



The Study on Integrated Development Strategy for Danang City and Its Neighboring Area in the Socialist Republic of Vietnam (DaCRISS)

Presentation Materials



### JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) DANANG PEOPLE'S COMMITTEE

## THE STUDY ON INTEGRATED DEVELOPMENT STRATEGY FOR DANANG CITY AND ITS NEIGHBORING AREA IN THE SOCIALIST REPUBLIC OF VIETNAM (DACRISS)

FINAL REPORT
ANNEX 8

**PRESENTATION MATERIALS** 

December 2010

ALMEC CORPORATION

International Development Center of Japan

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STEERING COMMITTEE MEETINGS





1<sup>st</sup> Steering Committee Meeting

The Study on Integrated Development Strategy for Danang City and Its Neighboring Area (DaCRISS)

### **Discussions on the Inception Report**

10 July 2008 JICA Study Team

### **TOPICS**

- **★** Background
- Study Objectives
- Study Area
- Main Considerations in the Study
- Work Plan
- Study Implementation
- **Undertakings**

- A need to respond to rapid urbanization and industrialization through development of Medium-sized cities including **Danang City**
- A need for accelerating of competitive growth and development of the Central Focal Economic Zone

Study Background

• A need to formulate workable and effective strategies for the region in general and Danang City in specific manner

### Study Objectives

- To formulate urban and regional integrated development strategies for Danang City and its neighboring provinces;
- To formulate a short-term action plan up to 2015, including prefeasibility studies for selected priority projects; and
- To undertake capacity building, focusing on urban planning and development, for the responsible organizations and staff.

### Main Outputs of the Study

- Development Strategy for the Central Focal Economic Zone:
- Urban Development Master Plan for Danang City up to 2025;
- Urban Transportation Program for Danang City;
- Comprehensive Environment Program for Danang City;
- Implementation plans up to 2015; and
- Urban planning database based on GIS and capacity development covering institutions and human resources

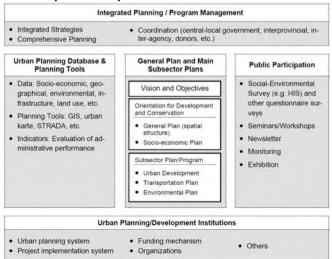
### Study Area Population Area (km2) Region Capita 2006 00-06 00-06 VND 000 (000)1.473 Quang Nam 1,296 6.246 8,510 14,530 31,410 11,570 Source: Statistical Yearbook of Vietnam (General Statistics Office) Legend District Boundary National Road ransport Corridor Ho Chi Minh Highway Urban Area

### Key Development Issues

- Confirm a competitive growth scenario for the Central Focal Economic Zone (Study Area)
  - ✓ not the same one as NFEZ and SFEZ
- Formulate development / growth management strategies for Danang City
  - ✓ Danang to become the engine of the growth for the region
  - ✓ Danang to become a only one city in Vietnam and Asian region
- Strengthen regional integratin and inter-provincial coordination
  - ✓ Strengthened connectivity with NFEZ, SFEZ, and the world
  - ✓ Strengthened connectivity among Danang City and provinces
  - ✓ Effective urban-rural integration

### ■ Formulation of Workable Urban Master Plan

### Basic Structure and Components of Proposed Comprehensive Urban Master Plan



### Key Considerations in Planning Work

- Integrated planning / program management
  - ✓ Integration of socio-economic plan, urban sector plans and environmental plan
  - ✓ Integration of visions, strategies, plans, projects / actions
  - ✓ From project to program
- Implementation mechanism
  - ✓ Much needed in all cities in Vietnam
  - ✓ Various methods will be introduced in the study for considerations
    of Danang City and MOC
- · Participation and monitoring
  - ✓ Top down Urban Master Plan will no longer effectively work
  - ✓ Danang City is expected to provide a model

### Overall Study Framework

- · Task 1: Preparatory work
- Task 2: Collection of necessary data and analysis of existing conditions
- · Task 3: Vision and strategies
  - ✓ 3A: Development strategies for CFEZ
  - √ 3B: Danang City development strategy
- · Task 4: Urban Development Master Plan
- · Task 5: Urban Transport Program
- Task 6: Sustainable urban environmental program
- Task 7: Support for Strategic Environmental Assessment and Environmental and Social Considerations
- Task 8: Implementation plan
- · Task 9: Capacity development
- · Seminars/Workshops
- · Steering Committee meetings
- · Reports

Year/ Month		T	ASK / WORK IT	EMS		SC., Repor Seminars				
2008/6	Task 1: Prepar	Task 1: Preparatory Work								
7	Task 2: Collection of Necessary Data and Analysis of Existing Conditions of Existing Conditions  12. Related 12. Related 15. CR Related 15. Da Nang 15. Polat of Congrehendia 15. Congrehendia 15									
8	Economic Zone Development	Development Strategies	Transport Planning	sive Environm tal Planni		int				
	2.F Planning Iss	ues and Agenda	!			Seminar (1				
9		and Strategies	3.5 02	Nang City E	Development Strat	tegies				
10	Central Focal E Review existing r		•Formula	te vision and s	trategies nagement scenario	Seminar (2)				
11		n Development			Task 7: Strateg	ic 4 2nd S/C				
12	•Formulate spatial •Prepare necessary	structure plan	neric framework(2	AUS)	Environmental Assessment & So Consideration	ocial				
2009/1+2					Consideration	Report				
3	Task 5: Urba	n Transport	Task 6: Si	stainable	Urban	■ 3rd S/C				
4	Program •Transport network		Environme •Plan for urban	services		Interim				
5	•Transport service		•Environment	management	plan	Report				
6	Task 8: Imple	ementation Pla	n			4 4 <sup>th</sup> S/C Seminar (3)				
7										
8	Task 9: Capacity Development									
9										
10/11						■ 5th S/C Seminar (4				

### **★ Task 1** Preparatory Work

- Review of available data and information, plans, studies and projects
- · Initial field surveys
- Mobilization
- Inception Report
- Others

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### ★ Task 2 Collection of Necessary Data and Analysis of Existing Conditions

- Task 2A On Central Focal Economic Zone development
  - ✓ Construction plan prepared by MOC
  - ✓ Socio-economic Development Plan prepared by MPI
  - ✓ Provincial Plans
- Task 2B On Danang City development strategies
  - ✓ Existing Urban Master Plan
  - ✓ Coordination with DOC activities on update of Construction Plan
- Task 2C On Urban transport planning
  - ✓ Existing Transportation plans / projects
  - ✓ Coordination with VITRANSS2 by MOT-JICA
- Task 2D On Comprehensive environmental planning
  - ✓ Plan for Danang An Environmental City by DONRE
  - ✓ Priority Infrastructure Investment Project by WB
- Task 2E Conduct of Supplemental Surveys
  - ✓ Comprehensive Household Interview Survey (HIS) for Danang City
  - $\checkmark$  Commune Survey for the Study Area
  - ✓ Establishments Survey for Danang City and other Provinces
  - ✓ Traffic Surveys for Danang City and others
- Task 2F Identification of Planning Issues and Agenda

### **★** Comprehensive Household Interview Survey (HIS)

- To obtain comprehensive information on socio-economic characteristics, travel pattern, needs and satisfaction on urban services of the people residing in Danang City
- Interviews with total of 5,000 households and their members in 47 communes
- Need for establishing a good survey team and cooperation of the city and people

### Main Items in Questionnaire

- A Socio-economic Information
- **B** Trip Information
- C Opinions and Satisfactions on:
- ✓ Travel / transport conditions
- Transportation policies
- ✓ Urban services
- ✓ Living conditions
- ✓ Housing
- ✓ Water supply
- ✓ Sanitation
- ✓ Landscape
- ✓ Others
- D Expectations for future development

Note: Please see draft Questionnaire form

### **\*** Commune Survey

- To obtain information on socioeconomic characteristics, problems, needs and opinions of communes
- A total of 671 communes in the study area will be covered
- Need for cooperation of Provinces and commune leaders

### Main Items in Questionnaire

- A Profile of Communes
- B Profile of Villages
- C Assessment on existing conditions and problems, needs and satisfaction on:
- ✓ Infrastructure services
- ✓ Livelihood
- √ Environment
- D Expectation for future development

Note: Please see draft Questionnaire form

### **★** Survey on Establishments

- To obtain information on perception / assessment on investment environment, constraints for operation and management of various types of establishments
- A total of 500 establishments will be selected in the study area including business, industries, public institutions
- Need for cooperation of City and Provinces

### Main Items in Questionnaire

- A Profile of establishments
- B Assessment on existing conditions and statement on problems and constraints on
- ✓ operation and management
- ✓ investment environment
- ✓ government support
- C Expectation for future development / improvement

Note: Please see draft Questionnaire form

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### **★** Traffic Surveys

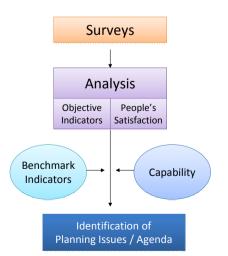
- To obtain updated traffic data
- To formulate comprehensive urban traffic database together with the results of HIS
- Type of Traffic Surveys:
- ✓ Cordon line survey
- ✓ Screen line survey
- ✓ Roadside OD Interview Survey
- Need for cooperation of City and Provinces, particularly police departments





### **★ Task 2F** Identifications of Planning Issues and Agenda

- Accurate assessment of existing conditions is important
- Statement of the analysis results must be clear and understood by the people
- Benchmark indicators must be realistic ones



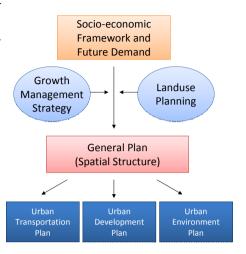
### **Task 3** Formulation of Vision and Strategies

- Development strategies for the Study Area (CFEZ)
  - ✓ Inputs to Construction Plan of MOC
  - ✓ Inputs to SEDP of MPI
  - ✓ Futher defined strategies for
  - ✓ Provinces in the Study Area
- Development Strategies for Danang City
  - ✓ Review of strategies stated in the existing plans / policies
  - ✓ Reinforcement / update of development strategies



**★ Task 4** Formulation of Urban Development Master Plan for Danang City up to 2025

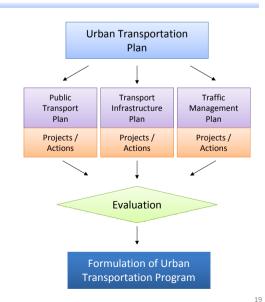
- Close coordination with DOC for update of Urban Master Plan
- Discussions on comprehensive / integrated urban development planning
- Considerations on participatory planning process and capacity development



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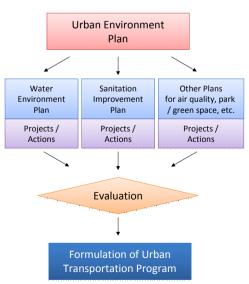
### **★ Task 5** Formulation of Urban Transportation Program

- Prepare a list of projects / actions with their profile
- Evaluate them in accordance with agreed criteria for priority ranking
- Formulate urban transportation program including implementation modalities



### **★ Task 6** Formulation of Urban Environmental Program

- Prepare a list of projects / actions with their profile
- · Evaluate them in accordance with agreed criteria for priority ranking
- Formulate urban environment program including implementation modalities



A8-6

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- **★ Task 7** Support for Strategic Environmental Assessment and Environmental and Social Considerations
- Assist Da Nang City in conducting strategic environmental assessment based on Vietnamese law;
- Conduct environmental and social considerations surey at IEE level based on JICA guidelines
- Conduct necessary supplemental surveys including lessons learned from other relevant projects

**★ Task 8** Formulation of Implementation Plan up to 2015

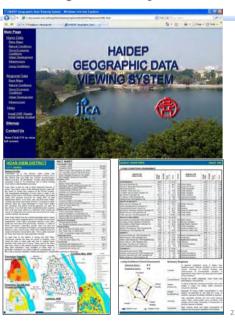
- Consolidate lists of projects / actions of all related subsectors
- Priority ranking of projects / programs within budget envelop
- Formulate workable and realistic implementation plan



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**★ Task 9** Development of Urban Planning Database System and Institutional Capacity

- To design database system for future urban planning including GIS-based data system
- To contribute to standardize urban planning process and methodology
- To conduct OJT (on-the-jobtraining) for key concerned areas in planning
- To prepare jointly draft planning manuals



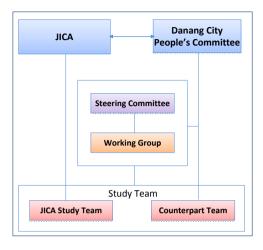
### **★** Seminars and Workshops

- Combined 1st and 2nd Seminar
- ✓ to discuss issues, vision and strategies
- ✓ about 100 participants from PCs, Departments, Associations, academia, private sectors, etc.
- ✓ additional workshops / stakeholder meetings may be held
- 3rd Seminar
- ✓ to present proposed draft Master Plan and draft Urban Transport Program and draft Urban Environmental Program
- $\checkmark$  Similar arrangements as combined by 1st / 2nd Seminar
- · 4th Seminar
- ✓ to present the entire results of the Study
- ✓ wider audiences be considered
- Workshops
- ✓ In addition, workshops will be held to hear voices of various stakeholders when and where necessary

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### Study Organization

- Steering Committee
- Working Group
- Counterpart Team
- Study Team
- Local Consultant Group



### Undertakings by Vietnamese Side

- Undertakings by Danang PC
- ✓ access to areas / facilities related to the Study
- ✓ provision of necessary data and information for the Study
- ✓ coordinate with other organizations for smooth implementation of the Study
- ✓ provision of suitable office space / equipments / furniture, internet / telephone connections
- ✓ other necessary support for smooth implementation of the Study
- Requested permits for the Study
- ✓ for conducting various surveys
- ✓ for conducting seminars, workshops, stakeholder meetings

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### ■ Matters for Immediate Attention

- Finalization of survey implementation for early commencement
- Provision of requested data / information
- Organization of Working Group and Counterpart Team

... thank you for your attention.

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2<sup>nd</sup> Steering Committee Meeting on The Study on Integrated Development Strategy for Danang City and Its Neighboring Area (DaCRISS)

> 28 November 2008 JICA Study Team

### Main Points of Discussion

- **★** Overall progress of the Study
- Main findings on development issues in the region and Danang City
- **★** Region development framework and orientation
- **★** Danang City development scenario
- **★** Progress of planning support activities
- **★** Summary of main points for decisions
- **★** Next steps

### Overall Progress of the Study

- Supplemental surveys
- Field Visits
- Meetings/Interviews
- Technical Working Group Meetings
- Counterpart Team Meetings
- Situational Analysis
- Discussions on Long-term Development Strategies
- Preparation of Progress Report

Year/ Month	TASK / WO	RK ITEMS		SC., Report Seminars
2008/6	Task1: Preparatory Wor		Inception Report 1st S/C	
7		1 3/0		
8	Task2: Collection of Nec Analysis of Existin			
9				
10	Task 3: Vision and Strate	gies		
11		_		2nd S/C
12 2009/1+2	Task 4: Urban Developm Master Plan (202		Task 7:	Seminar (1) Progress Report
3	Task 5: Urban Transport	Task 6:	Sustainable Urban	3rd S/C
4	Table C. Commission C. Commiss		nental Program	l
5			Strategic	Interim Report
6	Task 8: Implementation I	Plan	Environmental	4th S/C
7	(2015)		Assessment	Seminar (2)
8	Task 9: Capacity Develop	and Social	Draft Final	
9		Consideration	Report	
10/11				Sth S/C Seminar (3) Final Report

### Supplemental Surveys

### • Preparation of updated information:

On socio-economic activities and assessment of the people on existing conditions, problems, and future needs

### Household Interview Survey:

5,000 households and their members residing in Danang City

### • Commune Survey:

A total of 792 communes located in Danang City and Thua Thien Hue, Quang Nam, Quang Ngai and Binh Dinh provinces

### • Tourist Interview Survey:

A total of 400 tourists interviewed at Danang Airport

### Establishment Survey:

A total of 300 companies in Danang City

A8-9 • Traffic/Transport Surveys

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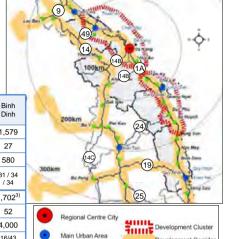


### Development Orientation in Current SEDP

✓ Developing the comparative advantages of the Central Region (infrastructure, inter and intra regional cooperation)

✓ Pursue economically, socially, and environmentally sustainable development

	Indicator	Da nang City	T.T. Hue	Quang Nam	Quang Ngai	Binh Dinh	
	Population (000)	807	1,145	1,490	1,311	1,579	1
	Urban Population (%)	87	35	19	15	27	1
'07	GDP/capita (US\$)	1,170	563	530	471	580	L
	Employment (1/2/3) (%)	44 / 4 / 52	37/20 /43	38 / 26 / 36	37 / 30 / 34	31 / 34 / 34	ľ
	Population (000)	1,369	1,357	1,783 <sup>3)</sup>	1,506 <sup>3)</sup>	1,702 <sup>3)</sup>	1
	Urban Population (%)	N. A.	70	N. A.	N. A.	52	Γ
'20	GDP/capita (US\$)	4,965	4,000	1,500 <sup>1)</sup>	859 <sup>2)</sup>	4,000	1
	Employment (1/2/3) (%)	2/43 /56	5/47 /47	15/44 /41 <sup>1)</sup>	17/50/ 33 <sup>2)</sup>	16/43 /41	



2015 figures based on SEDP up to 2015 2010 figures Based on SEDP up to 2010 Estimated Urban Point

Helli Collidoi

### ■ Movement of the People, 1999-2005 & 2005-2008

• Increasing : 162,000 (1999-2005) to 163,000 (2005-2008)

			From										
	Province		ng City	T.T.	T.T. Hue		Quang Nam		Quang Ngai		Binh Dinh		
		99-05	05-08	99-05	05-08	99-05	05-08	99-05	05-08	99-05	05-08		
Other	SFEZ	20.9	16.3	21.2	24.4	22.2	13.0	19.6	19.4	20.3	13.1		
FEZ	NFEZ	3.8	3.4	9.2	10.3	1.1	0.6	1.8	1.8	0.1	0		
	Danang City	53.4	44.5	21.8	17.3	12.5	11.9	17.6	16.8	6.9	5.3		
	Hue City	1.3	1.1	18.6	15.2	0.6	0.2	2.1	1.9	0.1	0		
CFEZ	Dung Quat	1.6	2.7	1.8	1.6	2.6	6.7	19.8	22.7	1.7	4.1		
	Elsewhere in CFEZ	5.3	9.0	8.2	12.3	40.7	51.8	26.8	26.1	60.6	72.1		
Elsewh	nere in Vietnam	13.7	23.2	20.3	18.0	20.4	15.8	12.1	11.5	10.3	5.4		
Total	%	100	100	100	100	100	100	100	100	100	100		
iotai	No (000)	23	20	17	23	35	31	26	25	61	64		

Source: DaCRISS Commune Survey, 2008

National Transport Development Orientation (VITRANSS2)

Transportation Strategy

✓ North-South High Speed Railway 300kph New Line (1,550km) Construction Cost = U\$\$ 30 billion

✓ Existing Railway

✓ Expressway

✓ Ports

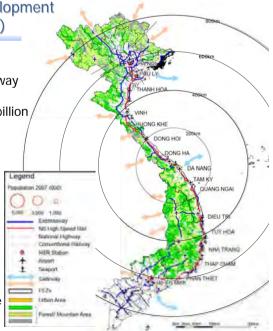
✓ Airports

✓ East-West corridor

Urbanization Policy

✓ Growth of secondary cities

 Integration with regional development strategies must be attended



### **★** Responses of Communes (Infrastructure Services)

• A need for further improvement of infrastructure

	Danang City	Thua Thien Hue	Quang Nam	Quang Ngai	Binh Dinh	CFEZ			
		Primary H	ealth Care	97	94	97	84	100	94
		Education	Primary	98	92	95	93	100	95
		Education	Secondary	98	84	91	89	96	90
Coverage of	Services (%)	Piped Drin	king Water	72	62	65	41	51	58
		Electricity		100	85	89	90	97	91
		Telephone		73	48	32	20	53	40
		Drainage		75	51	46	19	81	59
	From Commune	Average Distance (km)		5	15	17	12	12	12
		Road Conditions 1)		0	0	10	6	0	4
	Center	Seasonal Disruption (%)		16	36	33	87	47	48
Road	to District Center	Vehicle Travel Time (min)		12	27	33	35	22	26
Conditions	From	Average Di	stance (km)	8	40	75	48	67	47
	Commune	Road Cor	nditions 1)	2	0	9	1	0	3
	Center to	Seasonal D	Seasonal Disruption (%)		39	25	79	36	41
	Provincial Center		Vehicle Travel Time (min)		58	116	89	78	72

Source: DaCRISS Commune Survey, 2008

### **★** Responses of Communes (Constraints to Development) (% who replied "Major obstacle" or "Severe obstacle")

 While skilled labour and capacity of people are considered as major constraints to development in the region, other constraints vary by province

	Province	Danang City	Thua Thien Hue	Quang Nam	Quang Ngai	Binh Dinh	CFEZ
	Road Access	20	24	50	43	20	35
	Power Supply	2	13	45	36	1	25
Infrastructure	Water Supply	14	60	10	55	87	46
and Service Factors (%)	Drainage	41	19	4	46	0	18
` ′	Education Services	4	16	46	14	4	22
	Health Services	9	16	48	18	4	23
	Land for Agricultural Production	29	8	11	11	60	22
	Land for Housing	16	3	15	1	20	11
Required Inputs to	Land for Enterprises	30	7	25	13	8	16
Facilitate	Skilled Labor	50	68	66	91	91	76
Development (%)	Knowledge and Capacity of People	38	70	67	97	53	69
	Access to Credit	21	39	55	98	15	51
	Price of Physical Inputs	50	20	44	92	6	43

Source: DaCRISS Commune Survey, 2008

### ★ Responses of Communes (Environmental Problems)

(% who replied "Significant problem" or "Very severe problem")

 Overall environment situation is considered relatively good except flooding, air pollution in Danang and deforestation / soil erosion / landslide in Hue

	<u> </u>	Danang City	Thua Thien Hue	Quang Nam	Quang Ngai	Binh Dinh	CFEZ
Groundwat	er Pollution	20	7	0	0	0	3
Surface Wa	ter Pollution	18	8	0	0	0	3
Saline I	ntrusion	2	4	0	0	1	1
Soil Po	ollution	2	3	0	0	0	1
Solid <sup>1</sup>	Waste	7	2	0	1	0	1
Air Po	llution	18	9	0	4	0	4
Defore	station	5	20	5	9	9	10
Soil E	rosion	5	22	4	8	3	8
Land	slide	11	34	3	6	2	10
Deserti	Desertification		1	0	0	0	0
	Gradual Inundation	5	34	2	35	36	23
Flooding	Flash Floods	13	25	12	19	5	15
	Storm Surges	7	5	0	1	0	2

Source: DaCRISS Commune Survey, 2008

### Responses of Communes (Development Potentials) (% who replied "High potential" or "Very high potential")

 Agriculture, eco tourism and services are considered as sectors with relatively high potential

Pro	Province		Thua Thien Hue	Quang Nam	Quang Ngai	Binh Dinh	CFEZ
	Crops	13	16	36	10	1	18
Agricultural	Livestock	9	7	28	13	22	18
Products	Aquacultural	13	28	9	16	15	16
	Forestry	11	28	43	37	36	35
Aquacultural	Agricultural, , and Forestry ducts	13	17	8	28	15	16
	ther Extractive ustry	4	13	4	15	0	7
Household (	Craft Industry	16	11	15	14	20	15
Tourism	Mass	9	16	6	2	1	6
Tourism	Eco	23	28	13	3	35	19
Manufacturi	ng Industries	7	3	5	13	2	6
Const	Construction		3	3	16	13	8
Shops / C	Shops / Commercial		34	13	28	25	25
Other S	Other Services		26	8	4	25	15
Other I	ndustrial	23	1	3	2	0	3

\8-11 Source: DaCRISS Commune Survey, 2008

<sup>1) %</sup> who replied "bad"

### ■ Assessment of the Region

### ■ Weakness and Threats ■

- Small local market (small population & low income)
- Distance from growth centre
- Poor integration between provinces
- Inadequate infrastructure
- Unknown to the world

### 

- Rich natural / cultural resources
- Strategic location in the country and GMS region
- Strong policy commitment of the Government for growth
- Potential quality human resource
- ✓ Maximize potentials through "integration" to enlarge and strengthen capacity of and as the region
- ✓ Appeal to the world to promote investment (capital, technology, visitors)
- ✓ Provide more active Central Government intervention for take-off before establishing sustainable growth

### Proposed Vision and Strategy for CFEZ

### **★** ECO-TECHS Region **★**

- Economic Development
- Ecological balance
- Ethnological harmonization

### through

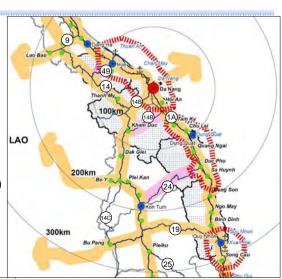
- Technology oriented solutions
- Enhanced environmental management
- Cultural value preserved
- Human resource developed
- Strategic infrastructure provided

- ★ INTEGRATION: Core Planning Principle ★
  - Spatial : international, national, Integration provincial and local levels
  - Sectoral : economic, social, Integration environmental, urban-rural, infrastructure-service, ...
- Institutional : Central-local government, inter-provincial, inter-department, public-private,

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### ■ Modified Spatial Structure

- Development Clusters
  - √ Hue Danang Hoi An
  - ✓ Chu Lai Dung Quat
  - ✓ Quy Nhon
- Development Corridors
  - ✓ North South Central
  - ✓ North South Upland
  - ✓ East West (international)
  - ✓ East West (local)
- Urban Centers



### ■ Possible Role-Sharing Among CFEZ Provinces (Tentative)

Main	Agenda	T.T. Hue	Danang City	Quang Nam	Quang Ngai	Binh Dinh
Gateway Func	tion	В	A	С	В	С
	Tourism	A	A	A	Α	Α
	Industry	В	В	С	A	В
	Services	Α	A	В	Α	В
Strategic Development	Environmental Business	В	A	Α	В	В
Themes	Human Resource Dev.	В	A	В	В	В
	Environmental management	A	A	A	A	A
	Cultural Value Enhancement	A	В	A	В	В
Urban Development		A	A	A	A	A
Rural Develop	ment	A	В	A	A	A

A: Primary role, B: Secondary role, C: Minor role

### Approach to Assessment of Development Scenario

Sustainability	Scenario 1 : Baseline (Do Nothing)	Scenario 2 : Existing Plan	Scenario 3 : Enhanced Integration
Economic: • Global competitiveness • Complimentality in Vietnam • CFEZ integration			
Social : • Poverty free • Reduced in equality • Access to services			
Environment : • Ecology protected • Pollution free • Disaster preparedness			
Governance : • Good management • Financial sustainability • Community involvement			

### Further Study

- Tourism value chain analysis
- Coastal management strategy
- Transport network development
- Urban development concept for other cities than Danang
- Urban-rural linkages
- · Role-sharing in industry location
- Water resource management
- Others

### **★** Contribution of DaCRISS **★**

- Additional input to CFEZ plan
- Shared-role in investment promotion
- Inter-provincial coordination (public transport, utilities, resource management, environmental protection, disaster management etc)
- Conduct of provincial workshops
  - ✓ to learn more about conditions of each province
  - ✓ to discuss on findings/assumptions made by the study team

### ★ Proposed Basic Orientation ★

- ① Respond to existing demand and needs of communes
- Attend common issues among provinces in the region such as human resource development, capacity building, access to credit, etc.
- Strengthen international access to market, information, technology and investment through expanded air and maritime transport and information system.
- Strengthen inter-provincial coordination for strategic sector such as tourism, environment, transport, coastal management...
- S Establish complementary role of the CFEZ lead by Danang in growth strategy rather than competing NFEZ and SFEZ through new type of economic development opportunities

- Formulate step-wise comprehensive infrastructure development program for the region for external funding
- Leverage major national transport projects such as NSHSR, Expressway, etc.
- Expand international direct air connection with main cities in Asia as well as international shipping services
- Exploit east-west corridor demand
- Strengthen telecommunication services
  - Strengthen intra-regional connectivity through network development
  - Expand tourism in coordination among provinces especially eco and culture tourism
- Promote agricultural production matching potential of provinces
- Promote handicraft industry
- Promote private sector SMEs in commercial and service sector
- Exploit new types of industries such as human resource development, R&D, environmental humans

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### ■ Danang City: Socio-economic Profile

- ✓ Total population growth is moderate but urban population growth is high
- ✓ In employment, tertiary sector grows fast with moderate growth of secondary and negative growth of primary in employment

✓ Contribution of the secondary sector is the most significant

	j	2000	2007	Growth Rate 2000-2007 (%/yr)
Pop	ulation (000)	716	807	1.7
Urban	Population (%)	79	87	3.1
Average HH	Income <sup>1)</sup> (VND 000)	N. A.	4,098	-
	no (000)	323	400	3.1
Employment	Unemployment (%)	N. A.	5.02	-
	Sector (1/2/3) (%)	30 / 32 / 38	10 / 32 / 58	-9.5 / 5.7 / 12.4
	GRDP (VND billion)	7,984	15,284	9.7
	Sector (1/2/3) (%)	8 / 40 / 52	4 / 47 / 49	-0.6 / 12.3 / 8.8
Economic	FDI (00-07) (USD million)		4,751	-
Indicators	Export (US\$ mil)	235	470	10.4
	Import (US\$ mil)	316	522	7.4
	Tourism Receipt (USD million)	13	32	13.9

Source: DaCRISS HIS, 2008

### Ownership of Properties and Goods

- ✓ High ownership level of private vehicle (M/C and bicycle)
- ✓ Similar ownership level of household goods with Hanoi
- ✓ Ownership level of vehicles / household goods vary by District

Disti	ricts	Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang	Hanoi <sup>1)</sup>
	Air-con	23	15	9	4	4	6	1	11	19
	Washing machine	61	48	39	31	20	30	10	39	41
Commodities	Refrigerator	88	80	76	72	58	67	38	72	71
per household	TV	98	98	98	98	97	97	91	97	98
(%)	Radio	13	7	30	8	22	7	5	13	58
	Computer	53	40	37	31	30	29	11	36	32
	Mobile phone	83	79	81	81	69	77	52	75	43
Vehicle per	Bicycle	18	18	20	27	24	24	29	21	37
person	Motorcycle	54	47	50	53	45	44	38	47	35
(%)	Car	1	1	0	0	1	1	0	1	1

Source: DaCRISS HIS, 2008 1) Source: HAIDEP HIS, 2005

### Income Distribution

- ✓ At city level average household income is 4.1 million dongs/month and increase distribution is more equal compared to Hanoi
- ✓ However, income distribution vary significantly by District
- ✓ Farther anlysis will be made for low income group on their problems and needs

Household Income (%)	Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang	Hanoi <sup>1)</sup>
- 1.5 million VND	9	10	8	9	19	10	28	13	27
- 2.0 million VND	8	10	9	7	11	11	23	11	18
- 3.0 million VND	17	22	27	25	31	26	26	23	23
- 4.0 million VND	15	17	20	23	19	22	12	17	15
- 5.0 million VND	18	18	16	17	9	15	7	15	8
- 6.0 million VND	10	8	9	8	4	7	2	7	4
More than 6.0 million VND	22	15	11	12	7	9	2	13	5
Average Household Income (mil VND/month)	5.0	4.5	4.2	4.1	3.2	3.9	2.5	4.1	2.7

Source: DaCRISS HIS, 2008 1) Source: HAIDEP HIS, 2005

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### Connectivity to Urban Infrastructure and Services

- ✓ Similar or higher level of availability of urban services than Hanoi
- ✓ Service levels in Danang vary by district

Coni	nection to (%)	Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang	Hanoi
	Electricity	100	100	100	100	98	100	98	100	100
	Piped water supply	95	86	83	46	38	57	7	67	62
	Toilet facility	9	9	23	0	2	14	8	10	79
L Lette .	Gas	1	2	5	0	1	1	2	2	77
Utility Services	Telephone	90	85	89	78	71	78	63	81	82
	Solid waste collection	96	99	99	85	81	96	26	85	84
	Sewage system	88	82	65	10	21	59	3	57	N. A.
	Internet	35	25	17	12	9	11	3	19	10
Primar	y Health Care 2)	98	99	97	100	98	94	93	97	N. A.
Edwarting	Primary 2)	100	100	100	100	85	99	97	98	0.5
Education	Secondary 2)	100	100	99	100	84	97	99	98	95

Source: DaCRISS HIS, 2008 1) Source: HAIDEP HIS, 2005

A8-14 2) Source: DaCRISS Commune Survey, 2008

### ■ People's Assessment on Housing Condition and Needs

- ✓ Houses are mostly owned by households with relatively high level of satisfaction
- ✓ People want more space with good airflow and structure

		Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang	Hanoi <sup>1)</sup>
Ownership	Owner- occupied	98	96	96	97	99	94	98	97	92
(%)	Others	2	4	4	3	1	6	2	3	8
Average L (m2/h		98	96	117	132	113	144	91	108	89
Satisfaction	Dissatisfied	10	16	15	18	22	17	23	16	26
with Existing	So-so	41	29	24	18	30	42	39	33	28
Conditions	Satisfied	49	56	61	64	48	42	38	51	46
		Space	Space	Space	Air flow	Structure	Space	Structure	Structure	Space
Top 3 Re		Structure	Air flow	Structure	Structure	Space, Design	Air flow	Location	Space	Design
Dissatisfaction		Air flow	Location	Air flow	Space, Design	Location	Structure	Air flow	Air flow	Structure

Source: DaCRISS HIS, 2008 1) Source: HAIDEP HIS, 2005

### ■ People's Assessment on Parks / Green Space

- ✓ Parks are poorly provided in the city. Only 14% of the people can access to parks within walking distance
- ✓ More than 80% of the people think access to parks and green space is important.
- ✓ For existing parks people are satisfied

		Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang	Hanoi <sup>1)</sup>
Availability of	Within walking distance	18	15	15	40	1	15	1	14	31
Parks and Green Space in Neighborhood (%)	Within a reached distance	12	5	7	15	0	6	0	7	19
recignizationa (70)	No	70	80	78	45	99	79	99	79	50
Green S	Importance of Access to Park and Green Space (% of Yes)		78	76	100	68	84	78	82	90
	Dissatisfied	16	18	25	11	15	28	9	18	20
Satisfaction of Parks (%)	So-so	56	48	38	43	62	56	49	50	35
(70)	(%) Satisfied		34	37	45	23	16	42	32	45

■ Housing Needs of the People

✓ A WB study indicates that about 19% of existing housing stock need rebuilding. or substantial improvement = 19% of the households replied dissatisfaction on existing housing (DaCRISS)

		Poor Housing												
Household Income Quintile <sup>1)</sup>	"Very unsafe" Environmen tal condition		Temporary Housing		"Very Poor" Maintenance Condition		Below 6sqm/Person		Total		Total Housing Stock			
1 (20%)	206	17	3,500	39	1,236	55	9,058	49	14,206	51	29,569	20.2		
2 (20%)	412	33	1,236	14	824	36	6,588	36	6,588	24	32,086	21.9		
3 (20%)	412	33	3,088	34	0	0	2,265	12	5,353	19	35,848	24.5		
4 (20%)	0	0	618	7	206	9	412	2	1,236	4	31,252	21.4		
5 (20%)	206	17	618	7	0	0	0	0	618	2	17,639	12		
Total/Percent of total HH	1,236	1	9,060	6	2,266	2	18,323	13	28,001	19	146,380	100		

Source: Assessment of Housing for Low Income Groups in Danang, 2007

### ■ People's Request on Park Function

- ✓ Play area for children is the number one request of the people
- ✓ Greenery (trees, plants, flowers), rest area, exercise / sports area are the second important function

	Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Da nang	Hanoi <sup>1)</sup>
	Play area for children	Play area for children	Play area for children	Play area for children	Play area for children	Play area for children	Play area for children	Play area for children
Top 3 Needed Function of Parks / Garden	Exercise/ sports area	Exercise/ sports area	Greenery (trees, plants, flowers)	Rest area	Greenery (trees, plants, flowers)	Rest area	Greenery (trees, plants, flowers)	Walking area
Spaces (%)	Greenery (trees, plants, flowers)	Greenery (trees, plants, flowers)	Rest area	Exercise/ sports area	Rest area	Greenery (trees, plants, flowers)	Rest area	Rest area

Source: DaCRISS HIS, 2008 1) Source: HAIDEP HIS, 2005

Source: DaCRISS HIS, 2008 A8-15 1) Source: HAIDEP HIS, 2005

### Landscape

✓ People are very much conscious on landscape and urban design

		Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang	Hanoi
	Electric Wires	99	99	99	99	97	100	99	99	97
Negative	Parking on Sidewalks	97	95	99	99	97	98	99	97	96
Impacts on Landscape	Advertisement in Urban Areas	91	93	85	94	93	89	98	92	82
(% Yes)			83	74	74	68	77	79	77	77
	Overscale Buildings		92	75	69	75	80	91	83	77
	ite Landscapes of ranking)	<b>4.</b> My K	he beach	n, <b>5.</b> Non	Nuoc be	on Tra pe ach, <b>6.</b> Bi esort, <b>10.</b> I	g C (Vinh	-	,,	
Land	Unfavorite scapes of ranking)	<b>4.</b> Xuan <b>7.</b> Trun	Thieu beg	each, <b>5. l</b> Theater,	Metro, <b>6.</b> <b>8.</b> Indoch	Stadium, <b>3</b> Softech o nina rivers <b>0.</b> Hai Var	ffice tow ide towe	er,		

Source: DaCRISS HIS, 2008 1) Source: HAIDEP HIS, 2005

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### Assessment of Tourism

✓ Many people think tourism must be promoted for economic reasons

· ivially p	wany people think tourish must be promoted for economic reasons											
		Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Danang			
Importance of	Yes	88	89	84	99	87	96	94	90			
Tourism Promotion	So-so	6	8	11	1	10	4	3	7			
(% of Total)	No	6	3	5	0	3	0	3	3			
		Domestic to	Domestic tourism									
		Ecotourism	(mountains,	etc.)					18			
		Beach resor	Beach resort (mass) tourism									
		Foreign tourism										
Type of Touris Promoted		Cultural / his	Cultural / historical tourism									
	(70)	Marine sport	ts (sailing, di	ving, sport fis	hing, etc)				11			
		Craft village	tours						4			
		Entertainme	nt (casinos,	theater, etc)					3			
		Conventions	/ exhibitions	/ conference	es				2			
Reason for Pr	romotina	To increase	employment	opportunities	3				72			
Tourisr	m	To increase	income/dem	and for good	s from visitor	5			22			
(% of To	tal)	To meet foreign people / people from other regions										
Reason for Not	Promoting	Leads to higher prices for locals										
Tourisr	m	Leads to resettlement of locals										
(% of To	tal)	Leads to gre	ater pressur	e on services	(electricity, v	vater, waste	disposal)		20			

Source: DaCRISS HIS, 2008

### ■ Leisure Time Spending

✓ Not many people travel outside Danang. However the future will be different as experienced in other countries

			Hai Chau	Thanh Khe	Son Tra	Ngu Hanh Son	Cam Le	Lien Chieu	Hoa Vang	Da nang
		No	73	79	71	72	84	62	91	76
Travel to Outside	Once		15	16	23	22	10	24	8	16
Danang City Last Year (%)	2—3 Yes times		9	4	4	4	2	9	1	5
( )	More than 3 times		4	1	1	3	4	5	0	2
Top 5 Des	Top 5 Destinations		1. Hue 2. HCM 3. Quar 4. Hand 5. Khan	C ng Binh oi						
Top 5 A	Top 5 Activities		2. Wato 3. Drive	at home th movies around the relatives friends						

Source: DaCRISS HIS, 2008

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### ■ People's Assessment on Living Environment

(% who replied "Dissatisfied")

- ✓ People in Danang are relatively satisfied with existing living environment than those in Hanoi
- ✓ Relatively high dissatisfaction is shown on entertainment facilities, parks / green space, public transportation

Living Environment	Da nang	Hanoi <sup>1)</sup>
Greenery	27	29
Landscape	21	24
Flood	19	27
Air Quality	18	26
Tranquility	17	19
Sanitary Condition	15	20
Safety / Security	11	11
Housing	10	20

Utility Services	Da nang	Hanoi <sup>1)</sup>
Water Supply	12	38
Power Supply	9	7
Solid Waste Collection	8	12
Gas Supply	6	8
Telecom	4	5

Access to Urban Services	Da nang	Hanoi <sup>1)</sup>
To Entertainment Facilities	27	32
To Parks / Green Spaces	25	38
To Public Transportation	22	33
To Health Care Centers	12	16
To Public Administrative Office	10	19
To Market (daily supply)	9	13
To Primary School	6	7

Source: DaCRISS HIS, 2008
1) Source: HAIDEP HIS, 2005

### However the assessment of living environment varies by District Numbers in () indicate the percentage of respondents who replied "dissatisfied"

• Hai Chau: access to entertainment facilities (24), greenery (23), access to

parks / green spaces (21),

• Thanh Khe: greenery (37), landscape (31), access to public

transportation (25), access to parks / green space (24), air quality (23), access to entertainment facilities (22), tranquility (21)

• Son Tra: access to entertainment facilities (32), access to parks /

green space (29), greenery (27), landscape (23)

• Ngu Hanh Son: access to entertainment facilities (23)

• Cam Le: water supply (38), flood (30), access to parks / green space

(23), access to public transportation (22)

• Lien Chieu: air quality (36), greenery (29), access to parks / green

space (27), tranquility (26), access to entertainment facilities (26), sanitary condition (23), flood (23), landscape (22)

• Hoa Vang: water supply (47), flood (42), solid waste (32), access to

entertainment facilities (27), greenery (26), gas supply (26), access to parks / green space (25), landscape (23),

33

air quality (22), access to public transportation (22)

Source: DaCRISS HIS, 2008

## Future of Pranang City TP Da Nang Prao Hoi An Quang Nam Tra My Quang Ngal Quang Ngal

### Summary of Existing Conditions

- ✓ In general people are relatively satisfied with existing situation
- √ However, there are still much room for improvement depending on specific areas
- ✓ Consciousness of the people on environment (not only pollution but also landscape, urban design, greenery, etc.) is high

### Key Factors for Development in Danang City Identified by the People

### Future Vision

### Main Themes for Development

	%
Environmentally rich city supported by services and tourism	22
Growth center in central VN which can compete with Hanoi and HCMC	19
Center for culture, arts, and tourism	14
Industrial and manufacturing city exporting cheap goods to the world	14
Modern tourist city offering outdoor activities and entertainment	11
Center for hi-tech industry and education	9
Gateway to the east-west Greater Mekong Subregion corridor	5
Center for processing natural resources from the central region	5

	%
Health and cleanliness	20
Strong communities and families	17
Social harmony and equality	12
Futuristic and high-tech industry	9
Commerce and business	9
International and outward looking	8
Fun and entertainment	8
Nature and natural environment	7
Culture, history, and the arts	7
Order and careful control	4



Environment City matches people's desire but people want more than pollution free

A8-17 Source: DaCRISS HIS, 2008

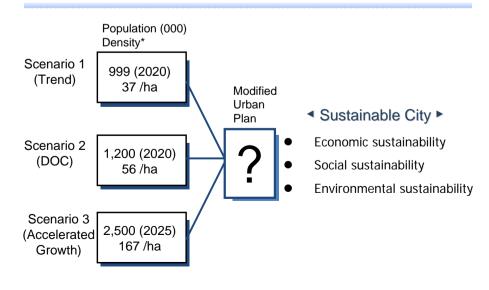
### ■ Redefined Vision and Goal (Assumption)

- **★** Danang Environmental City beyond Pollution Free **★**
  - · Amenity in urban area provided
  - Poverty free and powerful economy promoted
  - Ecological stability ensured
  - Cultural value preserved
  - Hospitable people in place
  - Safety & security ensured

### ■ Suggested Development Framework for Danang City

- Danang must be strong enough to lead economic development of the central region and country in changing paradigm toward post industrial economy
- Danang must grow farther by providing much attractive investment environment and employment opportunities to meet increasing demand in the central region
- A city with 1.2-1.5 million population is unable to provide diversified services in good quality and quantity which can be competitive and function as a truly effective magnet for the growth of CFEZ must be a size with at least 2.5 to 3 million population
  - A much enhanced growth scenario is proposed

### Urban Growth Scenario to be Considered in DaCRISS



<sup>\*</sup> Net population density : person/ha for urban area

### ■ Scenario 1 : Trend Growth (Do Nothing)

Districts	Popu (00	lation 00)	Growtl (%/y		Popu Den (no/	sity
Districts	2000	2007	2000- 2004	2005- 2007	Gross	Net
Hai Chau	184	195	1.4	1.0	93	99
Thanh Khe	154	167	1.2	0.6	180	221
Son Tra	103	120	2.5	0.7	20	54
Ngu Hanh Son	46	54	2.4	1.2	15	17
Cam Le	60	68	2.3	3.1	21	29
Lien Chieu	66	95	2.6	2.5	11	20
Hoa Vang	105	107	0.6	0.7	2	5
Danang City Total	716	807	1.6	1.2	6	21

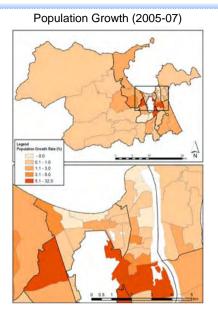
Total area

A8-18 2) Net of water surface, forests, etc

38

Urban area is extending towards north and south along main roads with low density in unplanned manner

# Population Density (2007) Population Density (2007) Population Density Net (2007) Population Density Net (2007) Population Density Net (2007) Population Density Net (2007) Population Density (2007)



### ■ Scenario 2 : Current Construction Plan

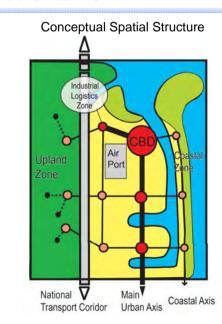
- √ 2020 population: 1.2 million
- ✓ North-South direction development
- ✓ Unclear city centre
- ✓ Relatively low density



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### Scenario 3 : Accelerated Urban Growth

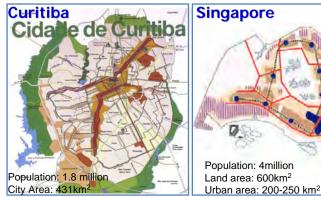
- ✓ 2025 population: 2.5 3.0 million
- ✓ North-South development direction
- ✓ Compact and high-density mixed land use
- ✓ Multiple urban centres
- ✓ Strong public transport corridor
- ✓ Green open space network



### ■ Examples of Good Practices

Sustainable Urban Development Public Transport-basedUrban Structure

Compact Urban
Area integrated with
Public Transport





=

### ■ Comparison of Alternative Scenario (Preliminary)

		Scenario 1 : Trend Growth	Scenario 2 : Current Plan	Scenario 3: Accelerated Growth
	Population(000)	999 (2020)	1,200 (2020)	2.5 – 3 million (2025)
Profile	Urban Area (km²)	244	244	244
	Urban Population Density (persons/ha)	37	56	167
	Economic: • Industry mix level • Investment attractiveness • Impact on the region	Low: Ineffective land use Investment attractiveness decreased Little positive impact on the region	Moderate:	High:  • Modern compact CBD and subcenters  • Strategic locations for new industries  • Strengthened integration with adjoining provinces
Sustainability	Social: • Inequality • Employment • Access to services	Low: • Employment opportunity limited • Outmigration Continues	Moderate:	Moderate to High:  • Expanded human resource development • Improved accessibility to services • Neighborhood community strengthened
	Environment • Pollution level • Preserved ecosystem • Disaster preparedness	Low:     Pollution spread     Ecosystem     negatively affected     Vulnerability worsen	Moderate to High:	Moderate to High:

### Preliminary Study on Main Subsectors

### Approach for Master Plan in the Next Step

### ◄ Planning Principles ►

- Sustainable city
- Compact urban area
- Public transport oriented development
- Competitive public transport system
- Competitive/ diversified economic development
- · Good living environment
- Disaster free
- Preserved Environment
- Others

### ◆ Strategic Planning Elements ▶

- Infrastructure (hard, soft, human)
  - ✓ linkages with global market
    - ✓ interprovincial connectivity
  - ✓ demand driven matching services
- Investment
  - ✓ FDI
  - ✓ SME
  - ✓ new investment opportunities
- Institution
  - ✓ investment environment
  - √ inter-organizational coordination
  - ✓ Participation & transparency

### **■** Economic Development : Achievement and Target

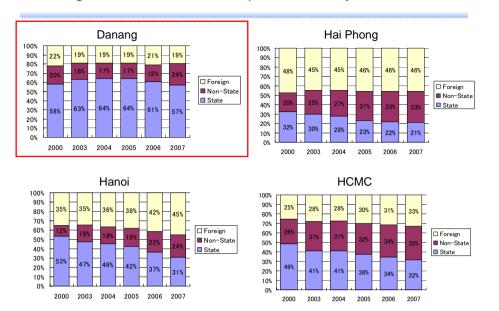
- ✓ more efforts are necessary to meet targets
- ✓ industry sector share is high but those of services increasing gradually

### GDP Growth of Danang

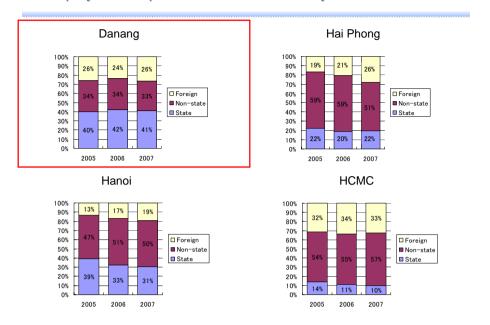
						GDP Se	ector		Ex	port	
Share of Labo	r Force	(%)			Agrl. Forest.	Industry, Constr	Servic e	Total	US\$ mil.	Growth %/yr	
Sector	2005	2007			Fishery	-uction	ŭ			, o, y.	
Industry	18	18		2004	4.8	20.3	7.1	13.2	309	19	
,				2005	10.2	16.6	11.1	13.8	349	13	
Trade / Repair	6	8	ACTUAL								
	_	-		2006	-10.2	1.3	21.3	9.0	377	8	
Hotel / Restaurant	3	5		2007	4.0	9.1	14.4	11.4	470	24	
Personal / Public Services	2	4		01-05	-	16.1	-	13.0	-	21-23*	
Services			TARGET	TARGET						1,720	
Transport	4	3		06-10	-	15.5	-	14.0	**	-	

\* 2001-20 \*\* 2010

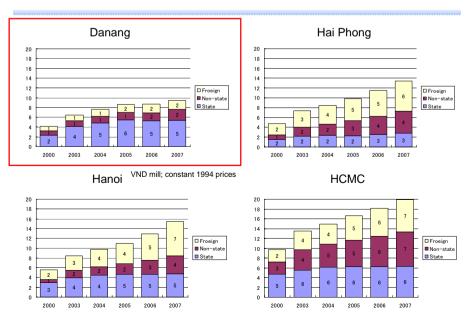
### • Danang's Economic Structure is Unique: Dominated by State Sector



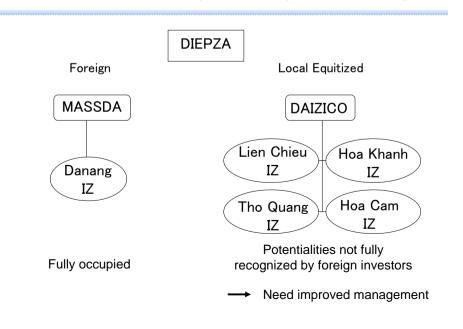
### Employment in private sector is extremely low



### • Per capita gross output of industry by foreign and private sector is also very low



### ■ Current Institutional Setting of IZ Management in Danang



### ■ Suggested Directions for Accelerated Economic Development

### Constraints

- Financial access
- Access to land
- Small local market
- · Insufficient infrastructure
- Low income level in the region
- Unfavorable administrative procedure

### Opportunities

- Rich environmental / cultural resources
- Increasing number of domestic and foreign visitors
- Transport hub for the central region
- Inflow of large amount of Foreign capital
- Attractive human resource development
- → Provide more attractive investment environment than other competing areas
- Support for private entrepreneurs (business planning, marketing, accounting, human resource management...)
- Strengthen tourism and higher education sectors
- Exploit new industry such as environment technology, healthecare, etc.
- Strengthen direct links between Danang and other major hubs in Asia

### Tourism Development

### ■ Weakness and Threats ▶

- Disintegration of tourism resource and destinations
- Relatively unknown
- Seasonality
- Lack of trained human resource
- Vulnerability to disasters
- Carrying capacity
- Inadequate infrastructure

### ■ Strength and Opportunities ■

- Diversified high quality cultural and environmental (mountain to beach) resources
- A gateway to GMS and central region
- A pivot of national land integration
- Increase in domestic and international demand
- Synergy effects through interprovincial coordination
- → Strengthen gateway function to / from the world
- → Integrate tourism resource / destinations in the region
- Establish more amendable and seamless environment throughout their travel

### ■ Summary of Environment Issues and Options

Field/Sector	Main identified issues	Options
Land Resources	Consumption of land / land reclamation with related consequences on the environment, incl. soil stability, and on the cost of service infrastructure	Orientations of the Master Plan and transport plan (refrain construction of roads and improve traffic management plan)     Strict land use policy     Strict ElA procedures     Master Planning for rural areas
Water Resource	Uncertainty on the availability of WR in the long term (climate change)     Increase of the water demand in particular during dry seasons (tourism)     Salinity of the rivers     Uncertainty of ground water quality	Integrated approach to WRM (river basin management     Construction of reservoirs?     Monitoring (incl. ground water)     Management of monitoring system
Water Supply	Expansion of the distribution network     Water losses	People awareness and tariff adjustments     Water demand management policy and NRW reduction     Water services improvement
Drainage and Sewerage	Under capacity for drainage     Industrial effluents not treated     Hospital effluents not treated     Lack of secondary and tertiary network     Connection of resorts     Standards not reached in many cases     Lack of master plan     Profitability of the sector	Tariff adjustment Enforcement of regulation Endure good performance of O&M of sewerage system Institutional strengthening Drainage company Sewerage fees collection

### Summary of Environment Issues and Options

Field/Sector	Main identified issues	Options
Solid Waste	<ul> <li>Industrial waste treatment</li> <li>Medical wastes treatment</li> <li>Profitability of the sector</li> </ul>	Modernize Khan Son and develop medical solid waste treatment facility     People awareness and tariff adjustment     Industries should pay for treatment service + technical assistance     Produce and sell energy from methane     URENCO strengthening (MIS/GIS)
Coastal Management	Pollutions due to effluents     (Danang Bay)	Control land reclamation
Natural and Technologic al Disasters	<ul><li>Typhoons</li><li>Land slides</li><li>Coastal erosion</li></ul>	Rebuild natural coastal environment Regulation / tankers Alert system (accidental pollutions) Arrange reservoir zones for floods in rural areas?
Natural Patrimony, People Awareness	Illegal activities (hunting, cutting, fishing)     Awareness of people to be improved, in particular vulnerable groups	Preserve tourism areas for tourists and local people Prefer soft investments (Path, information signals, shelters for pedestrians) to heavy ones (telephonic, access roads,) Environmental awareness program Library Educational and research efforts
Air	Industrial smokes     Construction dusts	Air quality monitoring system     Law enforcement     Management of monitoring system     Promote public transport and non motorized modes (incl. traffic safety for bikers)

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### ■ Transportation Development

### High mobility

Trip rate: no of trips/person/day

Mode	Including walk	Excluding Walk
Danang	2.8	2.3
Hanoi	2.7	1.9
HCMC	3.0	2.5
Kuala Lumpur	2.5	-
Bangkok	2.3	-

### • High Accessibility

Average Travel Time\*: 14.2 minutes

Trips with less than 10 minutes: 49.9% Trips with more than 30 minutes: 1.8%

HCMC: 19.2 minutes Hanoi: 24.4 minutes

	Mode	000 Trips/day	Share (%)	
	Bicyc	le	366	17.4
	МС	Driver	1,127	53.9
Debeate	IVIC	Passenger	179	8.5
Private	Car		8	0.4
	Truck		3	0.1
Sub Total		Total .	1,684	80.2
	Taxi		2	0.1
	Cyclo		2	0.1
Semi- Public	Xeom		4	0.2
1 abiio	Private Bus		2	0.1
	Sub 7	Total	10	0.5
Public	Bus		3	0.1
Walking			403	19.2
Total			2,101	100.0

### High Ownership level of motorcycle

- ✓ 90% of households own motorcycle and 58% own more than two
- ✓ For income level of more than 20 million dong/month, ownership level of car sharply increase

Car Ownership (% of Household)

Income (VND mil/mo)	Danang 2008	Hanoi 2005	HCMC 2002		
1.5>	0.1	0.2	0.5		
1.5 – 2.5	0.0	0.5	1.0		
2.5 – 4.0	0.6	1.1	1.5		
4.0 – 6.0	1.1	4.0	4.6		
6.0 – 8.0	3.6	7.5	6.8		
8.0 – 10.0	8.1	10.3	7.7		
10.0 ≤	17.8	21.1	27.2		
Total	1.5	1.8	1.6		

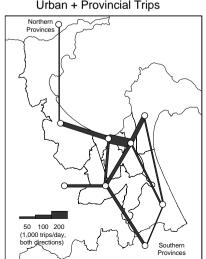
% of Household

		Danang 2008	Hanoi 2005	HCMC 2002	
Car		1.5	1.8	1.7	
M/C	2 ≤	58.1	44.7	58.9	
	1	31.6	39.8	33.8	
Bicycle		5.0	11.5	4.4	
None		3.5	2.3	1.3	
Total		100.0	100.0	100.0	
-					

### • Traffic in the city is composed of urban trips and provincial trips

### **Urban Trips** (1,000 trips/day

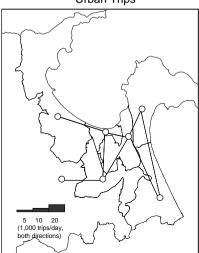
Urban + Provincial Trips



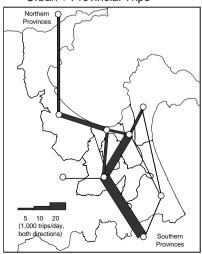
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### • Bus demand is very low in urban route but relatively large in provincial routes

**Urban Trips** 



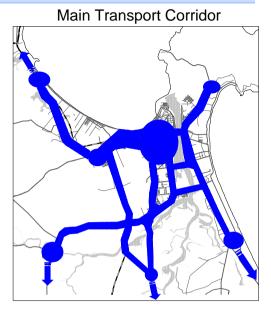
Urban + Provincial Trips



<sup>\*</sup> excluding walking

### Approach to Urban Transport Planning

- Define main public transport corridor
- Formulate integrated land use/urban development plan : high density mixed use along the corridor
- Prepare comprehensive corridor traffic management plan : control of private car, parking, etc



### GIS

- Preliminary work on GIS for urban and transport planning is ongoing
- Preliminary survey on the need for GIS by City Departments has been undertaken
- Step-wise GIS development plan will be formulated in the next step

### ■ Next Step

- Conduct of workshops in provinces in December
- Conduct of seminar in Danang in December
- Preparation of Progress Report by the end of January
- Discussion of Master Plan with steering committee in March
- Preparation of detailed planning for environment and transportation sectors

... thank you for your attention.