# High Quality Water Infrastructure Seminar

Organized by:









The Butuan Experience



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City Mayor, Butuan City Feb 21, 2017



# PRESENTATION ABSTRACT



OUR STORY, OUR JOURNEY and the LESSONS WE ARE LEARNING



# PRESENTATION FLOW

- Butuan: Context & Background
- II. A Two Stage Partnership
- Preparatory Stage
- Stage 1: Private Initiated PPPs
- Stage 2: Creation of a Regional Development Model
- III. Lessons in Procurement & Quality Infra Projects
- IV. Summary



# Butuan at a Glance: A Contextualizer

Population: 392,000

Land Area: 81,728 Has

No. of Barangays: 86

Revenue: 1.4 billion

(83% IRA share)

**Poverty Incidence: 26.7%** 

VS Philippines: 19.7%

**Classification:** Highly

**Urbanized City** 





# **Butuan** at a Glance

**Urban-Rural Mix: 40:60** 

Land Use: 47% land area can be

utilized for agro development

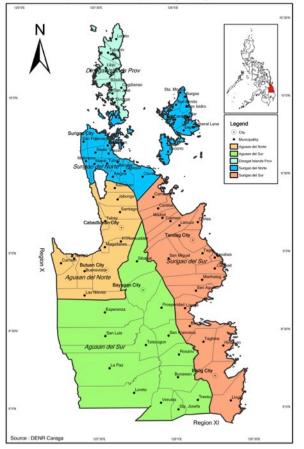
Functional Role: Caraga's

Regional Center, major trading and

commercial center and show window of history & culture in

Mindanao

Map 2.1. Base Map, Caraga Region







# Strategic Advantage

- We are access/gateway to Mindanao
- Location-wise, Strategic center of CDO, Davao, Surigao, Bukidnon and Agusan del Sur and del Norte



# **Infrastructure Deficit**

- International Port: X
- Water: 47% land area can be utilized for agro development
- Power Supply: Barges, Expensive
- Logistical Highways: Inadequate
- Eco Processing Zones: X
- Information Tech: Low Bandwith Connectivity
- Human Resources: Adequate, Undertapped



# What do we have here?





To dream, create, & rebuild the City.



# OUR VISION

To be a Great Hub City of Opportunities that spurs and supports Caraga's sustainable growth & development



# We want **BUTUAN** to be a **VIBRANT**, **COMPETITIVE**, **LIVABLE** and **SUSTAINABLE**SMART ECO CITY



# A Two Stage Journey

**Preparatory Stage** 

Stage 1: Private Initiated PPPs for City & Regional Development

Stage 2: Creation of the Regional Development Model



# INDUCTION TO THE JAPANESE WAY



# **CARBDP FLOOD CONTROL PROJECT**

Cotabato Agusan River Basin Development & Project



# 2000-2010: The Kajima Partnership

# **Taught Me:**

- The Japanese "Way"
- Work Ethic: No shortcut; Hardwork
- Values: Commitment to Quality & Accuracy
- Cost-Effectiveness: Plan Well, Execute Flawlessly

## **Introduced Me:**

Mentors & Influencers:
 Mr. Takano, Prof. Sam Tambuchi, Toyo University
 Make Lemonade out of your lemons

# **Ushered In:**

 TOYO Report: Study on Butuan as a regional hub, supported by HIDA

# **Ingrained in Me:**

The Primacy of PLANNING



# 1st Stage: Private Initiated PPPs for Regional Development

- Development of Basic Infrastructures
- High Productivity and High Value Added Agro & Aqua Business



# 1st Stage: Private Initiated PPPs for Regional Development

and water supply

**Development of Regional** High - productivity and High - value - added Concept Infrastructures through PPP Agro - and Agua - Business **Development of Basic Infrastructures Establishment of Basic Industry** Local consumption Rice Highof Energy **Farming** Prawn value-added Water **Biomass** Wind **Farming** Main Action products Concession Industry Milling Mini Hvdro Eel **Farming Future** Current Past Solar Geothermal · No farming of high -Low productivity Abandoned pools Current Frequent water cutoff Current value added products Blackouts (once a day) (3.7t/ha) Less employments Growing demands Condition Poor classes farmers Condition Growing demands Poor classes farmers Applicability Dissemination Revitalization of ponds High - productivity Local consumption of Energy Improvement of bulk Dissemination Callenges Callenges Dissemination Resolution of power shortage water business Problem Solving through PPPs ⇒ Establishment of Three Industries **Development of Basic Infrastructures through Private Initiative**  Higher yield of rice Revitalization and Vegetable growing Target (7 - 8t/ha) expansion of ponds Improved Income stable power supply Stable water supply Improved Income Employment Local consumption of Energy Regional development by Stable power Goal enhancement of local industry Development and operation of an Agro - Industrial park



through PPP, while creating job

# Japanese Government Support for Regional Development

Category	Authority	Project Name / Contents	FY	Entity
Support for study	METI	Study on Economic Partnership Projects in Developing Countries in 2016 Preparatory Study of Water Supply and Treatment Equipment in Taguibo Industrial Park in Butuan City, Mindanao, Philippines	2016	Chodai Co., Ltd. Kiso-Jiban Consultant Co., Ltd. Okaya & Co., Ltd. Kurimoto, Ltd. Cosmo Koki Co., Ltd.
	METI	Study on Economic Partnership Projects in Developing Countries in 2016 Feasibility Study of Wind Power Generation Project in Caraga Region, Mindanao, Philippines	2016	Chodai Co., Ltd. Shizen Energy Inc.
	OCAJI	The Survey of Special Economic Zone and Surrounding Infrastructure Development Project for Butuan City on Mindanao Island in the Philippines	2015	Overseas Construction of Japan, Inc. Shimizu Corporation Chodai Co., Ltd.
	JBIC	Feasibility Study for Taguibo River Mini-Hydro Power Project in the Mindanao Island, Philippines	2015	Chodai Co., Ltd. Kiso-Jiban Consultant Co., Ltd.
	METI	Study on Economic Partnership Projects in Developing Countries in 2015 Feasibility Study of Biomass Fuel Export and Power Generation Projects in Mindanao, Philippines	2015	Chodai Co., Ltd. BPC inc. Omiya-ss Co., Ltd.
	JICA	Feasibility Survey for Regeneration of the Prawn Farming Industry through the Tse of Food Chain Promotion and Conventional Soil Microbe Diversification Promotion Materials (Lu-All)	2014	CTC Co., Ltd. Green Asia Engineering Corporation Chodai Co., Ltd. Kiso-Jiban Consultant Co., Ltd.
	JICA	The Preparatory Survey on the Wawa River Mini-Hydro Power Project in the Province of Agusan del Sur	2014	Chodai Co., Ltd. Industrial Dicesions, Inc. Ernst & Young Japan Kiso-Jiban Consultant Co., Ltd.
	METI	Study on Economic Partnership Projects in Developing Countries in 2012 Study on the Wawa River mini-hydro power project in the province of Agusan del Sur	2012	Chodai Co., Ltd. Kiso-Jiban Consultant Co., Ltd.
HR	HIDA	The training of Planning, Designing, Operating and Maintenance for Hydro Power Projects in the Philippines	2012	Tsukuba Denki Co., Ltd. Chodai Co., Ltd.
Loan	JBIC JICA	step loan for Ashiga river hydro power project     step loan for Taguibo river bulk water concession project		Asiga Green Energy Corp.  Taguibo Aquatech Solutions Corp.



# **Ongoing PPP Projects around Butuan**

As of October 2016

## Eel Farming

- Japanese feed utilized
- JAS (Japan Agricultural Standards) accredited Japanese equipment installed in a process factory to be started in 2016

## **Prawn Farming**

- Pre-F/S funded by JICA completed in 2014
- Using soil/water improvement product named "Lu-All" developed by Japanese SME for revitalization of abandoned ponds

## Rice Farming/ Rice Milling.

- Doubled the average yield by using soil/water improvement product, "Lu-All"
- Farming of high-value Japonica rice

## **Basic Infrastructure Survey**

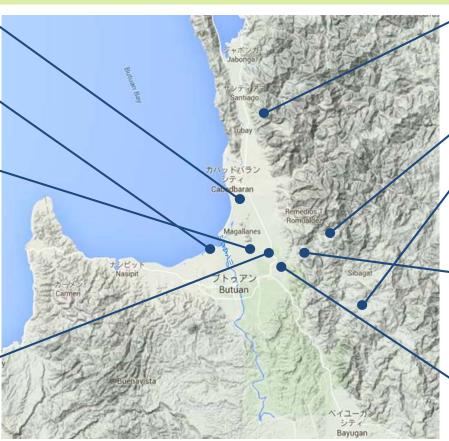
 As a result of OCAJI survey, proposals made for the improvement of distribution infrastructure necessary for the establishment of value chains for primary commodities

## **Feed Producing**

 F/S ongoing with Japanese manufacturer to develop feed production business for stockbreeding and aquaculture.

### **Biomass Power**

Pre-F/S funded by METI completedin 2015
Establishment of a stable supply of rice husks
for a 2MW electricity generation plant.
•Construction of a sales model for secondary
products, and preparation for
commercialization.



## Asiga River Hydro Power

- 8 MW
- Operational by FY 2016
- Power generation equipment by Voith Fuji installed
- Two-step loan provided by JBIC

### **Wind Power**

Ongoing pre-F/S funded by METI in 2016

## Taguibo River Hydro

- 5 MW
- Operational in FY 2019
- Pre-F/S funded by JBIC completed in 2015

## Wawa River Hydro

- 20 MW (study phase)
- Operational in FY 2020
- Pre-F/S funded by METI completed in 2012
- JICA PPP F/S funded by JICA completed in 2015

## **Bulk Water Supply**

- 30,000 m<sup>3</sup>/day (to be increased to 80,000 m<sup>3</sup>/ day in the future)
- Project period: 2015-2040 (with option to extend by 25 years)
- Two-step loan provided by JICA
- Japanese equipment installed

### **Industrial Park**

- 141 hectare low-carbon industrial park
- Rice mill constructed in May 2015, using machinery produced by Japanese makers
- Ongoing pre-F/S funded by METI in 2016



# Here are some of the Water Infrastructure Projects



# **Bulk Water Supply**

- 30,000 m3 /day (to be increased to 80,000 m3/ day in the future)
- Project period: 2015-2040 (with option to extend by 25 years)
- Two-step loan provided by JICA
- Japanese equipment installed





# Asiga River Hydro Power

- 8MW
- To be operated in FY2016
- Installed power generation equipment by Voith Fuji Hydro
- Two step loan by JBIC provided





# Taguibo Small Hydro Power Project

- 5 MW
- Operational in FY 2019
- Pre-F/S funded by JBIC completed in 2015





# Cabadbaran Aquatech Resources Corp

- Japanese feed utilized
- JAS (Japan Agricultural Standars) accredited
- Japanese equipment installed in a process factory to be started in 2016





# 2<sup>nd</sup> Stage: Creation of the Regional Development Model through Public - Private Partnership

2016 Onwards



# From COO in Private Sector to City Mayor - "Regional Development 2.0"



## EQUI-PARCO CONSTRUCTION COMPANY

General Engineering \* General Building

Established in September 1991 by both Ronnie Vicente C. Lagnada COO, and CEO of Equi-Parco, and is now one of the largest construction companies in Mindanao.



First Stage: From 2011 to 2016



# **Butuan City**

Central city for industry and trade in the Caraga Region (Region 13), newly established in the northeast of the island of Mindanao in 1995. Population of 350,000. Flourished in the 1950s as a major base for timber exports to Japan.



**Second Stage: To** 



# Stratified Cooperation between Japan and the Philippines: "Private - Private", "Public - Public" and "Public - Private" Partnerships

# **Administrative policies**



30 Jun 16: Lagnada inaugurated as Mayor

10 Priority Impact Projects to be accomplished in the first 100 days of Lagnada's administration:

- 1) Bright Butuan
- 2) Clean Butuan
- 3) Orderly Butuan
- 4) Progressive Barangays
- 5) People Friendly City Hall
- 6) Excellent Driven City Hall
- 7) Clean Water
- 8) Fast and Efficient Licensing in Butuan
- 9) Transparent City Hall
- 10) Safe Butuan

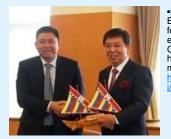
"Through forging partnerships with forward-thinking Japanese autonomies, we wish to bring about environmentally-conscious and sustainable growth and development."

## Plans for inter - city cooperative agreements



11 - 13 Aug 16: Toyama city official visited Butuan

### In Oct 16: Toyama and Butuan Inter-city Cooperation commenced



•[26 October] Toyama and Butuan entered into an MoU for inter-city cooperation and exchange in the "UN CoE Local Governments Network Event" held by Toyo University.(For more details:

http://www.apppi.net/site/apppi/34361.html)



[20 October] Mayor of Butuan made a courtesy call to Mayor of Toyama, Mr. Masashi Mori

# Regional Development Plan by Phase

# **Phase**

### Phase 1

Development of basic infrastructure

## Phase 2

Establishment of stable supply of primary commodities from basic industries

## Phase 3

Development of industrial park

# **Project Sector**

## **Energy**

### Water

## **Agriculture**

## Aquaculture

## **Forestry**

Development and management of an industrial park (special economic zone) for the forestry, fisheries and food-processing industries

# **Status / Challenges**

- Frequent power stoppages
- Increasing demand for electrical power
- Irregular water supply failures
- · Increasing waterdemand
- Alleviation of production shortages of the staple rice and the adding of supplemental value
- Majority of agricultural workers living in poverty
- Increase in abandoned prawn farms,
- a former key industry
- Declining employment rates
- Need to develop new industries
- Decline in lumber industry as a result of regulations put in place to curb deforestation and environmental

### damage

Developed and run as an environmentally-conscious, low-carbon industrial park, connecting all three industrial sectors, from production to processing, distribution and sales.

# Projects put in place to address

# challenges

- Hydropower
- Biomass
- Wind
- Geothermal
- Bulk water supply
- Rice farming
- Rice milling
- Prawn farming
- Eel farming and processing
- [Biomass power]

Realization of regional development through the creation of a PPP-led regional revitalization model which will create employment and raise wages



# Our Lessons Learned

- 1. Helping Factors in Making Private Initiated PPPs fly
  - Comprehensive Assessment & Preparatory surveys of the infra project
  - A good feasibility study
  - A stress-tested strategy-execution plan
  - Competent Partners who share the same development values

# Our Lessons Learned

- 2. What should be high considerations in ensuring the projects are "High Quality Infra Projects"?
  - Ensuring alignment with Socio-economic development and development Strategies of the city
  - Safety & Resilience
  - Cost Effectiveness through a judicious life cycle cost management
- 3. Effective Mobilization of Financial Resources through PPP
- 4. The Work Continues...

# Further activities for Regional Development

**Private** 

Economic Development through Creation of job opportunities, increment of income

Private Projects
(Renewable Energy, Industrial Park etc)

Infrastructure (Logistic Road, Port Expansion, Strong Power Grid etc)

Comprehensive Master Plan for Regional Development

Further development of the projects

Governmental Support such as **ODA** 

Knowledge based on inter - city relationship

**Public** 

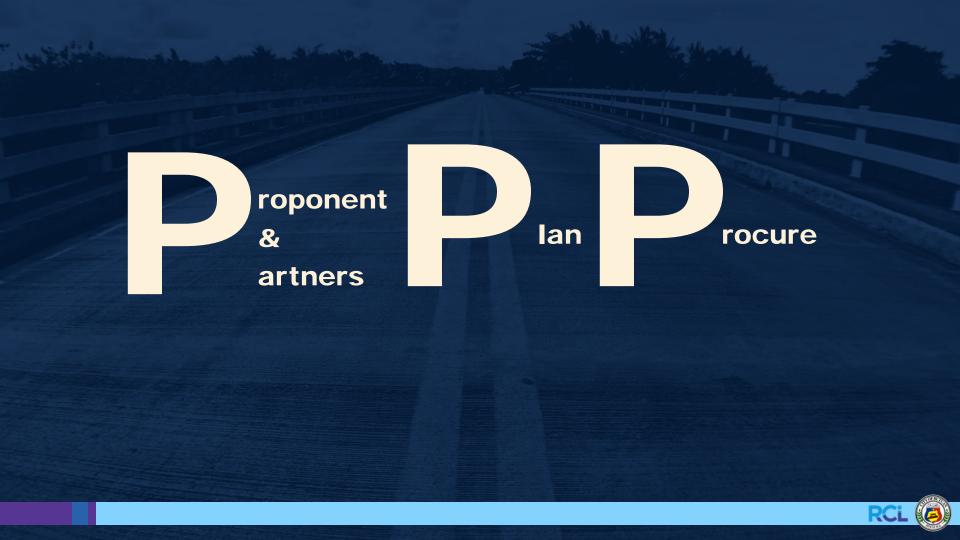
# Summary

- Lack of infrastructure impedes economic growth & social development in our cities & provinces
- Adequate Quality Infrastructure empowers cities to unleash its potentials
- With the right plan, the right proponents, the right partners **Quality Infrastructure** can be PROCURED.



# Quality Infrastructures are built to last. With the Right Ps, they are Possible:





# 

Philippine Progress is Possible





