The FS and Implementation Support on the CALA East-West National Road Project

FOURTH STAKEHOLDERS' MEETING

El Cielito Inn, Sta. Rosa, Laguna

09 December 2005

ATTENDANCE

Name	Designation	Agency	Telephone #	Signature
Carmelino J. Catayong	proj. coordinator	dpwh pmo-fs	9295615	
Tomoo Aoki		JICA Study Team		
E. YOKOTA	Highway Eng.	JICA		
Nanette T. Abilay		JICA Study Team		
FREDDIE GALANG	Highway	Study Team		
Elvin Madrid	Envt./Relocs.	DPWH/ PMOFS	4810158	
RENE SANTIAGO				
Generoso S. Alcantara	Engr III	PMO-FS, DPWH	4810159	
Bella Asuncion	Eng. IV	PMO-FS	928-7615	
Bing E. Pallana	Resettlement Spec	JICA Study Team	6365197	
Lynn Sison	LGU/Study Team	"	"	
Wilhelmina Villanueva				
Rosenia Nieves	secretary	CALAPMO-FS	926-0484	
JOSEPH L. CABAL	"	" "	926-04-84	
ROMY LESCANO	Economist III	PMO-FS, DPWH	928-56-15	
Eng'r Raul				

The FS and Implementation Support on the CALA East-West National Road Project

FOURTH STAKEHOLDERS' MEETING

El Cielito Inn, Sta. Rosa, Laguna

09 December 2005

ATTENDANCE

Name	Designation	Agency	Telephone #	Signature
Danilo S. Arzola	Mun. Assessor	Binan	511-0387	
SALVADOR C. TAN	URBAN PLANNER	AYALA LAND, INC	841-5833	
Hon. Gat Alatiit	Mun. Councilor	Sangguniang Bayan	0920 923-5417	
COUN. MEL LAD	S.B.		09189452766	
Melito A. CAGUBLAN	MPDC Housing Coordinator	Binan Council	0919 298-3698	
Alexander M. Tamayo	MPDC STAFF	MPDC Binan Council	511-3725	

Framework on Preparation of the Optimum Project Plan

Data Collection And Survey	Analysis and Evaluation	Planning and Recommendation	Stakeholders Consultation & Seminar
		Formulation of Alternative Plans 1 Setting of alternative project plans 2 Collection & measurement of each indicators of the alternative project plan	3rd Stakeholders' Meeting
	Evaluation of traffic improvement Impact by the project		
Support of Environmental Impact Assessment Examination and preparation of TOR for environmental & social consideration Implementing support to the environmental & social consideration survey			
Support in EIA procedures, such as tagging			4th Stakeholders' Meeting
		Selection of Optimum Project Plan Support of stakeholders' meetings Correction / modification	

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On-going Works on the ESC Study

- Environmental Baseline Study
  - Field measurement surveys: air, noise/vibration, water
  - Secondary data collection

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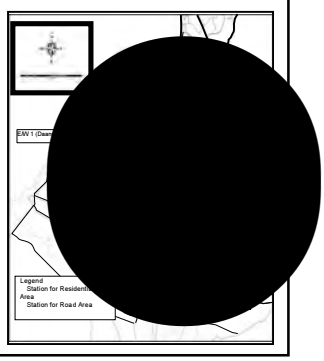
On-going Works on the ESC Study

Environmental Baseline Study
Field Measurement Surveys (Air, Noise/Vibration)



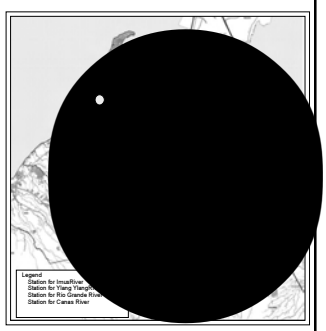



On-going Works on the ESC Study

Environmental Baseline Study
Field Measurement Surveys (Water)

Water Quality Parameters :

- pH (acidity)
- Temperature
- Total Suspended Solids
- River Flow



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On-going Works on the ESC Study

- Environmental Baseline Study
  - Field measurement surveys: air, noise/vibration, water
  - Secondary data collection
- Social Survey
  - Focus group discussion (Barangay consultation)
  - Perception survey
  - Household inventory survey for resettlement (100% survey for potential households to be resettled for ROW acquisition)

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Consensus Building Process for Implementation of the Proposed Projects

- Focus Group Discussion (Barangay Consultation)
  - Agenda: Outline of the proposed projects, Proposed alternative road alignments, Coordination on social surveys, Q&A (discussion)
  - Participants: Barangay captains and councilors, Project-affected persons, Residents, Peoples organizations (PO), Non-governmental organizations (NGO)
  - Acceptance of the project by Barangay =>Endorsement of the Acceptance of the Project by Municipalities and Provinces

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Consensus Building Process for Implementation of the Proposed Projects

- Focus Group Discussion (Barangay Consultation)

Issues & Concern
- Is the alignment final?
- Will there be compensation for affected assets? When?
- Is there a ready relocation site?
- How will existing business establishment be compensated?
- Will there be alternative income source in the relocation site?
- What documents are needed as proof of ownership?

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Consensus Building Process for Implementation of the Proposed Projects

- Perception Survey
  - Sampled households from project-affected barangays

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Consensus Building Process for Implementation of the Proposed Projects

- Household Interview Survey for Resettlement
  - All potential households to be resettled
  - Incl. questions on perception of the project

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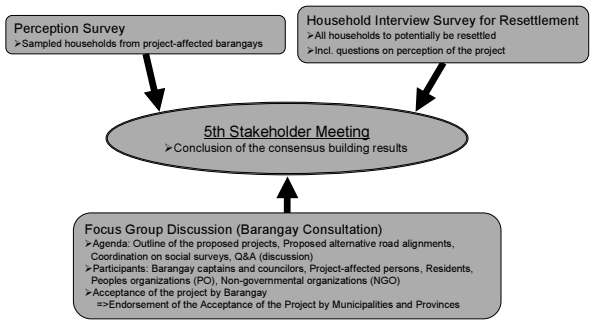
Consensus Building Process for Implementation of the Proposed Projects



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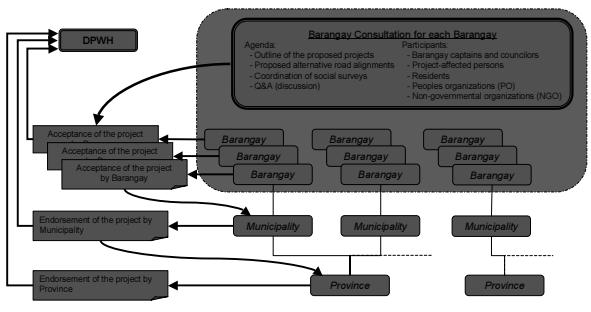
Consensus Building Process for Implementation of the Proposed Projects (Barangay Consultation)



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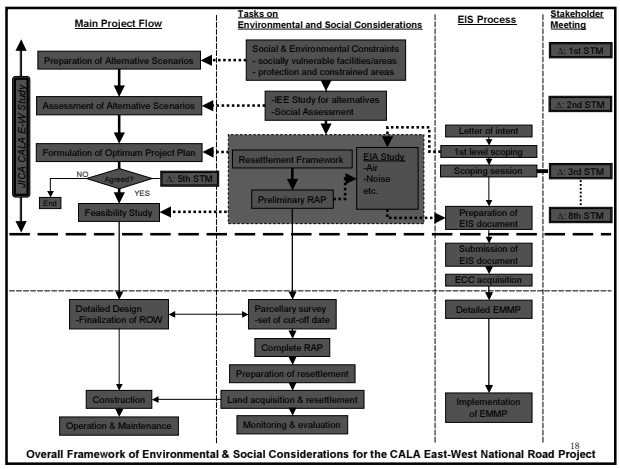

Overall Framework of Environmental & Social Considerations for the CALA East-West National Road Project

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DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS (DPWH)
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE FEASIBILITY STUDY AND IMPLEMENTATION SUPPORT ON THE CALA EAST-WEST NATIONAL ROAD PROJECT (CALA East-West)

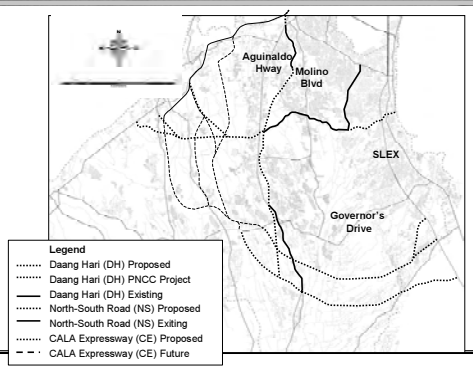
4th Stakeholder Meeting
Session 2: Evaluation of Road Alternative Alignments

7 December 2005

Topics

1. Background
   1.1 Selected Priority Projects
   1.2 Alternative Alignments
2. Criteria for Evaluation of Alternative Alignments
3. Implementation Support
4. Workshop Guidelines

Selected Priority Projects



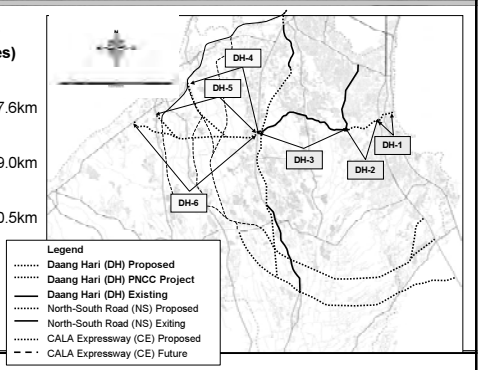
Daang Hari Road Extension (DH)

National Highway (30m-ROW, 6 lanes)

Alternative 1
DH-1~3+DH-4 = 27.6km

Alternative 2
DH-1~3+DH-5 = 29.0km

Alternative 3
DH-1~3+DH-6 = 30.5km



DH Road Description: Common Alignment

Road Segment	Alignment Description
DH 1: SLEX to Old National Road	The alignment lies within the heavily built up area in Poblacion Muntinlupa traversing a generally flat to gently rolling terrain adjacent to residential area beginning from the Old National Road and intersecting Muntinlupa. The segment spans approximately 1.68 km.
DH 2: Muntinlupa to Bacoor Boundary	The alignment runs along the open area near the Muntinlupa Bilibid Prison, crossing over the South Luzon Tollway until it joins the existing Daang Hari Road at the boundary of Bacoor and Muntinlupa. This alignment has a length of 3.17 km and traverses a gentle rolling terrain.
DH 3: Bacoor Boundary to Imus	The alignment uses the existing Daang Hari Road, with a length of 10.40 km. The line runs along residential areas in Bacoor and Imus, Cavite. The existing pavement of Daang Hari Road ends at the intersection of Aguinaldo Highway while the line runs continuously towards the western side of Imus using the existing Subdivision Road near Salitran.

DH Road Description: Alternative Alignment

Road Segment	Alignment Description
DH 4: Imus to Gen. Trias/Rosar	The alternative lines traverse the open raw land between Imus (starting from Aguinaldo Highway) and Gen. Trias. DH – 4 spans 9.00 km and initially runs in a westerly direction then veers northwest toward the Export Processing Zone Area in Rosario as it intersects the Rosario – Noveleta Diversion Road.
DH 5: Imus to Tanza 1	This alignment shares the same starting point as DH4. It has a length of 8.75 kms. and traverses westerly along open raw land of the same Imus and Gen. Trias municipalities. In Tanza, it slightly veers in a northwesterly direction for a short distance and then interfaces with the existing Tanza – Gen. Trias Road.
DH 6: Imus to Tanza 2	DH 6, is a variation of DH – 5 but extends farther to the west toward the Tanza area and connects with the Tanza – Naic – Caylabne Road. This proposed road alignment alternative measures approximately 10.40 km in length and likewise passes through an open area with relatively flat to gently rolling terrain.

Daang Hari Road Extension

	Advantage	Disadvantage
DH-4 : Imus to Rosario (EPZA)	• Provides direct access to the Export Processing Zone in Rosario and alternative route to the heavily congested section of Aguinaldo Highway from Rosario and Bacoor to Imus. • Comparatively shorter route length than that of DH-6 but a little longer than that of DH-5.	• Will disturb more roadside structures during construction. • Requires longer pipe network as the locations of outfall for surface runoff discharge are far from each other. • Though desirable geometric design conditions could be satisfied as the segment traverses open area, the alignment has more bends than the other alternative lines requiring more road traffic safety devices than the ordinary condition when the alignment is almost straight. • Total project capital requirement is higher than DH-5.
DH-5 : Imus to Tanza (Tanza – Gen. Trias Road)	• Offers more efficient linkage to the other road networks such as the Tanza – Gen. Trias Road and Tanza – Naic – Caylabne Road, which lead to various ongoing residential developments, tourist destinations, leisure parks and resorts. Located midway between Bacoor and Naic, the alternative line serves more traffic generators even those coming from the Export Processing Zone in Rosario. • The alternative line has the shortest route length among other alternatives. • Requires the least project capital requirements due to its advantageous location in terms of waterway crossings, road intersections and fewer disturbances to existing roadside developments.	• Requires improvement and widening of the short section of the existing Tanza – Gen. Trias Road to maintain traffic convenience and smooth traffic flow along the intersection.

Daang Hari Road Extension

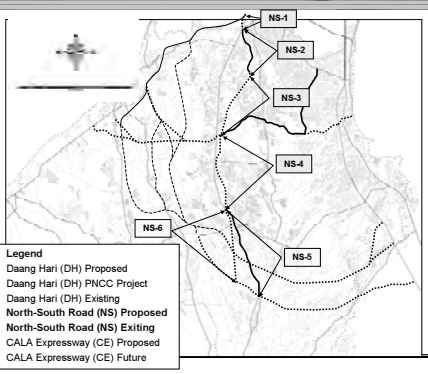
	Advantage	Disadvantage
DH-6 : Imus to Tanza (Tanza – Naic – Caylabne Road)	• Likewise with DH-5, this segment offers more efficient linkage to the other road networks such as the Tanza – Gen. Trias Road and Tanza – Naic – Caylabne Road, which lead to various ongoing residential developments, tourist destinations, leisure parks and resorts. Located midway between Bacoor and Naic, the alternative line serves more traffic generators even those coming from the Export Processing Zone in Rosario.	• Has the longest route length among the other alternatives and consequently has the highest total project capital requirement. • The alignment entails sharp bends as it approaches the intersection of Tanza – Naic – Caylabne Road.

North-South Road

National Highway (30m-ROW, 6 lanes)

Alternative 1
NS-1~4+NS-5 = 28.3km

Alternative 2
NS-1~4+NS-6 = 26.7km



North-South Road: Common Alignment

NS 1: R1 to Bacoor	This road segment starts as it interfaces with the existing R-1 Expressway (previously Manila Cavite Coastal Road) at a bend as the latter connects with McDonald Jct.- Aguinaldo Highway. From this junction, the alignment runs through the shoreline and across salt ponds for about 1.0 km while it bends and connects with McDonald Jct. – Aguinaldo Highway. Then, the proposed road alignment uses the same existing road (McDonald Jct. – Aguinaldo Highway) for about 440 meters and terminates as it intersects the main Aguinaldo Highway. The road segment has a length of 1.39 km.
NS 2: Bacoor to Molino Boulevard	The segment commences at the terminus of Segment. From the junction of Aguinaldo Highway, the segment runs along the Molino Boulevard alignment for about 4.61 km. This line traverses subdivision areas and the construction of the remaining section of Molino Boulevard along this area has yet to be completed. The terrain is generally flat and the surrounding area has been well developed.
NS 3: Molino Blvd. to Daang Hari	The alignment veers away from the existing Molino Boulevard alignment along the south west direction cutting across the existing subdivision areas for about 2 km after which, it runs through an open raw land area until it bends near Aguinaldo Highway and continuously runs alongside until it reaches and connects with existing Daang Hari Road. The road segment measures about 5.1 km in length.
NS 4: Daang Hari to Gov. Drive	From Daang Hari intersection, the road alignment creeps through the open area alongside Aguinaldo Highway until it cuts across roadside residential and commercial development along Salitran Road. The alignment continues to move southerly almost parallel to the Aguinaldo Highway and along the still vacant areas east of the existing highway towards Palapala in Dasmarinas. The road alignment intersects again with Aguinaldo Highway as this segment terminates and changes direction west of the same highway. From the intersection with Daang Hari, the segment runs approximately 7.52 km along gently rolling terrain in Dasmarinas.

North-South Road: Alternative Alignment

NS 5: Aguinaldo Highway (expansion)	NS – 5 uses the existing Aguinaldo Highway alignment starting from about 2 km before Governor's Drive and terminates at the junction of Silang Municipal Road and the said highway. It spans about 9.24 km and has wide 4 to 5 lanes up to the Robinson's Mall area and tapers to two (2) lanes within about 500 meters until it reaches Silang. The existing horizontal and vertical alignments are generally good along relatively flat to gently rolling terrain.
NS 6: New road west of Aguinaldo	NS – 6 is an alternative alignment, which starts from the intersection of Aguinaldo Highway and traverses slightly in a southwesterly direction almost parallel to and west of Aguinaldo Highway. Since the alternative alignment would supposedly connect with the proposed CALA Expressway, it should terminate as it intersects the expressway alignment located about 7.85 km from the segment's northern terminal at the intersection of Aguinaldo Highway. The segment cuts across the commercial strip near the junction of Governor's Drive and through the open raw land adjacent to the existing riverbank located west of Aguinaldo Highway. The alignment traverses a rolling terrain at the initial stretch and changes gradually to gently rolling and relatively flat as it approaches the Silang Area.

North South Road

	Advantage	Disadvantage
NS-5 : Governor's Drive to Silang (via Aguinaldo Highway)	• Minimum requirements for project implementation such as compliance with environmental requirements, etc. since the existing alignment will be utilized. • Still, the alignment has the shortest route length. • Utilization of the existing pavement structure could be optimized resulting in less project capital requirements.	• The proposed widening or improvement of the existing road section will affect significantly large number of roadside developments aside from the necessity to relocate existing utilities installed within the road right of way. • Requires provision for project affected persons and properties. • Difficulty in right of way acquisition since many lot owners would be involved. • Requires efficient traffic management and control during construction.
NS-6 : Governor's Drive to Silang (via Aguinaldo Highway)	• Provides alternative route to the existing Aguinaldo Highway, which is now experiencing congestion due to heavy roadside developments. • Provides opportunity for untouched areas and raw land along its route to be developed. • Fewer disturbances to existing developments as well as fewer project affected persons. • Easy to construct as the alignment rests on open area.	• Expensive right of way acquisition along the commercial areas in Palapala. However, previous coordination with the landowner indicates that mutual beneficial arrangement could be secured. • The alignment requires spur connection with Aguinaldo Highway for alignment continuity. • Requires mitigation of adverse impacts to existing adjacent waterway during construction. • Requires higher total project requirement due to new construction and acquisition of right of way.

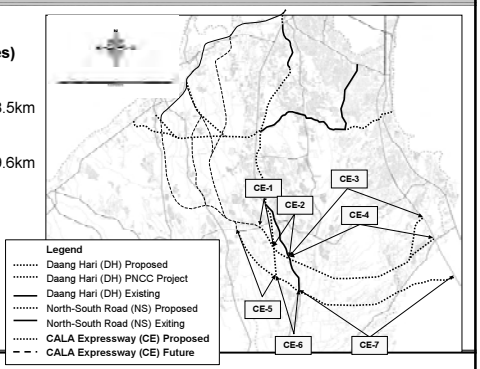
CALA Expressway

Expressway (50m-ROW, 6 lanes)

Alternative 1
CE-1~2+CE-3 = 18.5km

Alternative 2
CE-1~2+CE-4 = 19.6km

Alternative 3
CE-5~7 = 22.8km



CALA Expressway

CE 1,2,3	CE1 runs from Governors' Drive to NS6. CE2 is the segment that continues on from NS6 to Aguinaldo Highway (at Silang). CE3 alignment veers away toward the northwest direction as it enters the Sta. Rosa industrial complex and uses the existing link road to Mamplasan Interchange of the South Luzon Tollway in Binan, Laguna. The alternative line traverses rolling terrain between Silang and Sta. Rosa Industrial Complex and relatively flat area within the industrial park area for a total length of 15.65 km.
CE1,2 and 4	This uses the same alignment of CE1 and CE2 but continues on an easterly direction toward subdivision areas at the back of the Sta. Rosa industrial complex and runs parallel to an existing waterway until it reaches and eventually connects with the existing Sta. Rosa Interchange of the South Luzon Tollway. Likewise, the alternative line passes through the same terrain and spans approximately 14.53 km. As it enters the Sta. Rosa Industrial Complex, the line cuts through some developed residential and industrial subdivision areas and crosses over the existing major waterway twice.
CE5 – CE7	This line runs parallel to the alternative CE 1 – CE4 at a distance of about 2.5 km and begins its alignment 4.5 km west of Governor's Drive – Aguinaldo Highway Junction and ends at the existing ABB – Greenfield Interchange of the South Luzon Tollway. The alternative alignment has three (3) segments with aggregate length of 22.82 km. The expressway alignment traverses a rolling terrain from Governor's Drive and gently rolling to relatively flat along residential and industrial subdivisions along Sta. Rosa and Cabuyao.

CALA Expressway

	Advantage	Disadvantage
CE-1~2+CE-3: Aguinaldo Highway to South Luzon Tollway via Sta. Rosa Interchange	• The alternative line has the shortest route length generated and provides direct connection with Sta. Rosa Interchange. May serve as diversion road or alternative road to Sta. Rosa – Tagaytay Road, which is presently experiencing traffic congestion especially during peak hours.	• The alternative line will affect significantly large magnitude of existing developments, properties and persons. • Interfacing with Sta. Rosa Interchange may on the contrary aggravate the present traffic condition at the said facility unless independent interfacing scheme with the South Luzon Expressway would be developed to accommodate additional traffic that will be generated by the connection. • The alternative line though will avoid hitting some residential structures as the subdivision areas are not fully occupied, yet disturbance to the existing completely developed lands will be great since it is inevitable that the utilities already installed would be affected. • Will require higher capital requirement in spite of the alternative line's shorter route length due to high cost of road development consisting of longer waterway structures and the high cost of right of way acquisition and compensation. • The alignment will create adverse environmental impacts as it cross over and runs parallel and adjacent to the existing major waterway. • Ayala Land owns some properties on this area and it might be a conflict.

CALA Expressway

	Advantage	Disadvantage
CE-1~2+CE-4: Aguinaldo Highway to South Luzon Tollway via Mamplasan Interchange.	• Fewer disturbances to existing developments. Will affect less number of structures. • Utilization of the right of way and roadway structure of the existing link road to Mamplasan Interchange could be optimized resulting in reduced project capital requirement. • Minimum adverse environmental impacts as the segment will use the existing link road alignment. • Offers more efficient road network interfacing since the Mamplasan Interchange has not reached its capacity even during peak hours and at the same time serves as a diversion route to Sta. Rosa – Tagaytay Road, which is presently experiencing traffic congestion.	• Has longer route length and requires several bends as it uses the link road and approaches the proposed terminal at Mamplasan Interchange. • Will require higher capital requirement in spite of potential savings to be generated from the utilization of the existing link road right of way and road structure due to its longer route as compared to the other alternative line. • Ayala Land owns some properties on this area and it might be a conflict.

CALA Expressway

	Advantage	Disadvantage
CE-5~7: Aguinaldo Highway (Silang) to ABB-Greenfield Interchange.	• Magnitude of disturbance to existing developments is very small as compared to the other alternative lines. • The cost of development for the alternative line is the lowest among the other expressway line options since it has the shortest route length and less number of roadway structures to be installed. • This line offers opportunity to develop untouched and open raw land along its route and increase the land development potentials with the new alignment opening. • The line will not create adverse social and environmental impacts as it traverses generally open land. • The line provides more efficient transportation network linkage with the South Luzon Tollway since the newly constructed ABB-Greenfield Interchange has sufficient space for future expansion and improvement.	• Farther location when other nearer sites with large tracts of land still left untouched and undeveloped due to lack of adequate transportation network. • For efficient utilization of right of way along the last stretch of the alignment near the SLT, several turning curves should be provided. • The location lacks adequate local road network system such that traffic from the adjoining service road will have to blend with expressway traffic at the Interchange.

Evaluation of Alternative Alignments

Alternative No.		Alternative Alignment	Traffic / Technical: Easiness of Construction	Traffic / Technical: Adequacy of the Alignment	Traffic / Technical: Low Capital Requirement	Regional Development: Network Efficiency	Regional Development: Support Growth Corridors / Industrial Areas	Regional Development: Tourism Devmt.	Environment: Magnitude of Disturbance	Environment: Easiness in ROWA	Environment: Low Impact on Agricultural Sector	Total Score
DAANG HARI				25%			40%			35%		
			5	5	15	15	15	10	10	20	5	
Alt.-1	DH-4	Imus to Rosario (EPZA)										
Alt.-2	DH-5	Imus to Tanza (Gen. Trias Road)										
Alt.-3	DH-6	Imus to Tanza (Tanza-Naic Road)										
NORTH-SOUTH ROAD				45%			25%			35%		
			10	15	20	10	5	5	15	15	5	
Alt.-1	NS-5	Governors' Drive to Silang (on Aguinaldo Highway)										
Alt.-2	NS-6	Governors' Drive to Silang (new alignment)										
CALA EXPRESSWAY				30%			40%			30%		
			5	10	15	15	15	10	10	15	5	
Alt.-1	CE-1	Governors' Drive to NS-6										
	CE-2	North South Road to NS-6										
	CE-3	Aguinaldo Highway to SLEX via Sta. Rosa Interchange										
Alt.-2	CE-1	Governors' Drive to NS-6										
	CE-2	North South Road to NS-6										
	CE-4	Aguinaldo Highway to SLEX via Mamplasan Interchange										
Alt.-3	CE-5	Governors' Drive to North-South Road NS-6										
	CE-6	North South Road to Aguinaldo Highway (Silang)										
	CE-7	Aguinaldo Highway (Silang) to ABB Greenfield Interchange										

3. Implementation Support

1. LGUs initiatives
   a. Board Resolutions endorsing/accepting the project
   b. Land Use preservation/protection of alignment
   c. Development control along alignment
   d. Cost sharing scheme

2. Contribution/participation by private sector

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4. Workshop Guidelines

Groupings	Scope of Evaluation (Alternative Alignments)	Facilitator
(1) Provincial Stakeholders	Entire Alternative Alignments	Takagi / Lynn Sison
(2) Bacoor Stakeholders	North South	Mamet Tizon
(3) Dasmarinas Stakeholders	North South	Freddie Galano
(4) Gen. Trias Stakeholders	East West	Rene Santiago
(5) Imus Stakeholders	East West	Alvin Madrid
(6) Silang Stakeholders	CALA Expressway	Bing Pallana
(7) Tanza Stakeholders	East West	Nanette Abilay

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Output of Workshop

Output of the exercise is a weighted scoring of each road alternative based on the following parameters:

- Traffic and Technical: Easiness of Construction, Adequacy of Alignment, and Magnitude of Capital Requirement
- Regional Development: Network Efficiency, Support Growth Corridors/Industrial Areas, and Tourism Development
- Environment: Magnitude of Disturbance, Easiness in ROWA, and Low Impact on Agriculture.

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Evaluation Criteria for Alternative Alignments

	(1) Traffic/Technical	(2) Regional Development	(3) Environment	Total
East-West Road	25%	40%	35%	100%
North-South Road	45%	20%	35%	100%
CALA Expressway	30%	40%	30%	100%

Source: TWG and Study Team

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Sub Criteria for Traffic Evaluation

	(1) Traffic/Technical			
	(1-1) Easiness of construction	(1-2) Adequacy of alignment	(1-3) Magnitude (less) of capital requirement	Total
East-West Road	5%	5%	15%	25%
North-South Road	10%	15%	20%	45%
CALA Expressway	5%	10%	15%	30%

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Sub Criteria for Regional Development

	(2) Regional Development			
	(2-1) Network efficiency	(2-2) Support growth corridors/ industrial areas	(2-3) Tourism development	Total
East-West Road	15%	15%	10%	40%
North-South Road	10%	5%	5%	20%
CALA Expressway	15%	15%	10%	40%

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Sub Criteria for Environment

	(3) Environment			
	(3-1) Magnitude of disturbance	(3-2) Easiness of ROWA	(3-3) Low impact on agricultural sector	Total
East-West Road	10%	20%	5%	35%
North-South Road	15%	15%	5%	35%
CALA Expressway	10%	15%	5%	30%

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General Mechanics

- **Chairperson per group will be selected.**
- **Facilitator will prepare the output evaluation sheet for the group**
- **Reference materials will be distributed for each evaluation criteria**
- **Output of the groups will be summarized and presented in Session 3.**

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THANK YOU

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Feasibility Study and Implementation Support for the Cavite-Laguna (CALA) East-West National Road Project

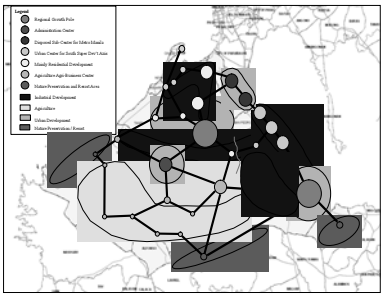
Preparation of the Optimum Project Plan -Laguna-

I Background
II Framework on the Preparation of the Optimum Project Plan
III Progress on the Environment/Social Consideration Study

1

Feasibility Study and Implementation Support for the Cavite-Laguna (CALA) East-West National Road Project

The Holistic Development Scenario



Regional Growth Pole
Calamba
Dasmarinas
Dispersed Sub-Center of MM
Muntinlupa/Las Piñas
Urban Centers
San Pedro/Binan/Cabuyao/ Sta. Rosa
Bacoor/Kawit/Noveleta/ Rosario/Carmona/GMA
Nature Preservation/Resort
Tagaytay/Los Baños / Ternate
Agro-business Center
Silang
Agriculture
Maragondon, Magallanes, Gen. E. Aguinaldo, etc.

2

Feasibility Study and Implementation Support for the Cavite-Laguna (CALA) East-West National Road Project

Task 1:	Inception Study	Jan. 2005
Task 2:	Surveys and Preliminary Scenario Development	Jan. – Mar 2005
Task 3:	Evaluation and Selection of Scenarios	May – Aug. 2005
Task 4:	Evaluation and Selection of Priority Projects	Sept. – Dec. 2005
Task 5:	FS of Priority Projects	Jan. – Sept. 2006

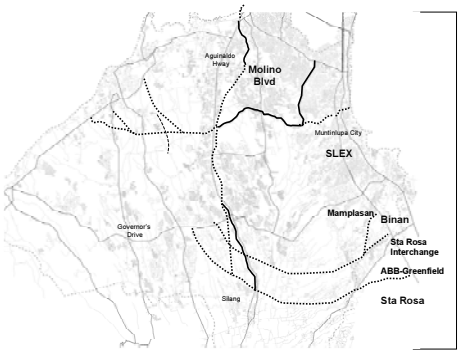
3

Stakeholder Meetings

No.	Study Phase	Main Subjects	Period
1st	Preparation of Scenarios	· Study Outline · Past, Ongoing & Future Transport Projects · Scope of Stakeholders, · Schedule & Objectives of Future Stakeholder Meetings	March 17, 2005
2nd	Evaluation of Scenarios	· Alternative Development Scenarios · Environmental Framework-Social and Natural Environment · Alternative Scenarios for Regional Transport Network	June 16, 2005
3rd	Preparation of Optimum Project Plan	· Outline of alternatives · Alternative measure in zero option · Scope and evaluation methodologies for Environmental and social considerations study (EIA level) · Obtain opinion on concerned environmental impacts *(This STM is the Official Scoping Session under EIS Process)*	Sept. 23, 2005
4th		· Results of evaluation on alternatives · Progress and interim results of Environmental and social considerations study (EIA level) · Study framework on preparation of optimum project plan	Early Dec., 2005
5th		· Results of Environmental and social considerations study (EIA level) · Overall evaluation on project validity · Mutual consent on optimum project	Mid-March, 2006
6th	F/S	· Outline of F/S · Follow-up of Environmental and social considerations study (EIA level) · Explanation of resettlement policy	Mid-May, 2006
7th		· Progress of the F/S · Explanation of framework of RAP	Early July, 2006
8th		· Outline of results of F/S · Mutual consent on framework of RAP · Further arrangement and requirement for the implementation	Early Sept., 2006

4

Barangays for Environmental & Social Study



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Barangays for Environmental & Social Study

Alignment	Exit Point at SLEX	Municipality	Barangay
CE-1, CE-2, CE-3	Mamplasan Exit (Existing)	Binan	Binan Malamig Loma Mamplasan
CE-1, CE-2, CE-4	Sta Rosa Exit (Existing)	Binan Sta Rosa	Binan Malamig Ganado Pulong Sta Cruz
CE-5, CE-6, CE-7	Malilit Exit (Exixting) Asia Brewery	Sta Rosa	Sto Domingo Don Jose Malilit

6

Framework on Preparation of the Optimum Project Plan

Data Collection And Survey	Analysis and Evaluation	Planning and Recommendation	Stakeholders Consultation & Seminar
		Formulation of Alternative Plans 1 Setting of alternative project plans 2 Collection & measurement of each indicators of the alternative project plan	3rd Stakeholders' Meeting
	Evaluation of traffic improvement Impact by the project		
Support of Environmental Impact Assessment Examination and preparation of TOR for environmental & social consideration Implementing support to the environmental & social consideration survey Support in EIA procedures, such as tagging			4th Stakeholders' Meeting
		Selection of Optimum Project Plan Support of stakeholders' meetings Correction / modification	

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On-going Works on the ESC Study

- Environmental Baseline Study
  - Field measurement surveys: air, noise/vibration, water
  - Secondary data collection

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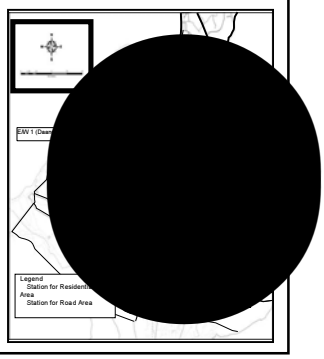
On-going Works on the ESC Study

Environmental Baseline Study
Field Measurement Surveys (Air, Noise/Vibration)



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On-going Works on the ESC Study

Environmental Baseline Study
Field Measurement Surveys (Water)

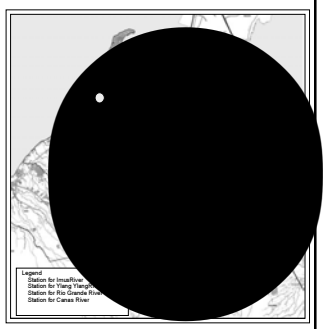
Water Quality Parameters :

pH (acidity)

Temperature

Total Suspended Solids

River Flow



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On-going Works on the ESC Study

- Environmental Baseline Study
  - Field measurement surveys: air, noise/vibration, water
  - Secondary data collection
- Social Survey
  - Focus group discussion (Barangay consultation)
  - Perception survey
  - Household inventory survey for resettlement (100% survey for potential households to be resettled for ROW acquisition)

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Consensus Building Process for Implementation of the Proposed Projects

- **Focus Group Discussion (Barangay Consultation)**
  - **Agenda**: Outline of the proposed projects, Proposed alternative road alignments, Coordination on social surveys, Q&A (discussion)
  - **Participants**: Barangay captains and councilors, Project-affected persons, Residents, Peoples organizations (PO), Non-governmental organizations (NGO)
  - Acceptance of the project by Barangay =>Endorsement of the Acceptance of the Project by Municipalities and Provinces

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Consensus Building Process for Implementation of the Proposed Projects

- Focus Group Discussion (Barangay Consultation)

Issues & Concern

- **Is the alignment final?**
- **Will there be compensation for affected assets? When?**
- **Is there a ready relocation site?**
- **How will existing business establishment be compensated?**
- **Will there be alternative income source in the relocation site?**
- **What documents are needed as proof of ownership?**

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Consensus Building Process for Implementation of the Proposed Projects

- Perception Survey
  - Sampled households from project-affected barangays

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Consensus Building Process for Implementation of the Proposed Projects

- **Household Interview Survey for Resettlement**
  - **All potential households to be resettled**
  - **Incl. questions on perception of the project**

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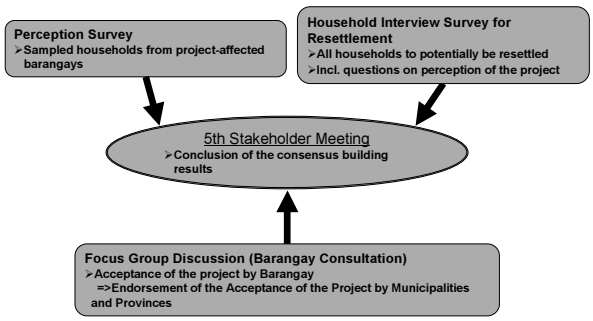
Consensus Building Process for Implementation of the Proposed Projects



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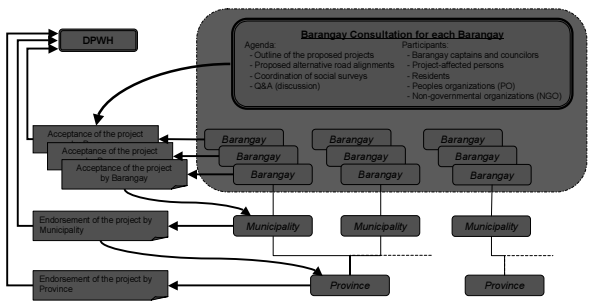
Consensus Building Process for Implementation of the Proposed Projects (Barangay Consultation)



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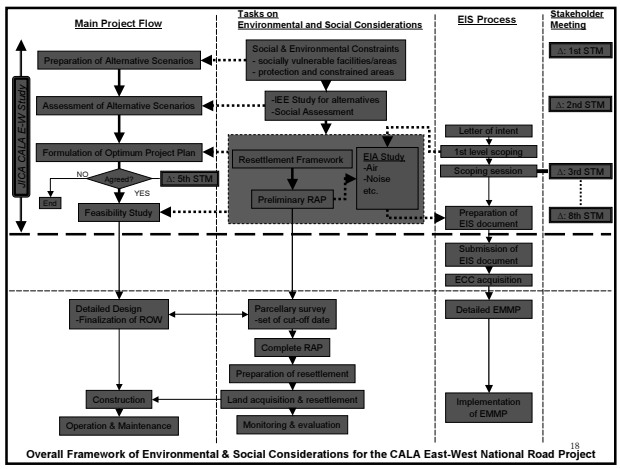

Overall Framework of Environmental & Social Considerations for the CALA East-West National Road Project

18

Feasibility Study and Implementation Support for the Cavite-Laguna (CALA) East-West National Road Project

THANK YOU

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DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS (DPWH)
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE FEASIBILITY STUDY AND IMPLEMENTATION SUPPORT ON THE CALA EAST-WEST NATIONAL ROAD PROJECT (CALA East-West)

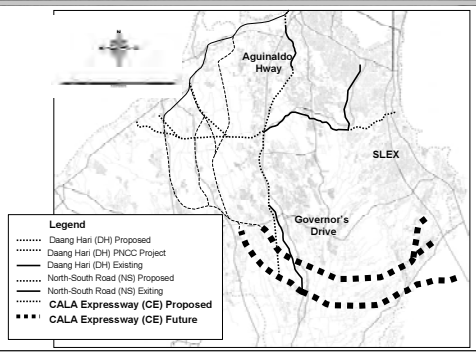
4th Stakeholder Meeting
Session 2: Evaluation of Road Alternative Alignments

9 December 2005

Topics

1. Background
   - 1.1 Selected Priority Projects
   - 1.2 Alternative Alignments
2. Criteria for Evaluation of Alternative Alignments
3. Implementation Support
4. Workshop Guidelines

Selected Priority Projects



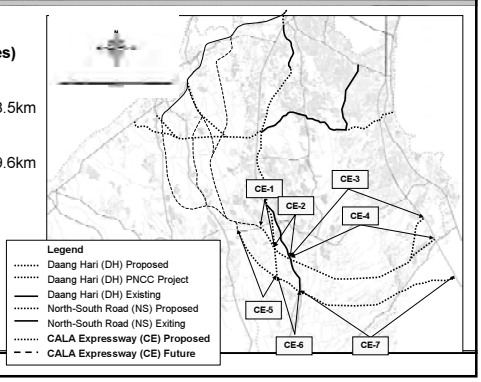
CALA Expressway

Expressway (50m-ROW, 6 lanes)

Alternative 1
CE-1~2+CE-3 = 18.5km

Alternative 2
CE-1~2+CE-4 = 19.6km

Alternative 3
CE-5~7 = 22.8km



CALA Expressway

CE 1,2,3	CE1 runs from Governors' Drive to NS6. CE2 is the segment that continues on from NS6 to Aguinaldo Highway (at Silang). CE3 alignment veers away toward the northwest direction as it enters the Sta. Rosa industrial complex and uses the existing link road to Mamplasan Interchange of the South Luzon Tollway in Binan, Laguna. The alternative line traverses rolling terrain between Silang and Sta. Rosa Industrial Complex and relatively flat area within the industrial park area for a total length of 15.65 km.
CE1,2 and 4	This uses the same alignment of CE1 and CE2 but continues on an easterly direction toward subdivision areas at the back of the Sta. Rosa industrial complex and runs parallel to an existing waterway until it reaches and eventually connects with the existing Sta. Rosa Interchange of the South Luzon Tollway. Likewise, the alternative line passes through the same terrain and spans approximately 14.53 km. As it enters the Sta. Rosa Industrial Complex, the line cuts through some developed residential and industrial subdivision areas and crosses over the existing major waterway twice.
CE5 – CE7	This line runs parallel to the alternative CE 1 – CE4 at a distance of about 2.5 km and begins its alignment 4.5 km west of Governor's Drive – Aguinaldo Highway Junction and ends at the existing ABB – Greenfield Interchange of the South Luzon Tollway. The alternative alignment has three (3) segments with aggregate length of 22.82 km. The expressway alignment traverses a rolling terrain from Governor's Drive and gently rolling to relatively flat along residential and industrial subdivisions along Sta. Rosa and Cabuyao.

CALA Expressway

	Advantage	Disadvantage
CE-1~2+ CE-3: South Luzon Tollway via Mamplasan Interchange.	• **Fewer disturbances to existing developments. Will affect less number of structures.** • **Utilization of the right of way and roadway structure of the existing link road to Mamplasan Interchange could be optimized resulting in reduced project capital requirement.** • **Minimum adverse environmental impacts as the segment will use the existing link road alignment.** • **Offers more efficient road network interfacing since the Mamplasan Interchange has not reached its capacity even during peak hours and at the same time serves as a diversion route to Sta. Rosa – Tagaytay Road, which is presently experiencing traffic congestion.**	• **Has longer route length and requires several bends as it uses the link road and approaches the proposed terminal at Mamplasan Interchange.** • **Will require higher capital requirement in spite of potential savings to be generated from the utilization of the existing link road right of way and road structure due to its longer route as compared to the other alternative line.** • **Ayala Land owns some properties on this area and it might be a conflict.**

CALA Expressway

	Advantage	Disadvantage
CE-1~2+ CE-4: South Luzon Tollway via Sta. Rosa Interchange	• The alternative line is the shortest route and provides direct connection with Sta. Rosa Interchange. May serve as diversion road or alternative road to Sta. Rosa – Tagaytay Road, which is presently experiencing traffic congestion especially during peak hours.	• The alternative line will affect significantly large magnitude of existing developments, properties and persons. • Interfacing with Sta. Rosa Interchange may on the contrary aggravate the present traffic condition at the said facility unless independent interfacing scheme with the South Luzon Expressway would be developed to accommodate additional traffic that will be generated by the connection. • The alternative line though will avoid hitting some residential structures as the subdivision areas are not fully occupied, yet disturbance to the existing completely developed lands will be great since it is inevitable that the utilities already installed would be affected. • Will require higher capital requirement in spite of the alternative line's shorter route length due to high cost of road development consisting of longer waterway structures and the high cost of right of way acquisition and compensation. • The alignment will create adverse environmental impacts as it cross over and runs parallel and adjacent to the existing major waterway. • Ayala Land owns some properties on this area and it might be a conflict.

CALA Expressway

	Advantage	Disadvantage
CE-5~7: ABB-Greenfield Interchange.	• Magnitude of disturbance to existing developments is very small as compared to the other alternative lines. • The cost of development for the alternative line is the lowest among the other expressway line options since it has the shortest route length and less number of roadway structures to be installed. • This line offers opportunity to develop untouched and open raw land along its route and increase the land development potentials with the new alignment opening. • The line will not create adverse social and environmental impacts as it traverses generally open land. • The line provides more efficient transportation network linkage with the South Luzon Tollway since the newly constructed ABB-Greenfield Interchange has sufficient space for future expansion and improvement.	• Farther location when other nearer sites with large tracts of land still left untouched and undeveloped due to lack of adequate transportation network. • For efficient utilization of right of way along the last stretch of the alignment near the SLT, several turning curves should be provided. • The location lacks adequate local road network system such that traffic from the adjoining service road will have to blend with expressway traffic at the Interchange.

Evaluation of Alternative Alignments

Traffic and Technical : Easiness of Construction, Adequacy of Alignment, and Magnitude of Capital Requirement .

Regional Development: Network Efficiency, Support Growth Corridors/ Industrial Areas, and Tourism Development

Environment : Magnitude of Disturbance, Easiness in ROWA, and Impact on Agriculture.

3. Implementation Support

1. LGUs initiatives
   a. Board Resolutions endorsing/accepting the project
   b. Land Use preservation/protection of alignment
   c. Development control along alignment
   d. Cost sharing scheme
2. Contribution/participation by private sector

4. Workshop Guidelines

Groupings	Scope of Evaluation	Facilitator
(1) Provincial Stakeholders	All alternatives	Takagi / Mamet Tizon
(2) Sta. Rosa Stakeholders	All alternatives	Rene Santiago / Alvin Madrid
(3) Binan Stakeholders	All alternatives	Freddie Galano / Bing Pallana

Evaluation Rating for Alternative Alignments

	(1) Traffic/ Technical	(2) Regional Development	(3) Environment	Total
CALA Expressway	30%	40%	30%	100%

Sub Criteria for Traffic Evaluation

	(1) Traffic/Technical			
	(1-1) Easiness of construction	(1-2) Adequacy of alignment	(1-3) Magnitude (less) of capital requirement	Total
CALA Expressway	5%	10%	15%	30%

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Sub Criteria for Regional Development

	(2) Regional Development			
	(2-1) Network efficiency	(2-2) Support growth corridors/industrial areas	(2-3) Tourism development	Total
CALA Expressway	15%	15%	10%	40%

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Sub Criteria for Environment

	(3) Environment			
	(3-1) Magnitude of disturbance	(3-2) Easiness of ROWA	(3-3) Impact on agricultural sector	Total
CALA Expressway	10%	15%	5%	30%

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General Workshop Mechanics

- Chairperson per group will be selected.
- Facilitator will prepare the output evaluation sheet for the group
- Reference materials will be distributed for each evaluation criteria
- Output of the groups will be summarized and presented in Session 3.

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THANK YOU

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DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS (DPWH)
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE FEASIBILITY STUDY AND IMPLEMENTATION SUPPORT ON THE CALA EAST-WEST NATIONAL ROAD PROJECT (CALA East-West)

4th Stakeholder Meeting

Session 3: Results of the Evaluation of Road Alternative Alignments

9 December 2005

Results of the Evaluation by Group

Next Steps

- Consultation with Affected Barangays
- Consultation with Large Property Owners
- Environmental and Social Study
- 5th Stakeholders' Meeting for Environmental and Social Study Results (March 2006)

THANK YOU

Coordination Meeting with HUDCC/TWG-DH2

6th Flr. Atrium Bldg., Makati City

The Feasibility Study and Implementation Support on the CALA East-West National Road Project

(CALA East-West)

December 12, 2005

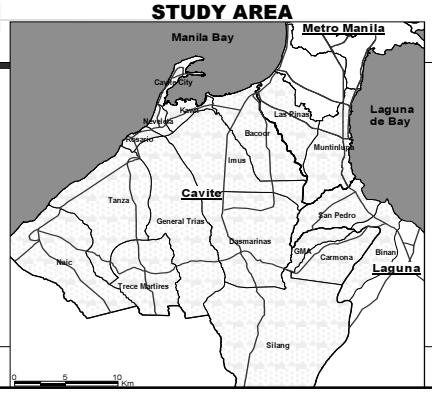
Department of Public Works and Highways o Japan International Cooperation Agency

Study Objectives and Background

i. Review of CALA regional transport network development scenario.

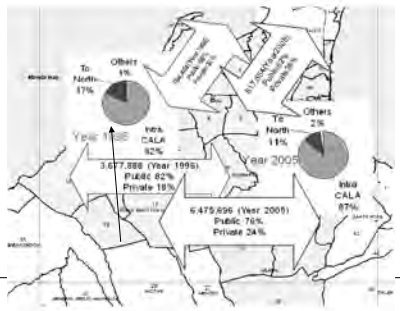
ii. Examination of the feasibility of CALA East-West road and related projects and preparation of project implementation plan.

STUDY AREA



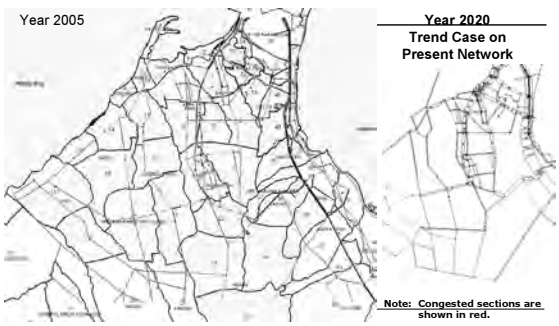
Person Trip Dependency in Metro Manila by CALA

By Public Mode & Private Mode
(1996 & 2005)



Total Trips
Includes
Intra Zone Trips

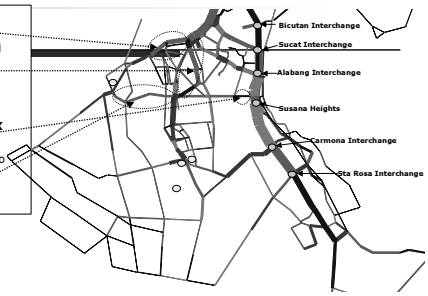
Traffic Volumes on Present Network



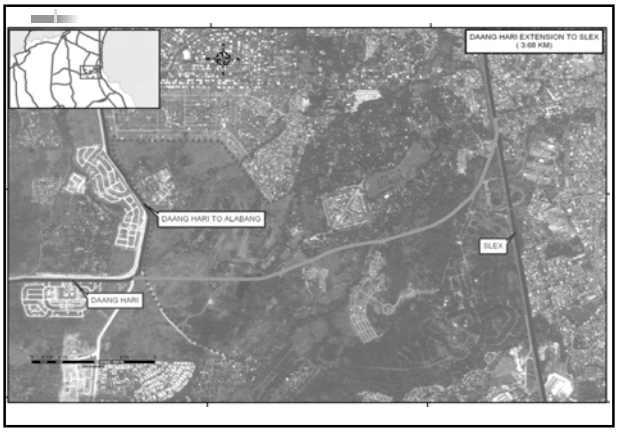
Note: Congested sections are shown in red.

Development Scenario for 2005-2008

- R1 Extension to Kawit (PEA)
- CALA North-South Toll Road from Bacoor to Daang Hari **(PIC/NDC/DPWH)**
- **Daang Hari Road**
  - **Extension to SLEX (DOJ/PNCC)**
  - Extension to Rosario **(DPWH thru JBIC/NDC/LGU)**



Ave. Travel Speed	21.4 km/h
% of heavily congested road	21.3
Annual savings (in Million Pesos)	15,504


DAANG HARI EXTENSION TO SLEX
(3.68 KM)
DAANG HARI TO ALABANG
SLEX
DAANG HARI

THANK YOU