the relocation of the traffic congestion.

With these reasons, we would like to request for the postponement of the implementation of the said reduction scheme until a careful study has been done.

(資料21)

ASEANにおける人材育成プログラムのNCTSの役割

**FIRST MEETING OF THE ASEAN WORKING GROUP
ON HUMAN RESOURCES DEVELOPMENT
IN TRANSPORT AND COMMUNICATIONS**

Jakarta, Indonesia 2 - 3 September 1996

A N N E X F

**ASEAN SECRETARIAT PAPER:
ESTABLISHMENT OF REGIONAL CENTRES
OF EXCELLENCE IN ASEAN**

PROJECT TITLE	PROJECT DESCRIPTION	STATUS (15th SCLT, 15-17/9/1992, Manila)	STATUS (16th SCLT, 19-21/7/1993, Singapore)
<p>Human Resources Development:</p> <p>a. Establishment of Regional Centres of Excellence</p>	<p>Project will establish centres of excellence to provide training in related fields as follows:</p> <ul style="list-style-type: none"> - Road Transport Training Centre in the Philippines; - Cursey Transportation Training Centre in Malaysia; and - Ferry and Inland Waterways Training Centre in Indonesia 	<p>The RTTC in the Philippines had been established with bilateral assistance from Japan. Philippines is submitting plans</p>	<p>The RTTC in the Philippines had been established and programme under this centre was funded under bilateral assistance from Japan.</p> <p>At the 15th SCLT Meeting in June 1992, Philippines reported that efforts were being undertaken to strengthen its Training Centre on Road Transportation. Funding was also being sought from JICA for a new course entitled "Transport Development Management Course for Executives"</p>

JICA