

# APEC Low Carbon Model Town (LCMT) Project

Feasibility Study for Low Carbon Town Development Plan in San Borja, Peru

7<sup>th</sup> Meeting of LCMT Task Force  
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- Project Positioning and Purpose
- San Borja Town Overview
- Project Implementation Structure
- Scope of Work
- Design Areas for CO2 Emission and Reduction Targets
- Schedule of Feasibility Study

## ■ Project Positioning

### Phase 1

Tianjin, Yujiapu (China)      Central Business District

### Phase 2

Samui Island (Thailand)      Resort Island

### Phase 3

Da Nang (Vietnam)      Mixed Use of Industrial/Commercial

### Phase 4

San Borja, Lima (Peru)      Residential\*

\*While Yujiapu focused on smart grids, and Samui focused on the use of renewable energy, San Borja can be characterized by transportation and solid waste management, which have not been discussed in previous cases.

## ■ Project Purpose

Develop a low carbon vision for San Borja and a portfolio type approach to low carbon town development by integrating the optimal combination of low carbon measures into existing planning processes. Establish an action plan for low carbon development.

The project will create a low-carbon model for primarily residential towns that can be replicated, especially throughout Latin America.

# San Borja Town Overview

## ■ Peru

→ Population: 30 million

→ 1.28 million km<sup>2</sup>

## ■ Lima

→ Population: 8.5 million

→ 43 Districts

→ 2,800 km<sup>2</sup>

## ■ San Borja – at the center of Lima

→ Population: 110 thousand

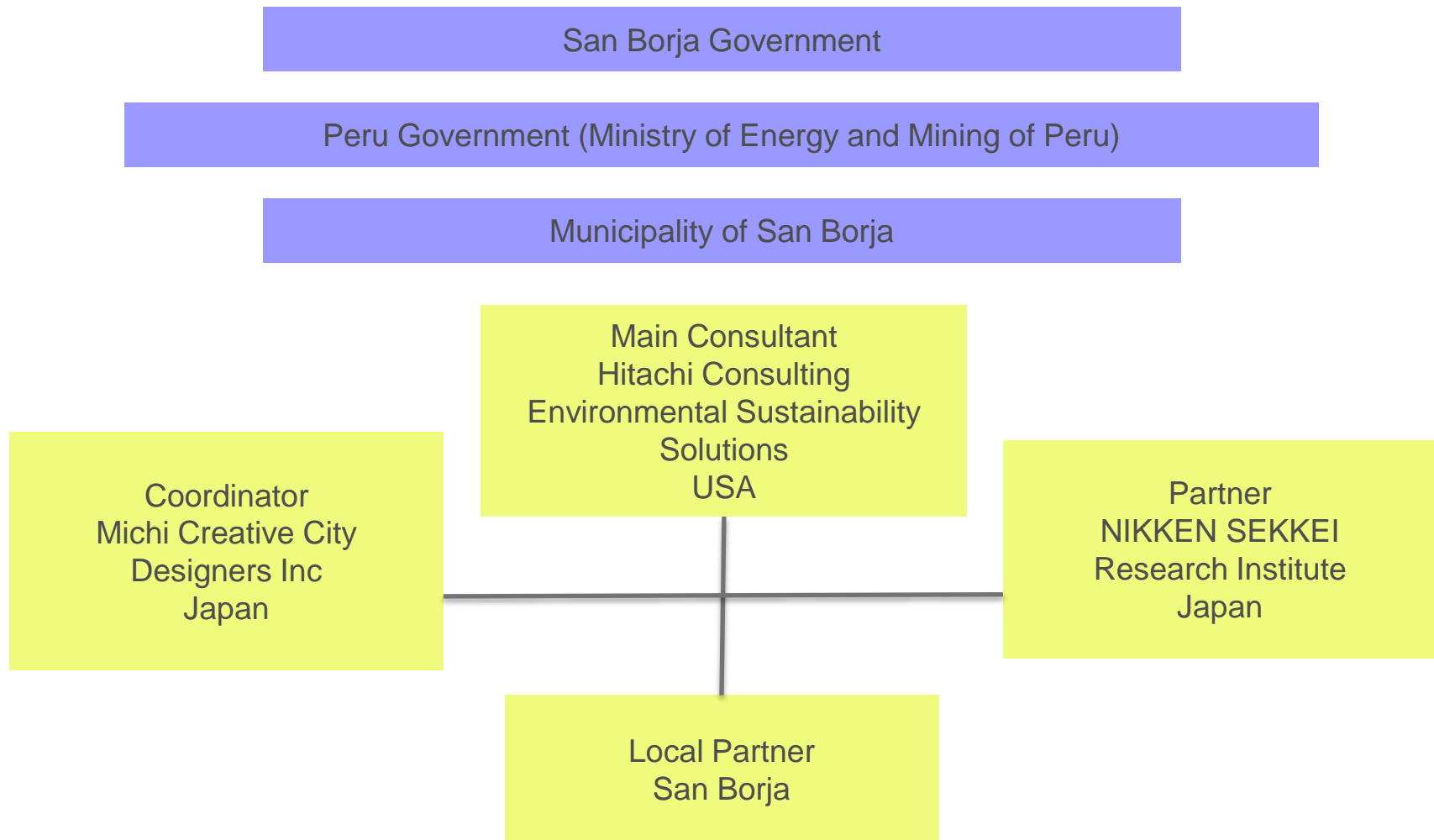
→ 9.96 km<sup>2</sup>



Subject	Overview
Land Use	<ul style="list-style-type: none"><li>• Residences occupy 80%</li><li>• Office, services, and commercial occupy the other 20%</li><li>• An impressive urban forestry initiative; 35,000 new trees planted since 2011</li></ul>
Energy	<ul style="list-style-type: none"><li>• 100% of energy is based on electricity</li><li>• Mild climate allows use of air conditioning in households and offices only occasionally in the summer</li></ul>
Transportation	<ul style="list-style-type: none"><li>• Large number of private cars</li><li>• Undeveloped public transportation system</li><li>• Bicycle sharing system (23.5 km of bike path, 8 stations, 1 operation system) is free of charge for San Borja residents</li></ul>
Solid Waste	<ul style="list-style-type: none"><li>• Solid waste management program, which includes recycling</li></ul>
Water	<ul style="list-style-type: none"><li>• Water management projects</li></ul>
Education	<ul style="list-style-type: none"><li>• Education programs</li></ul>

## ■ San Borja Environmental Policy:

- San Borja looks for a sustainable management of the main activities that impact the environmental quality of the district: transportation, construction, use of energy, waste and green areas conservation
- Policy Goal: Getting an important reduction of CO2 emission from current conditions





Step 1: Conduct background research

Step 2: Develop a high-level low carbon vision

Step 3: Define CO2 emission baseline in Business as Usual (BAU) scenario

Step 4: Define the CO2 reduction and environmental targets of the low-carbon town

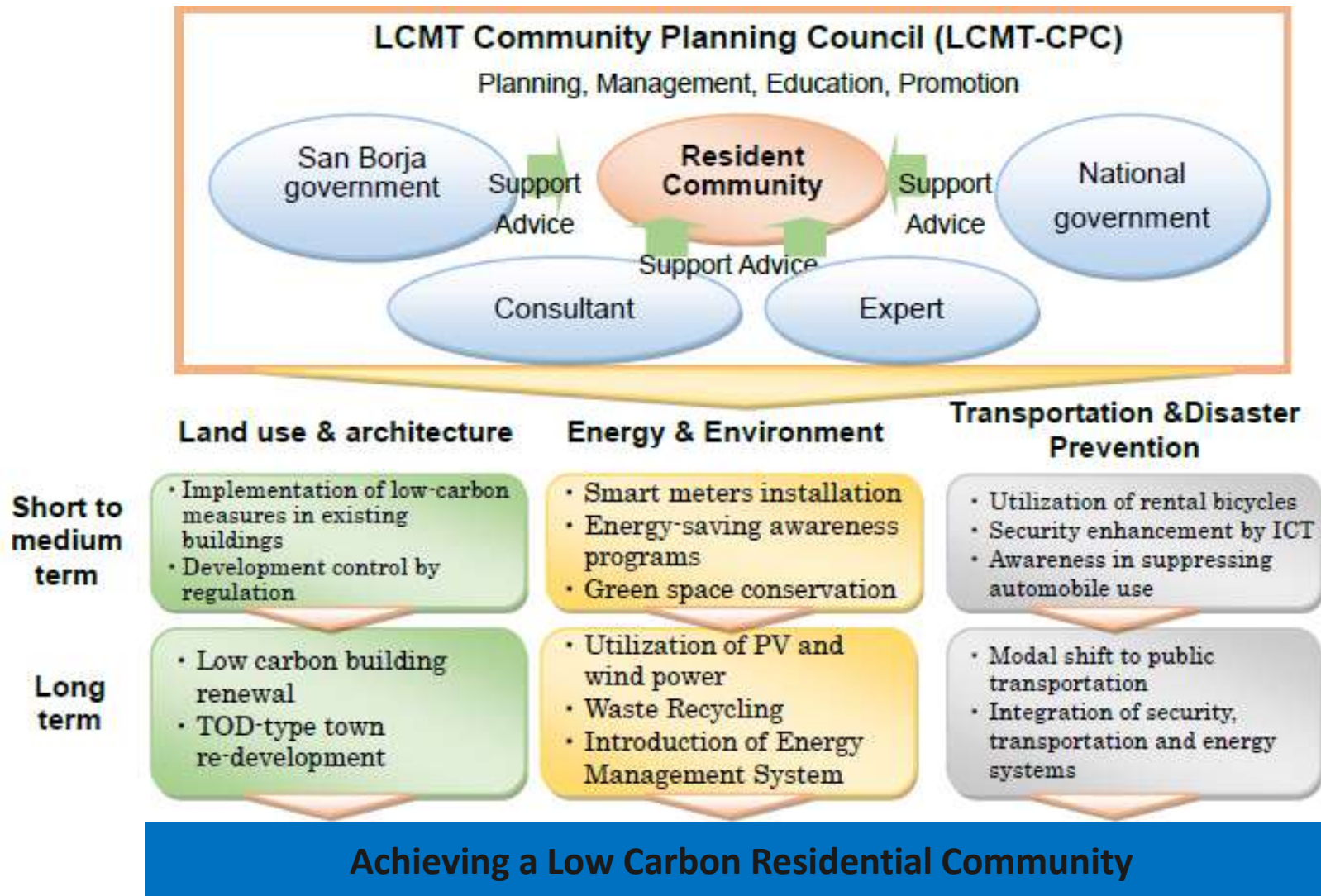
Step 5: Prepare a low-carbon guideline for categories of low carbon town design challenges

Step 6: Select CO2 reduction measures in each design category

Step 7: Analyze CO2 reductions and costs for the selected design measures

Step 8: Study implementing methodology and action plan of proposed CO2 reduction measures including potential implementers and funding sources





- Urban Structure Planning
- Houses and Buildings
- Transportation Planning
- Environment Planning
- Energy Planning
  - Area Energy Planning
  - Untapped Energy Planning
  - Renewable Energy Planning
  - Community Energy Management



#	Deliverables	Due Date
-	Signed Contract	5/6/2014
1	Kick Off Meeting	5/19/2014
2	Conduct Background Research	
3	Develop a high-level low carbon vision	6/30/2014
4	Define CO2e emission baseline in business as usual (BAU) scenario	
5	Establish CO2e reduction and environmental targets of the low carbon town	
6	Prepare a low carbon guideline by category of low CO2e design challenges	
7	Select CO2e reduction measures in each design category	
8	Analyze CO2e reductions and costs for the selected design measures	
9	Evaluate implementation approach and action plan of proposed CO2e reduction measures, including funding sources and implementing partners	