

# Proposed Tacloban Recovery and Rehabilitation Plan

April 2014



Tacloban Recovery and Sustainable Development Group

IN PARTNERSHIP WITH:

**UN HABITAT**  
FOR A BETTER URBAN FUTURE

with support from:





The Tacloban Recovery and Rehabilitation Plan (TRRP) identifies the immediate actions and operational strategies that will lead our city and our people towards recovery, rehabilitation, and sustainable development.

Considering the ‘unique character of our city’, the TRRP emphasizes on the building back better principle and actions consistent with our long-term development vision, policies and plans.

# Guiding Principles



**Inclusive and holistic**– socially, environmentally, economically and culturally balanced redevelopment; disaster recovery as an “opportunity”

**Building back better and safer**- exposure to future risk would be reduced; long-term city benefits will not be sacrificed for short-term individual gains; Actions shall **address vulnerabilities and promote DRR**

**Multiple resource generation/financial sources** to achieve broad base impacts

**Needs-based and results oriented**– considerate of both pre and post disaster realities and complements existing capacities

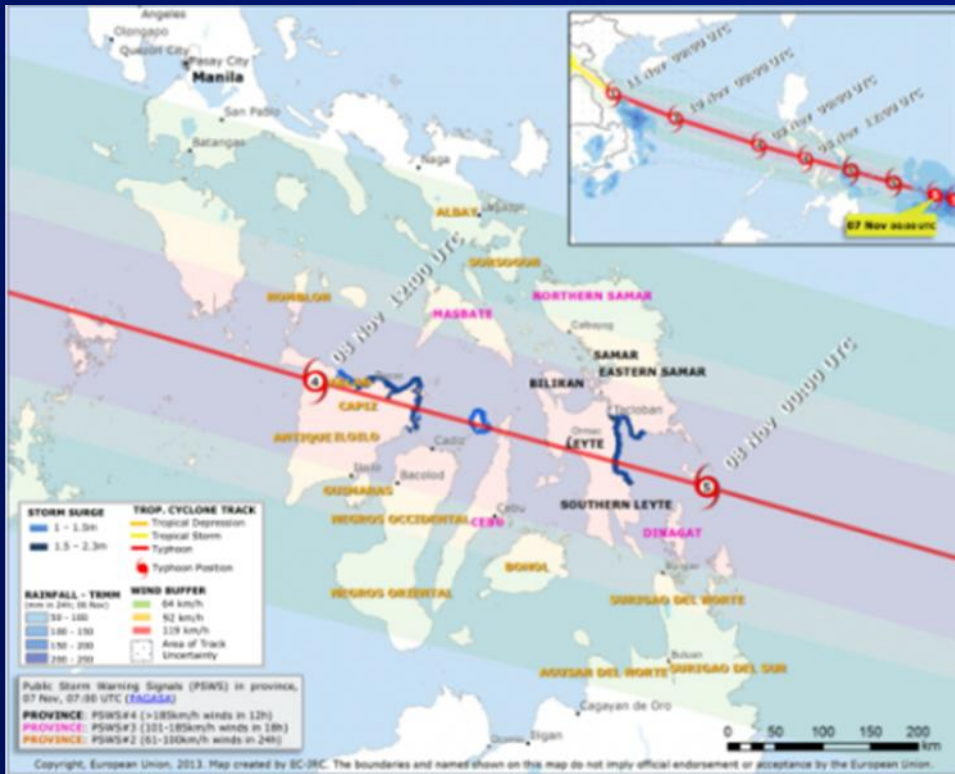
**Uses emergency responses/actions** as building blocks for long-term recovery

**Collaborative, multi-sector, participatory**– national and local ownership and engaging all stakeholders especially the communities



# Our Key Planning Considerations

# Key Considerations



## *Yolanda typhoon path in Visayas*

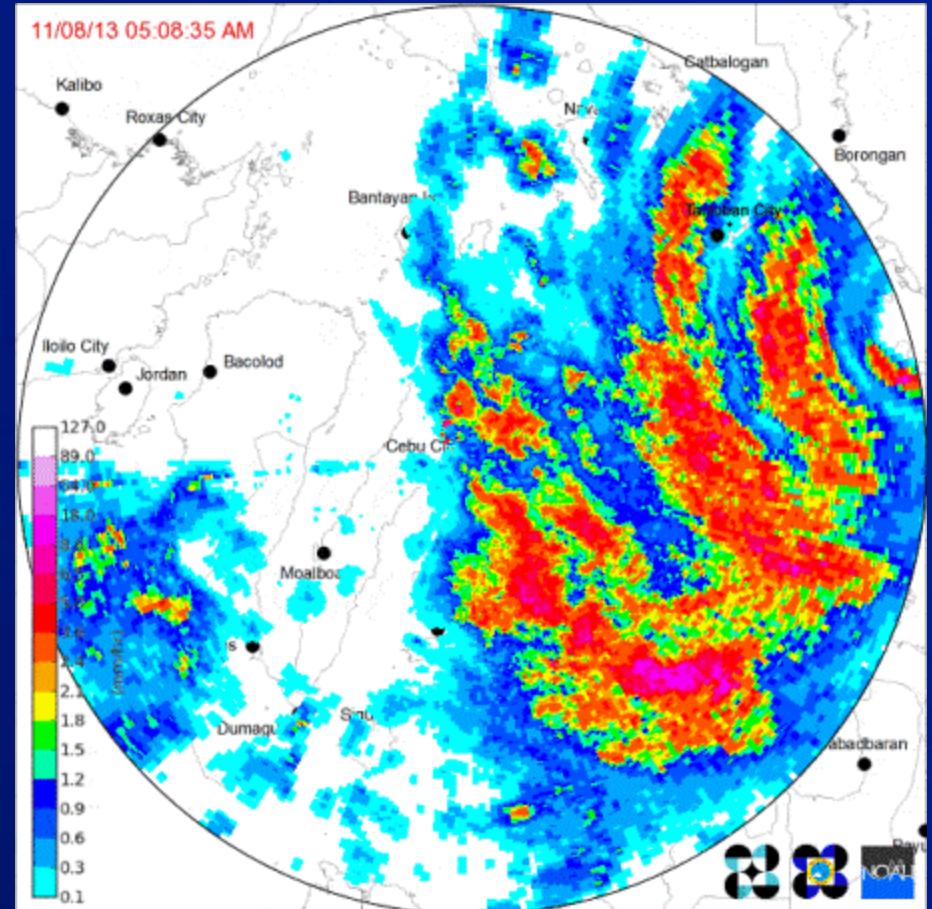
Source: PAGASA

- On 08 November 2013, **Super Typhoon Haiyan** (Philippine Name: Yolanda) hit the country with winds of more than 378 km/hr and storm surges of 4 to 6 meters high.
- Our city is **the regional hub** of Eastern Visayas (Region VIII) and the fastest growing city in the country, sustained the greatest damage to housing, business, and infrastructure.
- To date, the city is still reeling from the aftermath of the disaster.

# Key Considerations

## 1. Our Geographic realities

- Tacloban's geographic location lies in the path of the **20 typhoons on average that hit the country every year**
- It is also situated in that part of Leyte island where a “funnel” effect occurs and which tends to **invite the strongest storm surges**
- Its physiographic characteristics makes it **vulnerable to many forms of natural disasters**



# Key Considerations

## 2. Yolanda's impact on Shelter and Livelihood

- Of the 30,513 totally damaged houses in our city, **90% are along the coast**. The number of partially damaged houses is 23,718.
- 42 of the city's 138 barangays have coasts and lowlands considered as danger zones. These danger zones are mostly occupied by **informal settler families**.
- Of houses totally damaged, **about 10,000 belong to the urban poor**. Most of their sources of livelihood have been destroyed by the typhoon.



# Key Considerations

## 3. Yolanda's impact on Social Facilities and Services

- Over 6,000 people still stay in tents, schools and other evacuation centers which disrupted classes and other functions.
- All the city's 7 hospitals (2 gov't, 5 private) and 17 barangay health centers have sustained major structural and equipment damage.
- 90% of all pre-schools, elementary and high schools, and universities were badly damaged; a few are not planning to re-open.
- Some 36 public buildings incurred major damage to roofs, ceilings, windows, electrical and plumbing systems





# Key Considerations

## 4. State of lifeline Infrastructure and Utilities

- As of March 31, 2014, 100 percent out of the city's 138 barangays have **power supply**. 82 percent (29,784 out of 35,937 connections) have been energized.
- Water services have also been restored as of November 2013 however the **water supply** only covers 35% of the city's requirements.
- While **major drainage channels** have been cleared, they will require upgrading and security to keep them permanently functional.
- **Communication land-lines** are not yet fully restored.



# Key Considerations

## 5. State of Commerce and Industry

- The majority of the **city's business establishments** were damaged and suffered interrupted operations. As of April 30, 2014, only 20 percent (3,340 out of 16,473 registered in 2013) of the city's total establishments have renewed their business licenses.
- **Fish and produce trading** has been disrupted (affecting mainly poor fishermen and small traders).
- Many **commercial activities** are hampered or have not reopened. For 2014, 72 have filed temporary closure while 115 filed retirement closure.



Source: [www.philstar.com](http://www.philstar.com)

# Key Considerations

## 6. Condition of Natural Environment

- Informal settlers, commercial and industrial establishments traditionally occupy **coastal danger zones** (which compromise the natural state of the coast).
- Natural siltation and man-made obstructions affect **rivers, creeks** and other natural drainage channels.
- Developments are encroaching into **timberlands**





# Potentials & Opportunities *(Pre and Post Disaster)*

# Potentials & Opportunities

## Our Human Resources

- Taclobanons are **highly educated** (221,174 population; *NSO 2010*).
- Taclobanons are **self-reliant and hopeful** as evidenced by our unanimous vote to convert the city into a Highly Urbanized City.
- Taclobanons are **resilient and able to rise above serious difficulties**; they immediately started rebuilding their lives and economy after the typhoon.



Source: flicker.com  
Wikipedia.com

# Potentials & Opportunities

## Our Land and Water Resources

- Tacloban has **areas on high ground that are safe from disasters**; these lands are suitable for urban development and other productive uses
- Lands suitable for **agriculture and agro-industrial development are available** especially in the northern part of our city.
- The timberland area offers possible water sources and **eco-tourism opportunities**
- The coastal areas offer possibilities for **productive uses** (subject to DRR considerations)



# Potentials & Opportunities

## Our City is the Regional Commercial Center

- Due to our strategic location, Tacloban City is the **premier city of Eastern Visayas** -the gateway to the region, and the center of trade, commerce, industry, education, communication and technology.
- Our city is the home to the **Daniel Z. Romualdez Airport**, the seaport in San Pedro Bay, and the Eastern Visayas Regional Growth Center (EVRGC) Economic Zone.
- The economy of Region VIII and other neighboring Regions are **extensively linked with Tacloban's services** and urban facilities.



# Potentials & Opportunities

## Center of Culture, Arts and Education

- Tacloban is at the core of the unique **Waray-Waray culture** and tradition
- Our city is the center for education in the Region:
  - 35 private and public Pre-Schools
  - 58 Elementary Schools
  - 27 High Schools
  - 19 Tertiary Schools (including the University of the Philippines)



Source: CBD Historical Mapping  
[taclobancityguide.blogspot.com](http://taclobancityguide.blogspot.com)



# Potentials & Opportunities

## Historical Significance and Heritage Resources

- Tacloban played a **significant role in Philippine history** (the landing of the Gen. Douglas MacArthur and his forces that liberated the country during WWII)
- General MacArthur set up his headquarters at the Joseph Price Mansion which is now **a heritage landmark**.
- Tacloban served as the temporary seat and **capital of the country's Commonwealth Government** until its final liberation.
- Our city's heritage resources provide Tacloban with its unique identity that brings about **pride of place for the people**.



Source: CBD Historical Mapping  
noelizm.blogspot.com

# Post Disaster Potentials & Opportunities

## Economic & Livelihood Anchors

### Short-Term

1. Construction
2. Trading
3. Agricultural Diversification

### Medium to Long Term

1. Industrial Development
2. Tourism
3. Business Process Outsourcing
4. Economic Infrastructure Development



# Post Disaster Potentials & Opportunities

## Economic Recovery and Rehabilitation Anchors

### 1. Construction

- Tacloban will rebuild (houses, institutions, infrastructure). This will **require construction labor**, which the currently unemployed can provide, with some skills adjustment.
- The rebuilding will **spur ancillary industries** and create a huge demand for a wide range of construction supplies as well as services.
- The construction of the 7,000 houses in the north will **serve as the catalyst**. This may generate about **P300-500M labor cost**. This amount can boost the purchasing power of the families and create an impact on the economy.

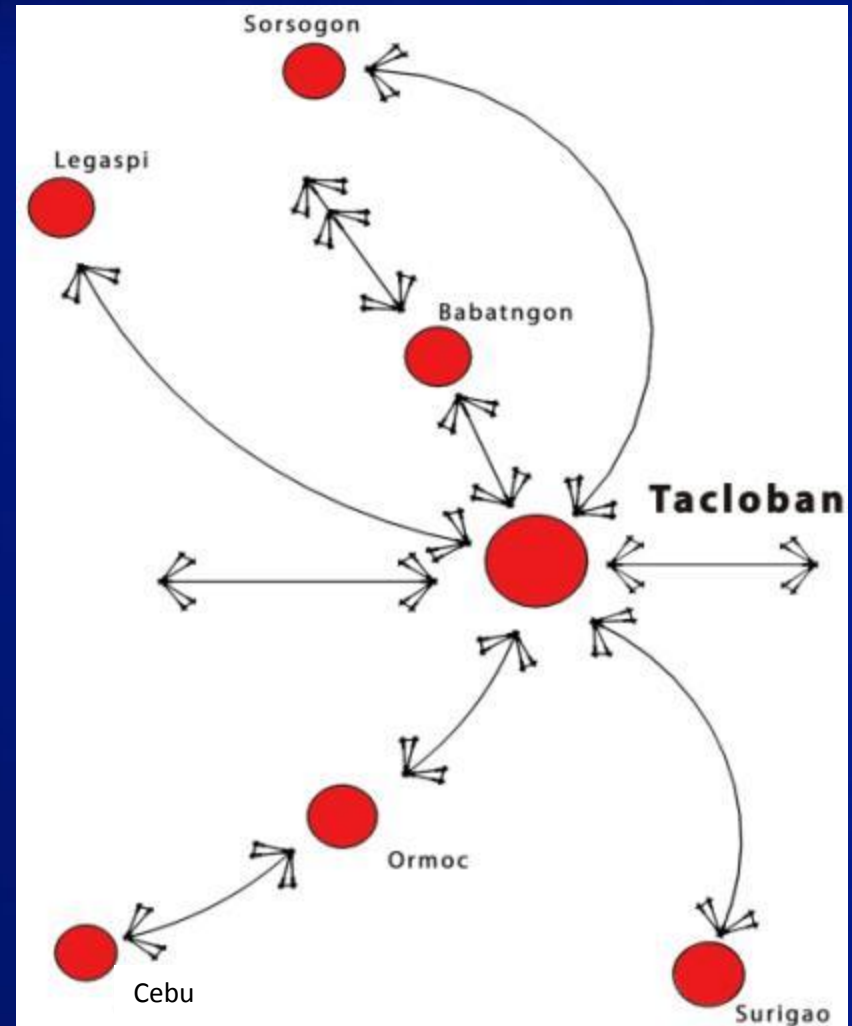


# Post Disaster Potentials & Opportunities

## Economic Recovery and Rehabilitation Anchors

### 2. Trading

- Tacloban has a huge market of 4 million people; it has to redeem its role as the region's trading hub.
- A trading center can provide an impetus to the reemergence of Tacloban as the regional trading hub.
- Traders can establish a wide range of wholesale stores at the trading center which can also accommodate ancillary facilities such as a slaughterhouse, warehouses, cold storage, restaurants, and a transport terminal.



**ECONOMIC TRADE ROUTES**

# Post Disaster Potentials & Opportunities

## Economic Recovery and Rehabilitation Anchors

### 3. Agricultural Diversification

- In addition to traditional means of support to fisher folks and rice and corn producers, **new crops for cultivation** and animals for raising will be introduced to create new opportunities for livelihood and food security.
- Areas for **vegetable farms** and for **free-range poultry** will be set aside in the government property in the north in **collaboration with major supermarket chains** in a contract farming arrangement.



# Post Disaster Potentials & Opportunities

## Economic Recovery and Rehabilitation Anchors

### 3. Agricultural Diversification (long term)

- Another area can be set aside for raising goats which has a **huge market** in the Middle East, Southeast Asia, and the USA.
- Agriculture and fisheries **trigger a demand for other industries** such as seed production, farm and fish farm equipment, implements and tools, farm and fish farm supplies, agro-processing, fish processing, feed mills, marketing, packaging and cold storage.



Source: [makaragroup.blogspot.com](http://makaragroup.blogspot.com)  
[www.foodpolitics.com](http://www.foodpolitics.com)



Our “Vision”  
for our city  
and people...

# Vision



## TACLOBAN CITY: Resilient, Vibrant, Livable

### Resilient:

- *WE will have the **capacity to “bounce back”** from **disaster impacts***
- *WE will be **able to manage** the un-avoidable (e.g Typhoons)*
- *WE will be **able to accommodate and adapt** to new development demands*

### Vibrant:

- *WE will have a **bustling economy***
- *WE will be **attractive to tourists and investors***

### Livable:

- *WE will be living in **peaceful, safe, and sustainable** environment*
- *WE will have **access to prime social services***
- *WE will have **continued jobs and livelihood opportunities***
- *We will sustain **our transparent and accountable governance system that listens and works with all of the city’s constituencies***





# Overall Strategic Framework

# Recovery and Rehabilitation



## Core Drivers of the City (what makes the city going?)

### **SOCIAL and SHELTER**

(Land, Housing, Access to Electricity, Water, Education & Health Services)

### **ECONOMIC**

(Livelihood, Agriculture, Trade/Commerce, Services)

### **INFRASTRUCTURE**

(Roads, Bridges, Public Buildings)

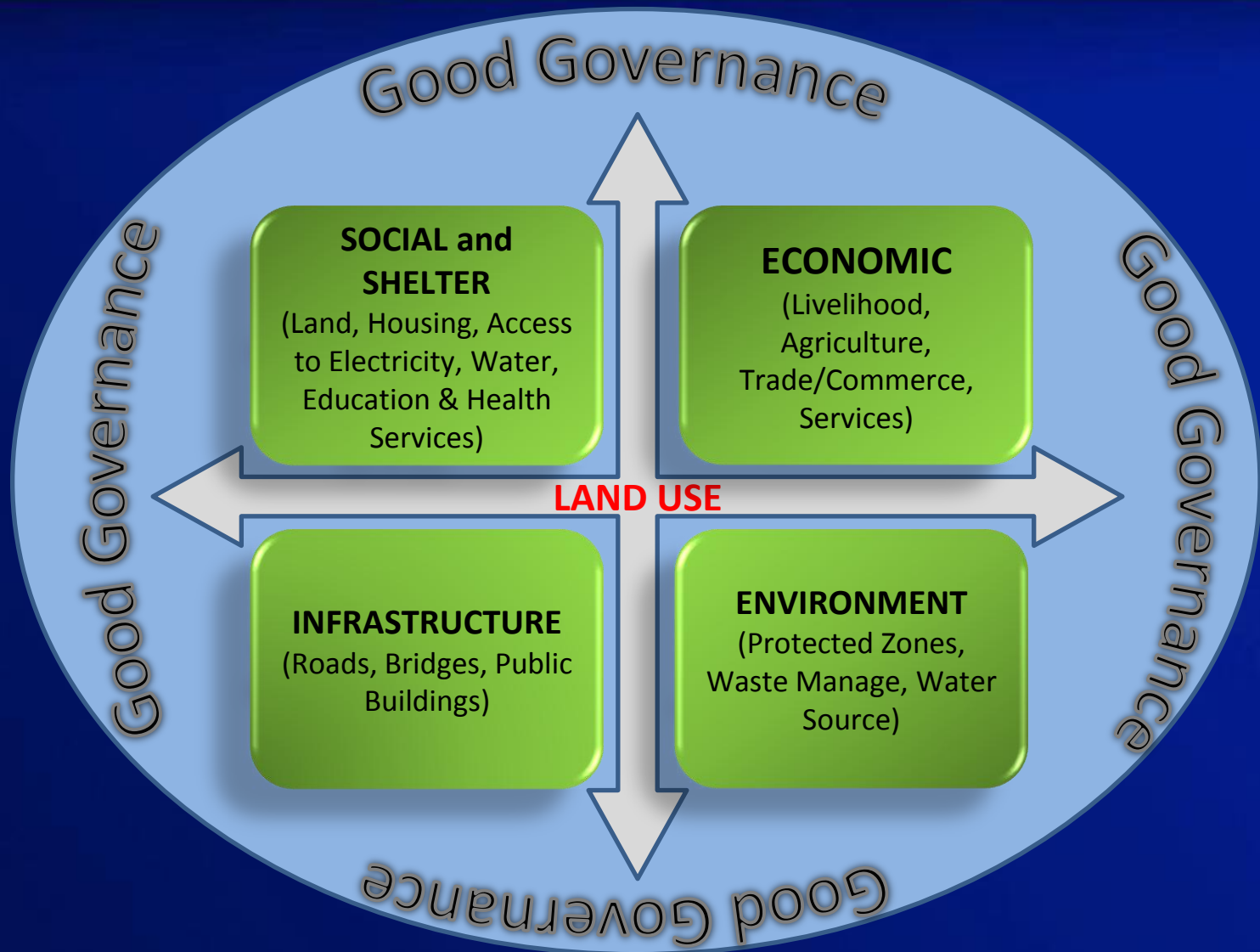
### **ENVIRONMENT**

(Protected Zones, Waste Manage, Water Source)

### **Actions would be**

- **For whom?**
- **Where?**
- **What would be done?**
- **How?**
- **When?**

# Recovery and Rehabilitation Framework



# Recovery and Rehabilitation Planning



## Strategy Components

- Economic Revitalization
- Physical Asset Optimization
- Human Resource Mobilization
- Governance Initiatives

## "Safe" Zones

Planned Urban Expansion



## Danger & High Risk Zones

Controlled, low-density growth

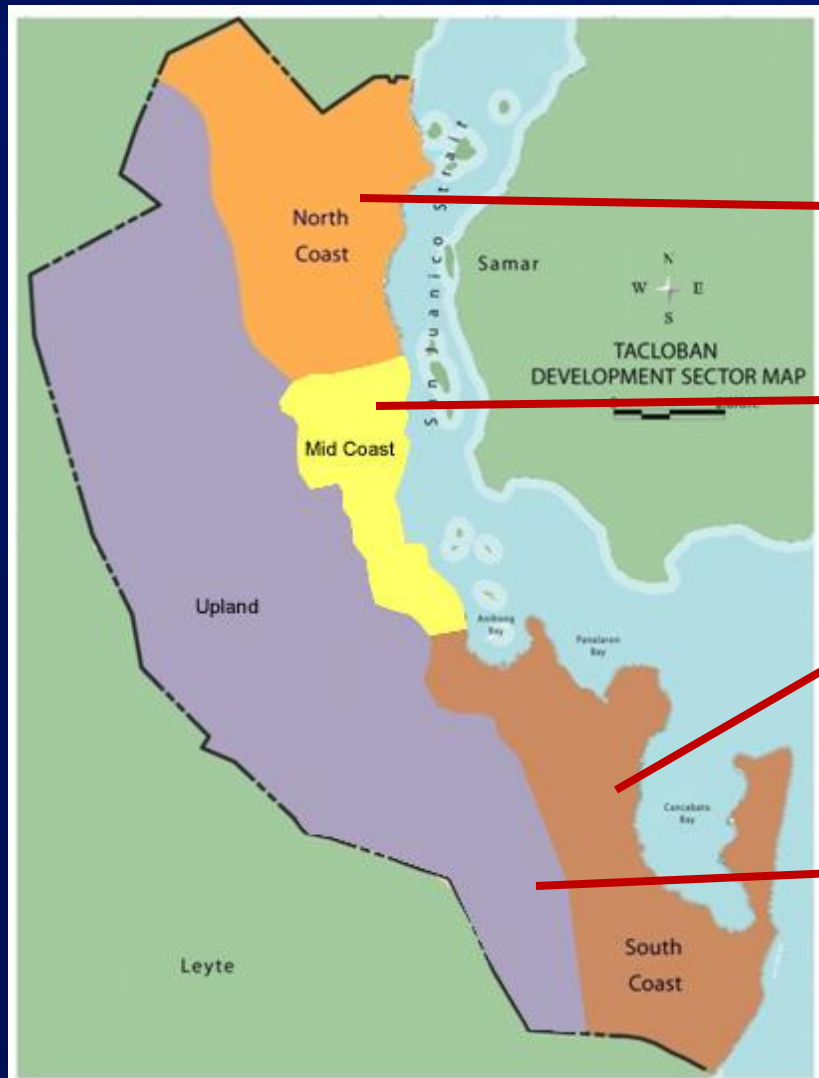
## Plan Elements

- Land Use & Disaster Resiliency
- Shelter and Livelihood
- Social Services and Institutional Facilities
- Infrastructure and Utilities
- Commerce and Industry
- Natural Environment



# District Development Strategies & Policies

# Development Districts



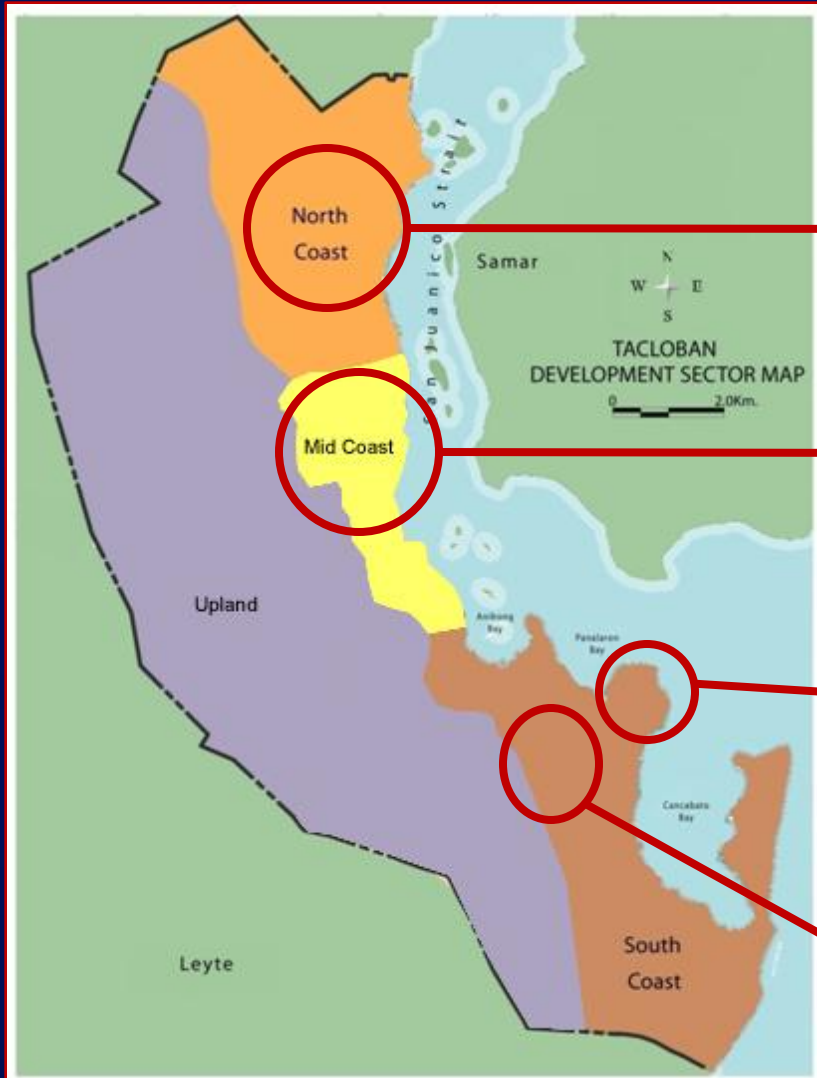
**North Coast:** satellite urban center

**Mid Coast:** urban expansion and trading area

**South Coast:** redevelopment with urban expansion in lower risk inland areas

**Upland:** conservation and protection area

# Proposed Development Strategies



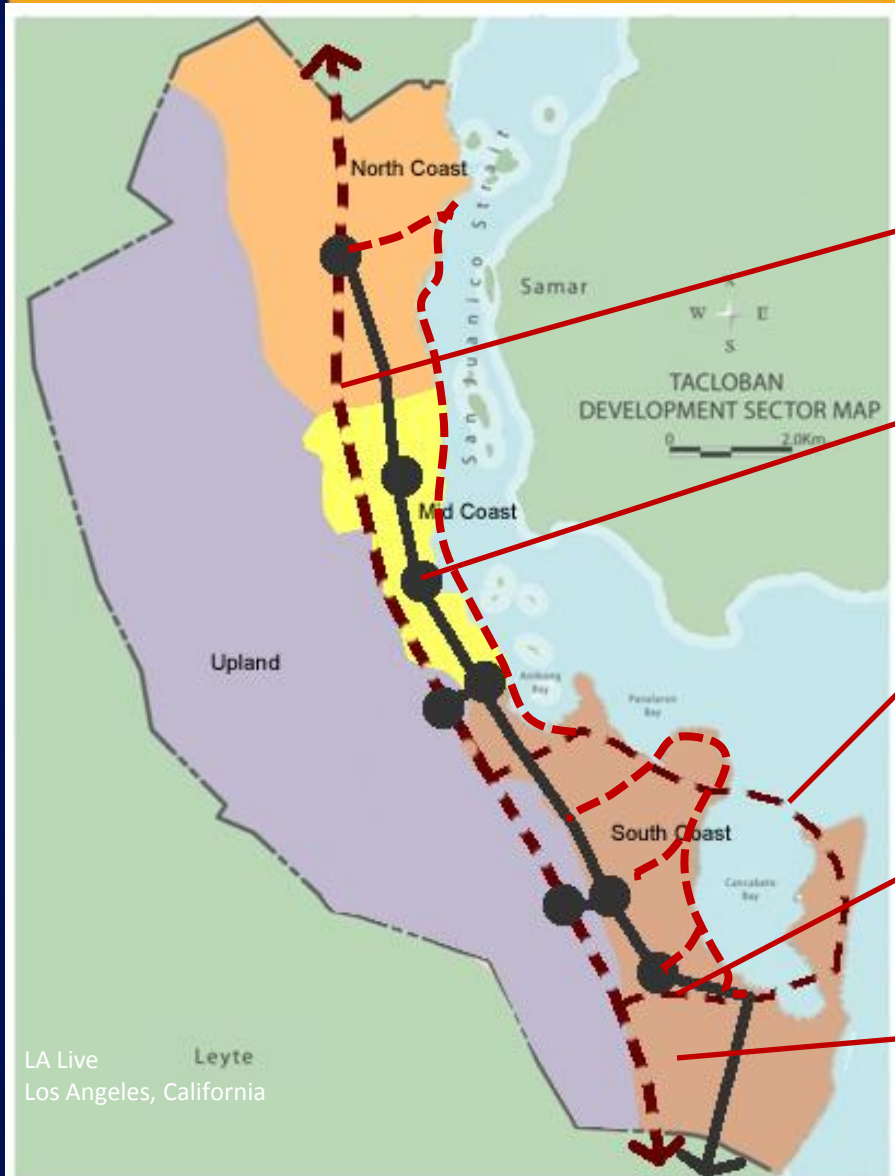
**New Employment and Residential Area (light manufacturing/ agri business)**

**Transit and Trading Area and Satellite Government Center (Institutional)**

**Tourist Oriented Commercial and Historic District (old CBD)**

**Central Business District Extension**

# Proposed Movement Network



**Parallel Diversion Road (North – South)**

**Public Transit System (Linking North, Mid and South Tacloban)**

**New Causeway from Airport to mainland (Transportation and Flood Control)**

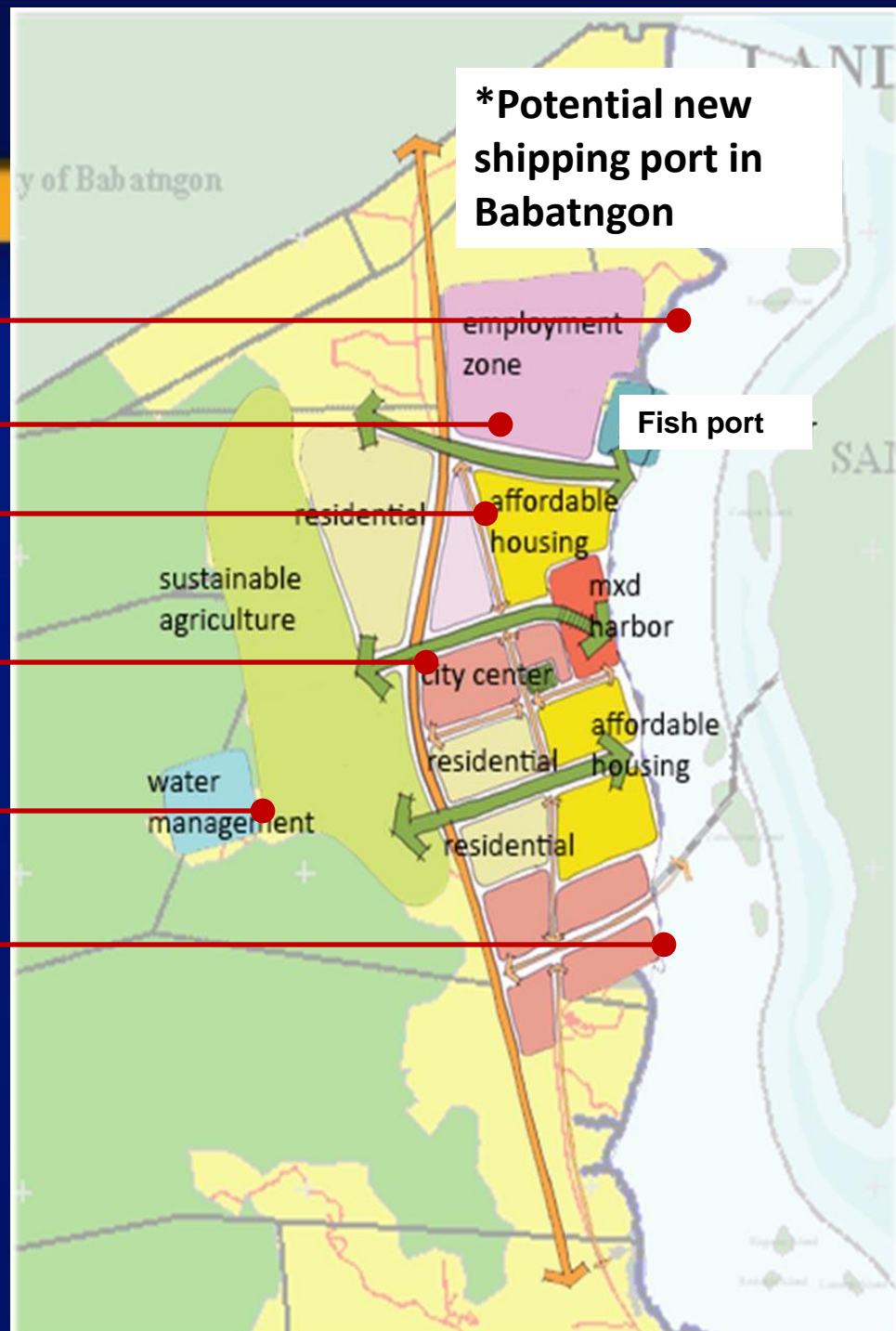
**New East-West Connectors (Airport to Highway)**

**Biking and Walking**

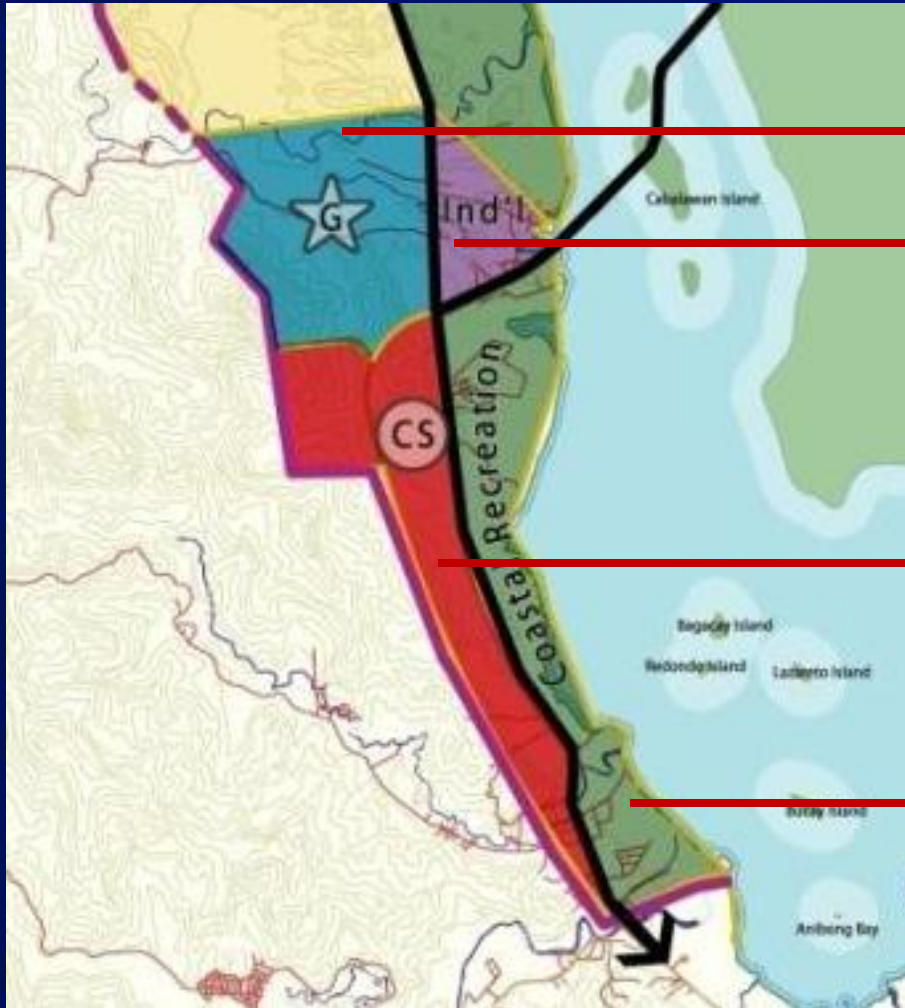


# North Coast

- Aquaculture
- Light industry or agri business
- New housing developments (mixed housing types)
- Township center with mixed use commercial
- New water supply system
- Coastal protection and conservation zone (mangroves)



# Mid Coast



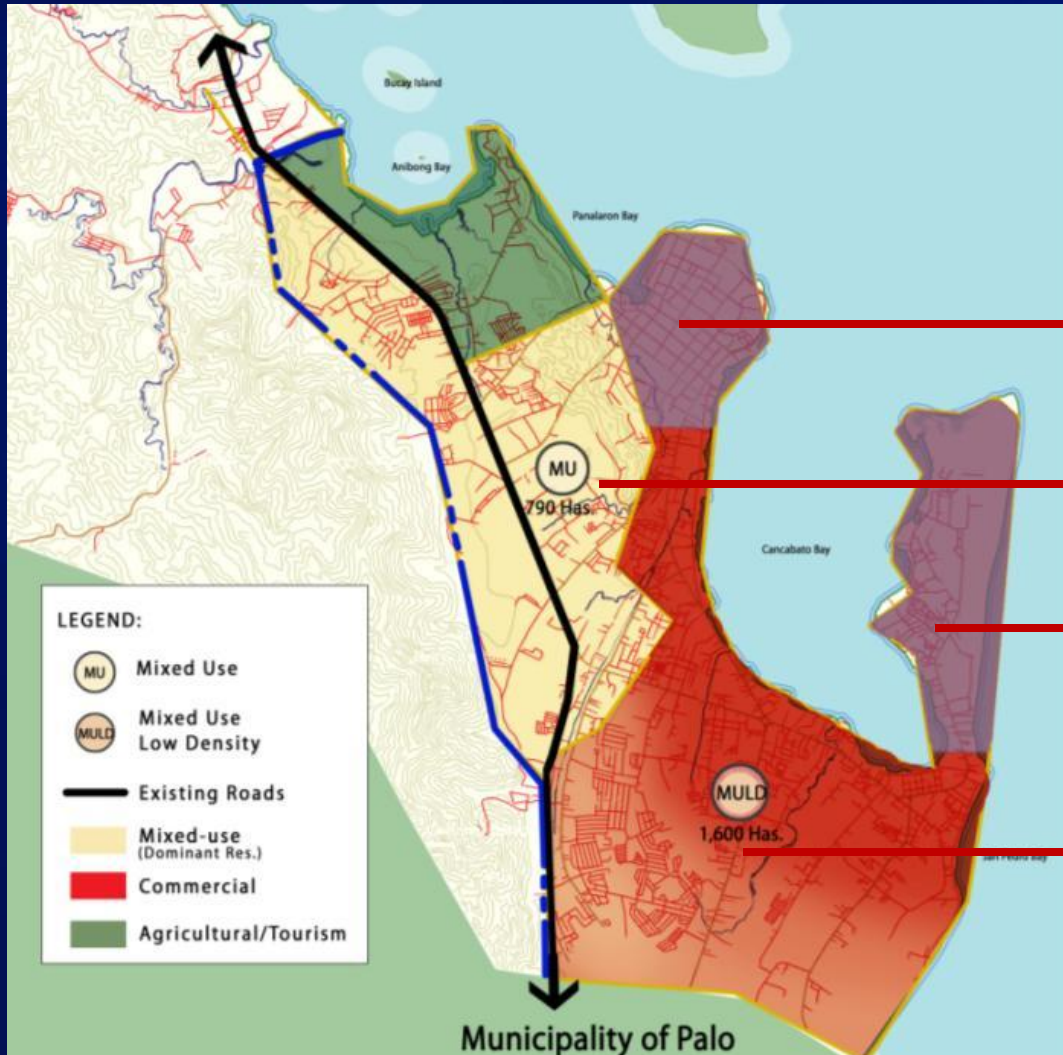
Institutional

Trading Area

Mixed use (dominant commercial)

Coastal Protection and Agriculture

# South Coast



Revitalized and protected downtown and harbor

CBD Extension (higher density)

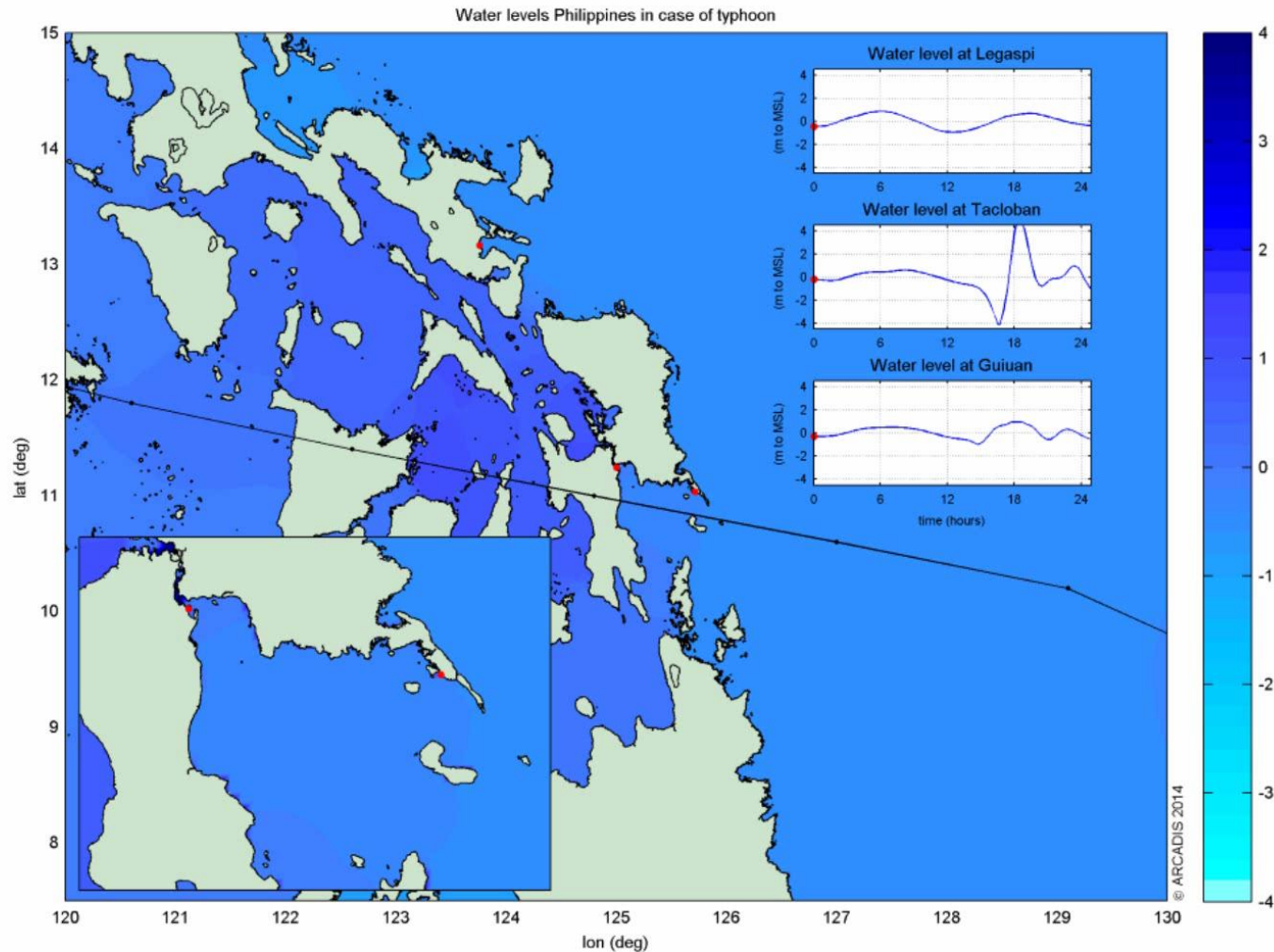
Revitalized and protected airport

Mixed-use (dominant commercial)



# Resilience Strategies

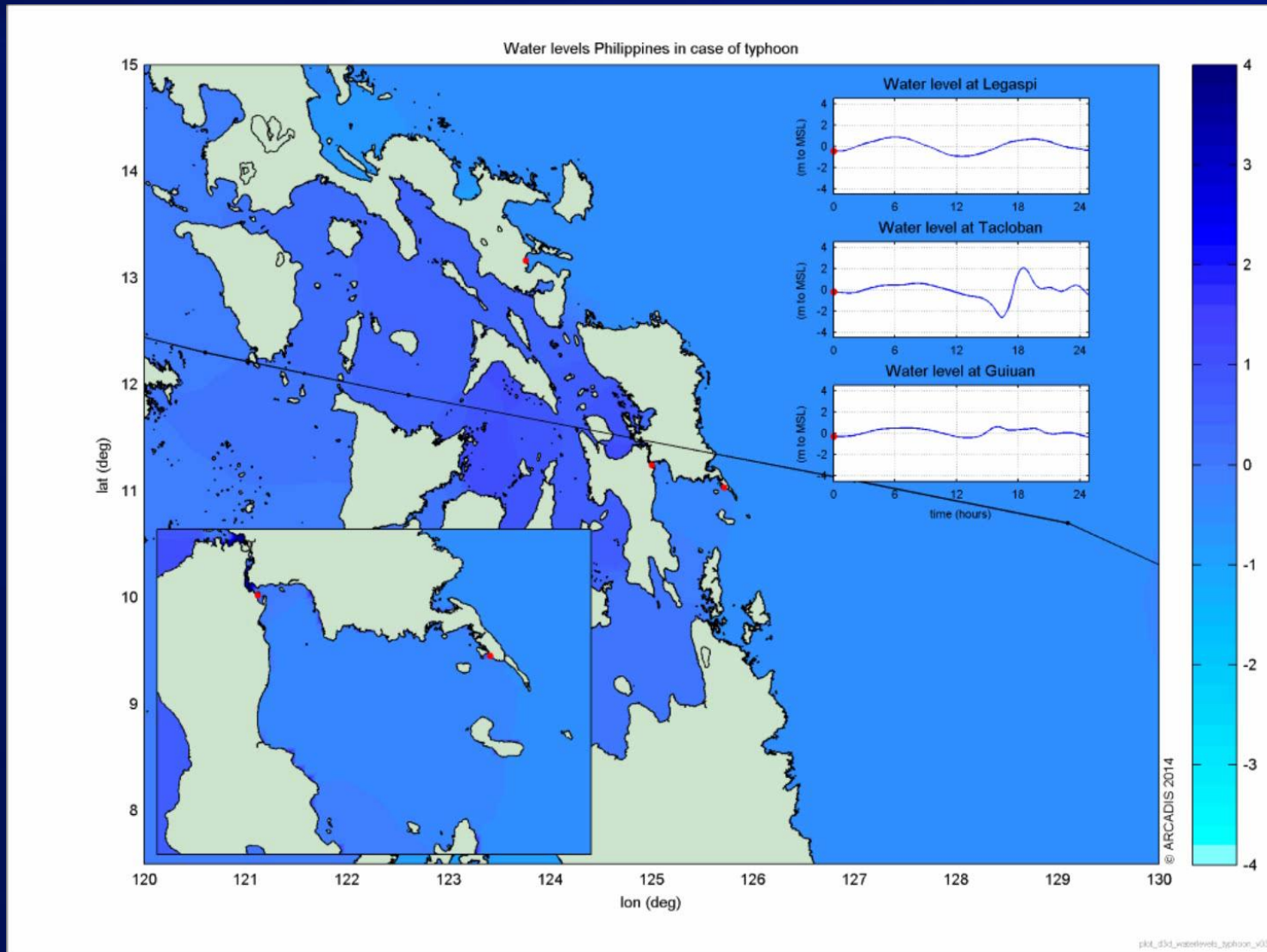
# Haiyan Storm surge simulation & scenario



# Storm surge simulation & scenario

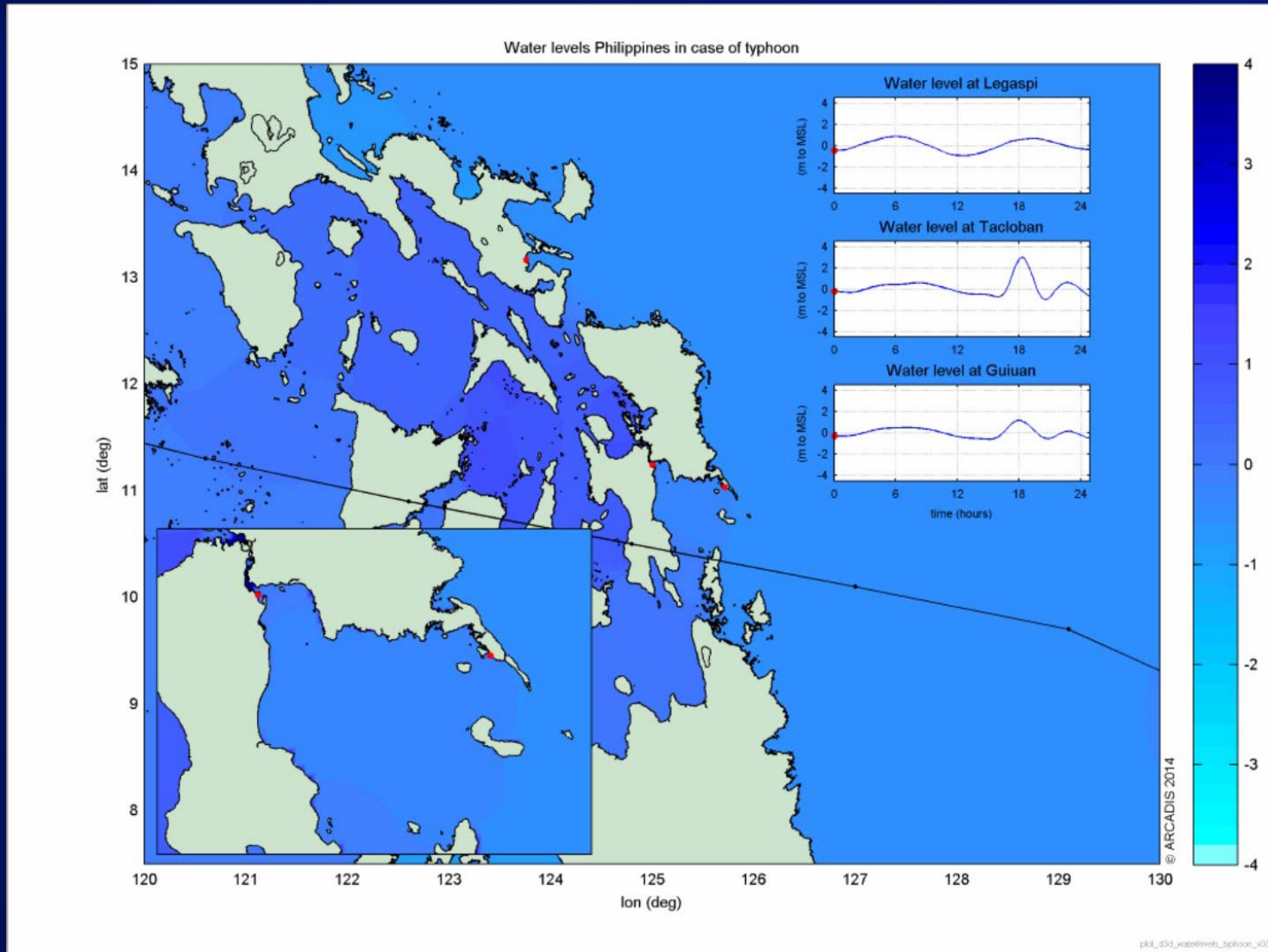


(+ 0.5° north; simulated water levels; uncalibrated model)



# Storm surge simulation & scenario

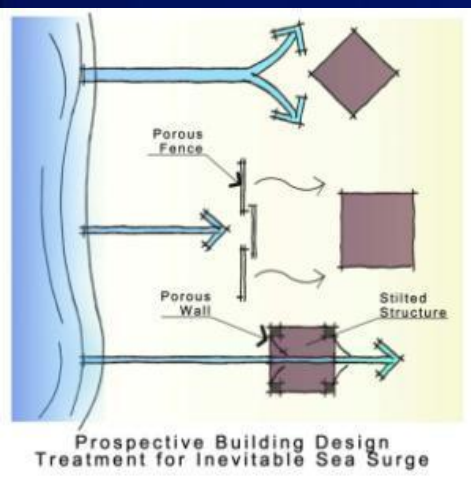
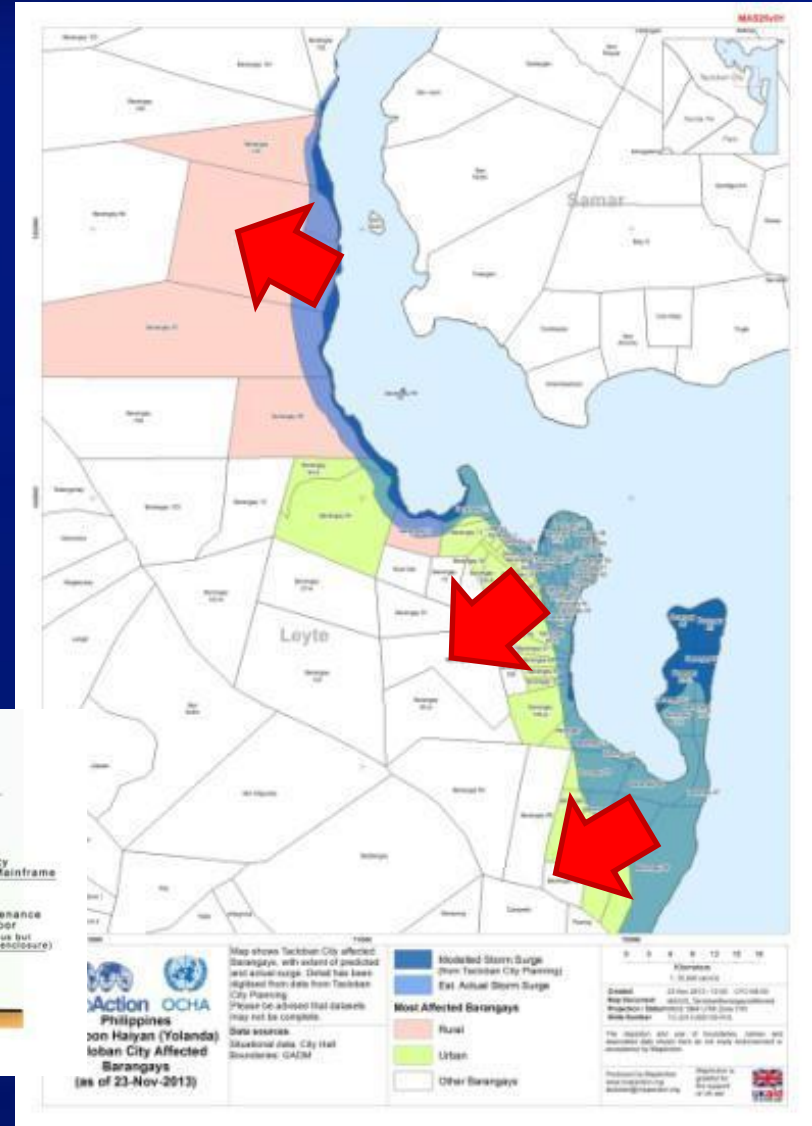
(- 0.5° north; simulated water levels; uncalibrated model)



# Resilience strategies

## 1. Development regulation for new building

- **Direct growth to the safer areas** of the city.
- **Disaster-resilient rebuilding policies** (architecture and engineering provisions for future construction)



**Action OCHA**  
**Philippines**  
**Donor Haiyan (Yolanda)**  
**Iloilo City Affected**  
**Barangays**  
**(as of 23-Nov-2013)**

This map shows Tacloban City affected Barangays, with extent of predicted and actual storm surge. Detail has been updated from data from Tacloban City Planning. Please be advised that details may not be complete.

**Data sources:**  
 International data: City Hall  
 Shantiering: GADM

**Legend:**  
 Isolated Storm Surge (from Tacloban City Planning)  
 Est. Actual Storm Surge  
 Most Affected Barangays  
 Rural  
 Urban  
 Other Barangays

**Scale:** 0 5 10 15 20 Meters

**Created:** 23-Nov-2013 12:00:00  
**Map Designer:** GADM, Shantiering/MapInfo  
**Production Environment:** ArcGIS 10.0  
**Scale Number:** 1:10,000,000.000

**The metadata and use of this data, either in whole or in part, is subject to the terms and conditions of the license.**

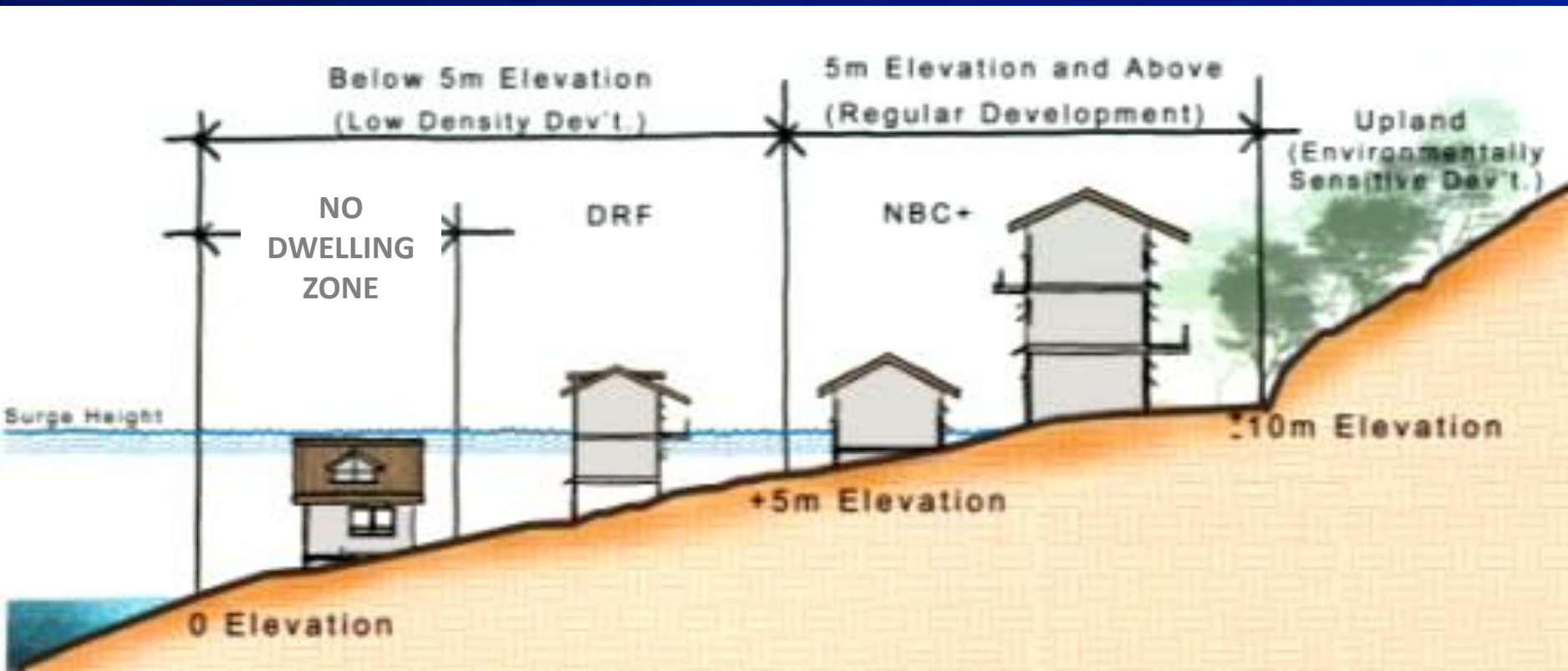
**Prepared by:** Shantiering  
**Map Information:** Shantiering  
**Author:** Shantiering  
**Organization:** OCHA



# Resilience strategies



## 1. Development regulation for new building



# Resilience strategies



## 1. Development regulation for new building

Land Uses	Unsafe areas in Immediate Coast / No Dwelling Zone (allowed uses within No Dwelling Zone )	Below Elev 5M	Elev 5M & above	Remarks
<b>Residential</b>	No Dwelling Zone especially for houses, hotels, dorms, hospitals and places of domicile for people.	Low density and low rise development	Regular developments and MRBs.	Existing buildings of areas shall be allowed to remain subject to compliance with the city's DRR retrofit requirement. New buildings shall be required to observe the city's new building code from the onset.
<b>Commercial</b>	Restricted to Tourism related commercial			
<b>Institutional</b>	Restricted to Tourism support offices & utilities			
<b>Industrial</b>	Restricted to Port oriented facilities)			
<b>Recreational</b>	Restricted to Coast project facility	Low density and low rise development for required structures.	Regular developments subject to restrictions on slope development.	Includes DENR protection lands
<b>Agriculture &amp; livestock raising</b>	Restricted to farm facility except residential	Low rise facility (for existing and new developments)	Regular development	Subject to the city's new building code DRR provision.
<b>Marine &amp; fisheries</b>	Restricted to dock facility & sea farms	Low rise development for affiliated structures.	Upland fish farming and low rise development for affiliated structures.	Includes fishpond, market structures and marina
<b>Physical Infrastructure</b>	Accessibility & coast protection projects (roads, bridges, causeways, breakwater, reclamation, etc.)	Roads and bridges including existing utilities and retaining structures.	Accessibility & utility projects (roads, bridges, dams, impounding ponds, retaining structures, revetments, etc.	City improvements mainly
<b>Social Infrastructure</b>	Existing public buildings subject to DRR consideration retrofit.	Existing public buildings subject to DRR consideration retrofit.	Public buildings such as: civic centers, schools, clinics, city offices, hospitals, fire and police stations, museums, arenas, etc.	Retention of existing city investments in the old area and deployment of new investments to the appointed new development area of the city.

# Resilience strategies



## 2. Revitalization & Rebuilding of Existing Assets

- Existing valuable assets of the city can remain and exist where they are but must be subject to DRR and CCA measures including policies for limited growth.



# Resilience strategies

## 3. Synergies with the private sector

- Today, Tacloban is rebuilding with available resources but will need **important investments from the private sector.**
- Directed to strategic locations by effective land use policies, **public and private investments together can ultimately support each other** in a synergistic way under viable disaster-free settings.



# Resilience strategies

## 4. Economic revitalization and Development

Potential drivers of post-disaster growth:

1. Construction
2. Trading
3. Agricultural Diversification
4. Industrial Development
5. Tourism
6. Business Process Outsourcing
7. Economic Infrastructure Development

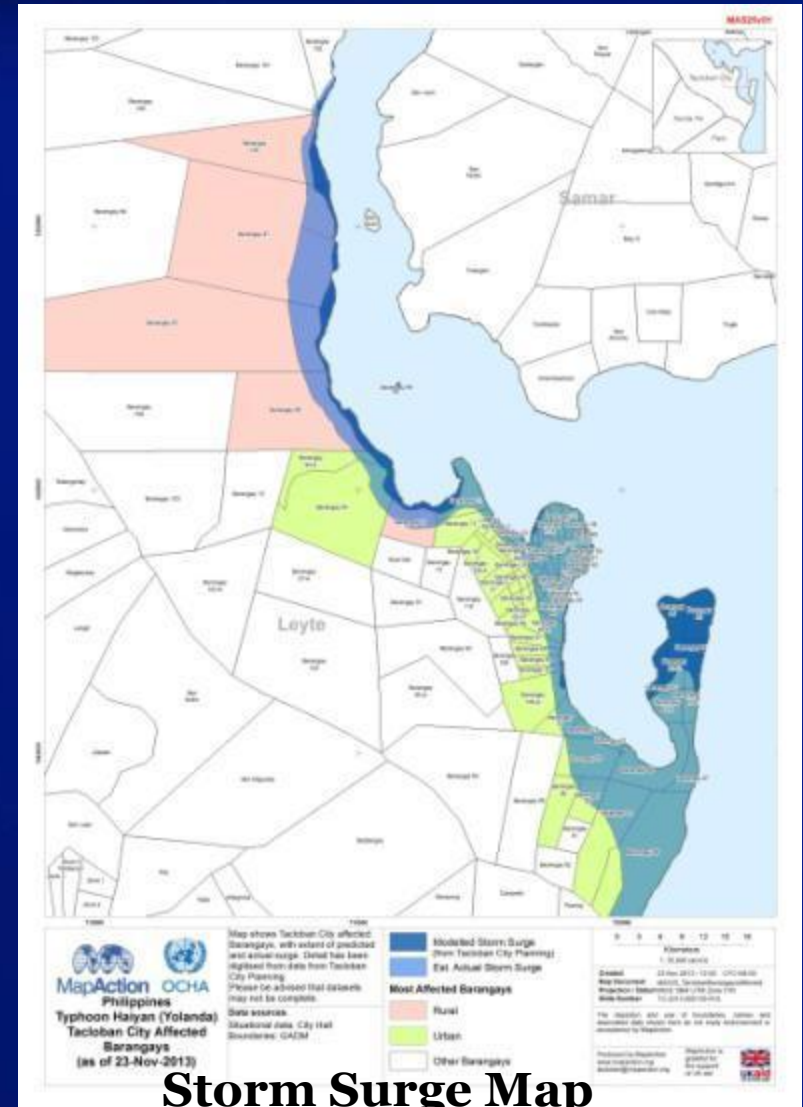


# Resilience strategies



## 5. Disaster Risk Reduction & Management Plan

- **Develop a culture of disaster preparedness** in its constituents and those wishing to locate and do business in the city.
- To achieve this, the City Government shall prepare its **Disaster Risk Reduction and Management Plan (TCDRRMP)** with the following:
  - Early warning and evacuation strategy
  - Contingency plans
  - Emergency response procedures



Storm Surge Map

# Resilience strategies

## 5. Coastal buffer zones

### Coastal Zones (along Bays & the San Juanico Strait)

- Coastal edges shall be replanted by Mangrove.
- Selected coastal areas shall be designated as water recreation zones or mariculture economic zones.
- Designed groynes (breakers) in the sea are proposed to mitigate damage to the ports by surges.
- The causeway linking the airport to seaport is under consideration.

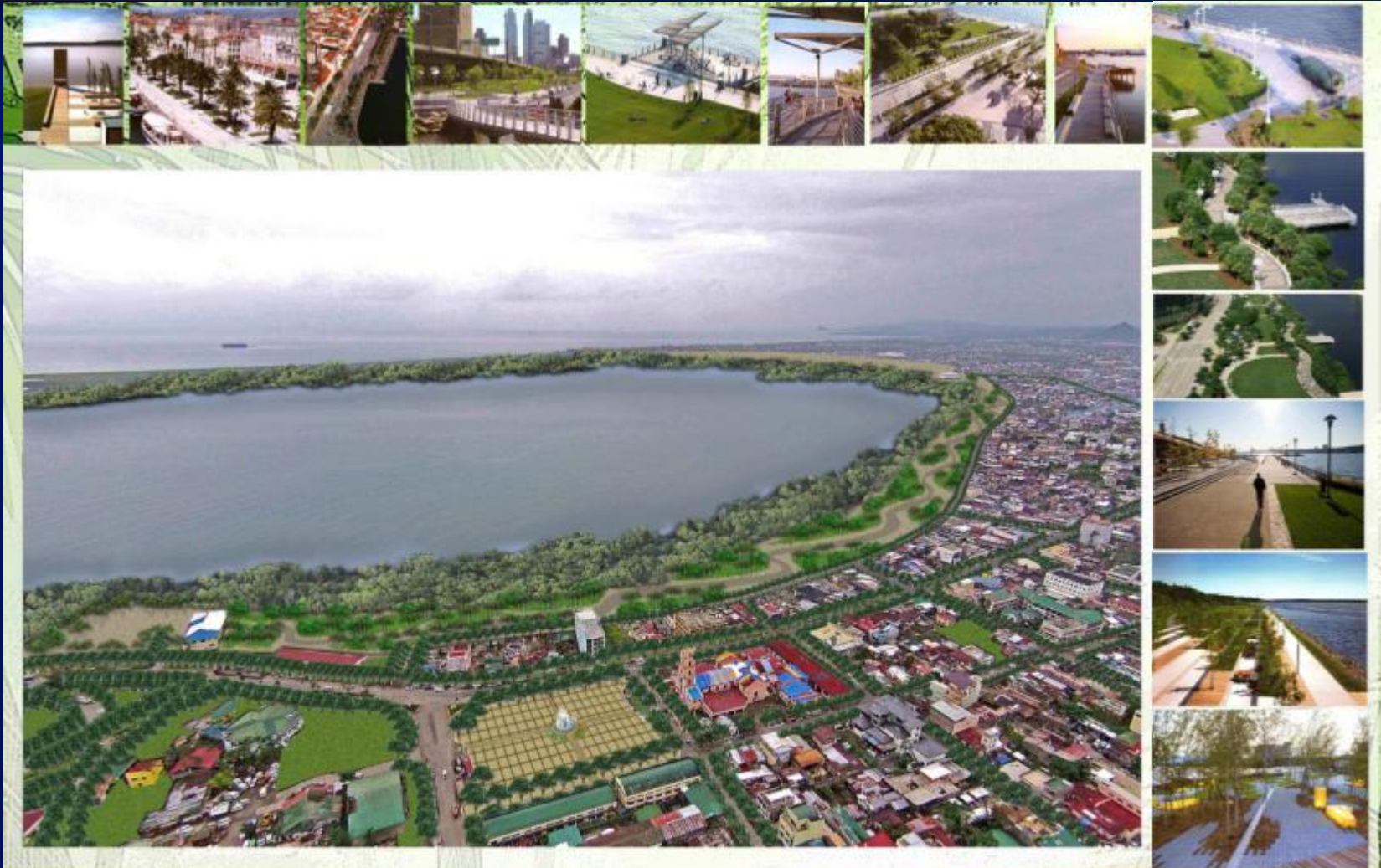


**Storm Surge Map**

# Resiliency strategies



## 6. Urban design



PROPOSED TACLOBAN ESPLANADE DEVELOPMENT

march 17, 2014

PGAA  
CREATIVE DESIGN



# Resiliency strategies

## 6. Coastal buffer zones





# Programs, Projects & Activities



# Shelter

We will provide housing options; ensure supply of adequate land; prepare supportive plans and policies; and ensure provision of basic services and economic opportunities.



# Proposed shelter strategies

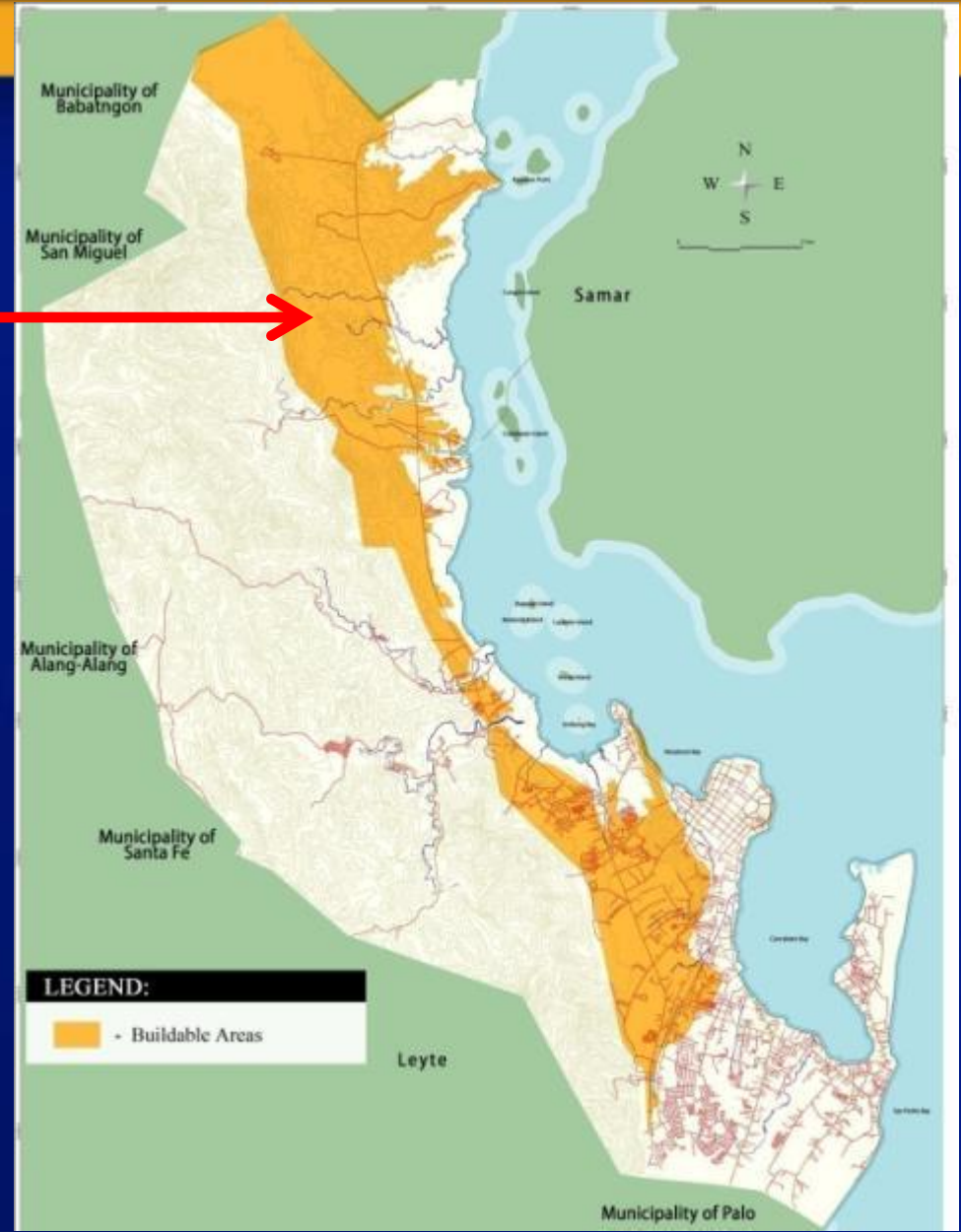


New building in  
“safe” areas

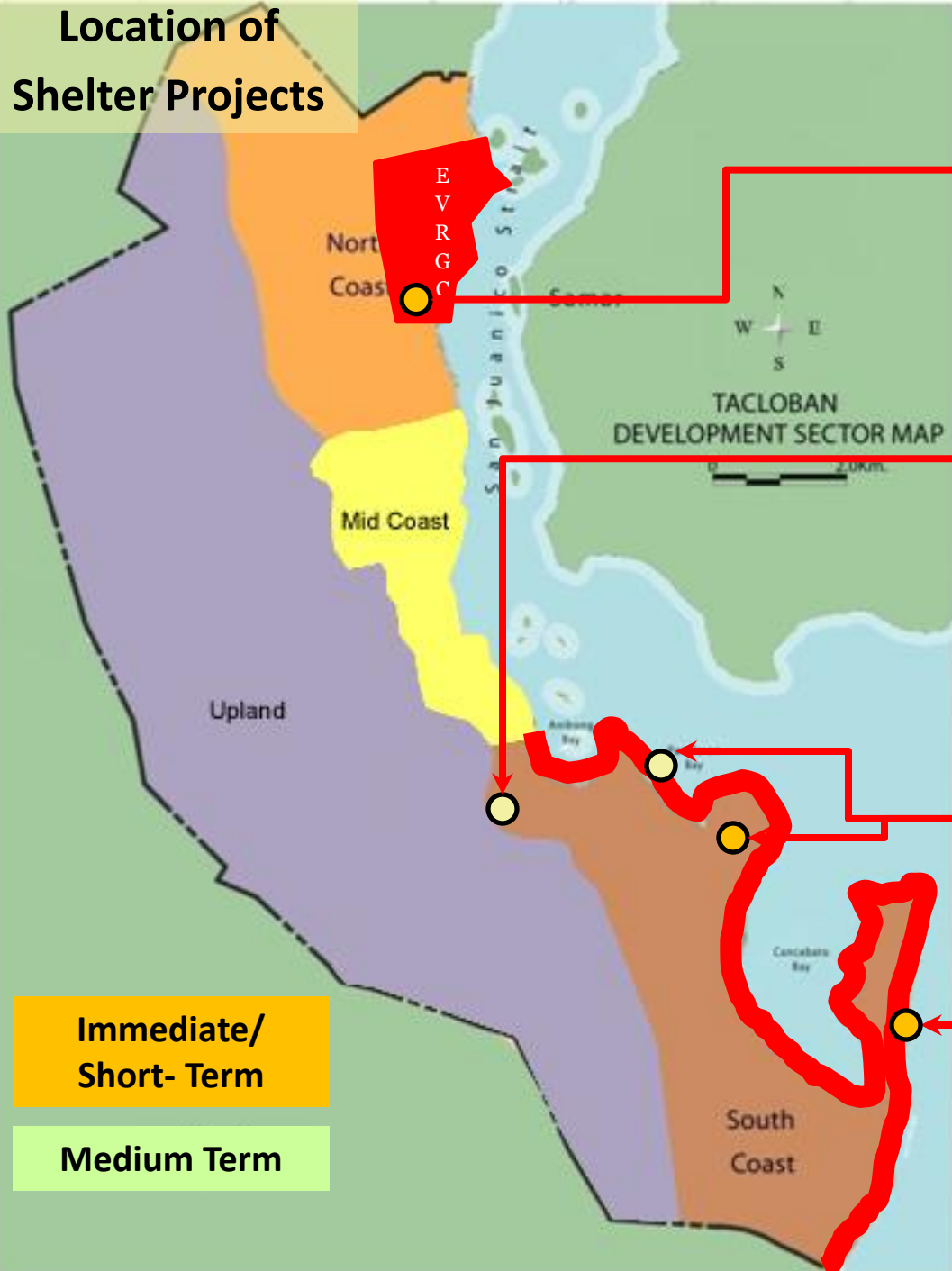
On-site repair and  
retrofitting in  
“unsafe” areas

Relocation for no  
dwelling zones

- House and lot (right to use)
- Community Mortgage Program (lot)



# Location of Shelter Projects



**1,226 temporary shelters** for IDPs still in tents and schools (Donor commitments: 1,000)

**39,798 on-site shelter repair/reconstruction assistance (5,547 with request for support)** to households in "Can Build Zones"

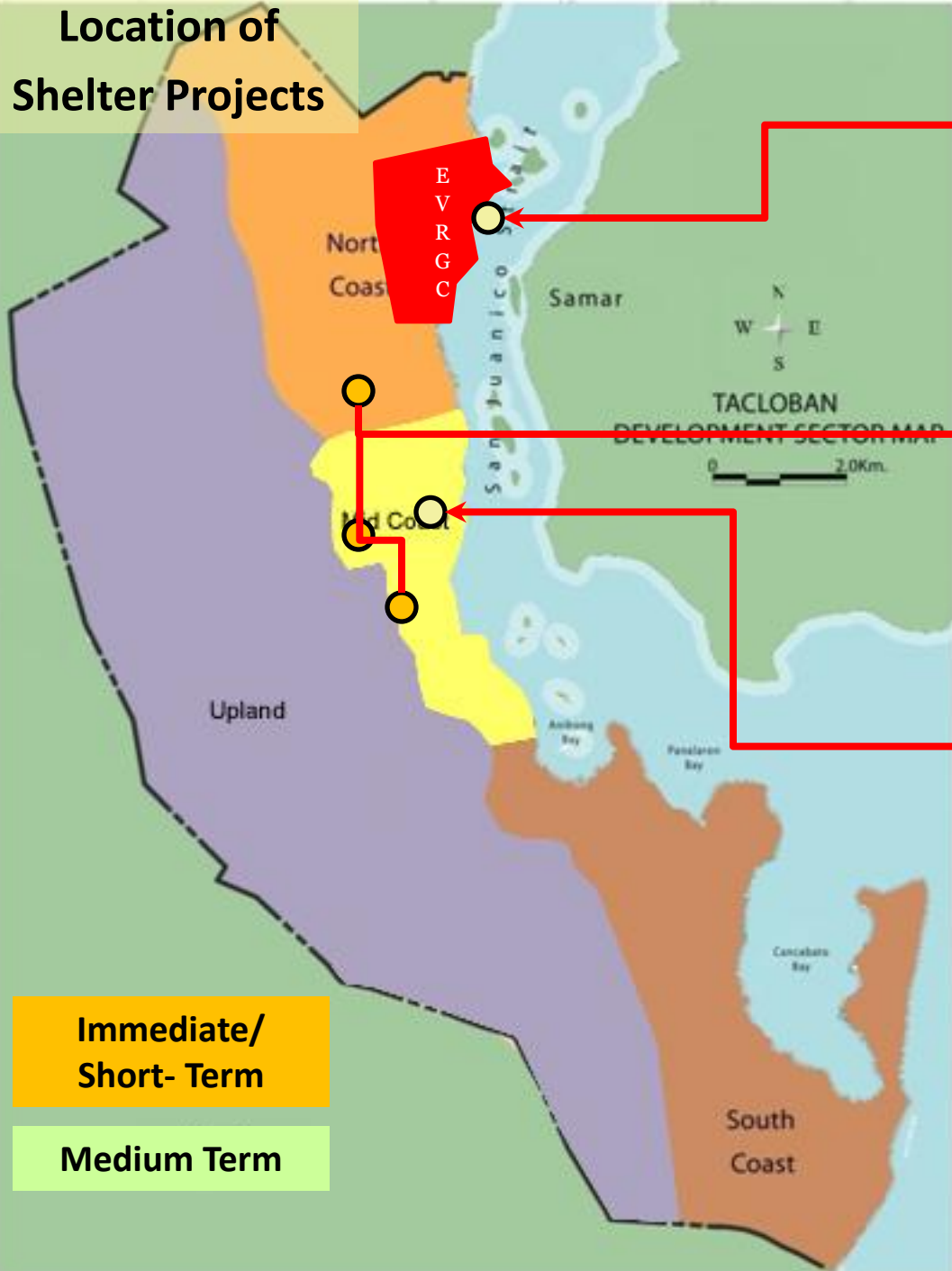
**3,627 temporary shelters** to the IDPs living in makeshift houses in Anibong and Sagkahan

**Profile of households** in urban coastal areas at risk

**Immediate/ Short- Term**

**Medium Term**

# Location of Shelter Projects



**Target of about 10,000 permanent housing (Total donor housing commitments and pledges: 6,833)**

**Target of about 3,000 for Community Mortgage Program in Diit, Bagacay, Cabalawan**

**Acquisition of additional land (30-50 hectares) for new housing**

**Immediate/ Short- Term**

**Medium Term**

# Shelter



**Other support activities to shelter projects**

**Activate Tacloban Shelter Cluster**

**Enhance City Shelter Plan**

**Construction Training Programs**

**Site development, community facilities** for new housing sites

**Basic services** in new housing sites

**Livelihood opportunities** in new housing sites

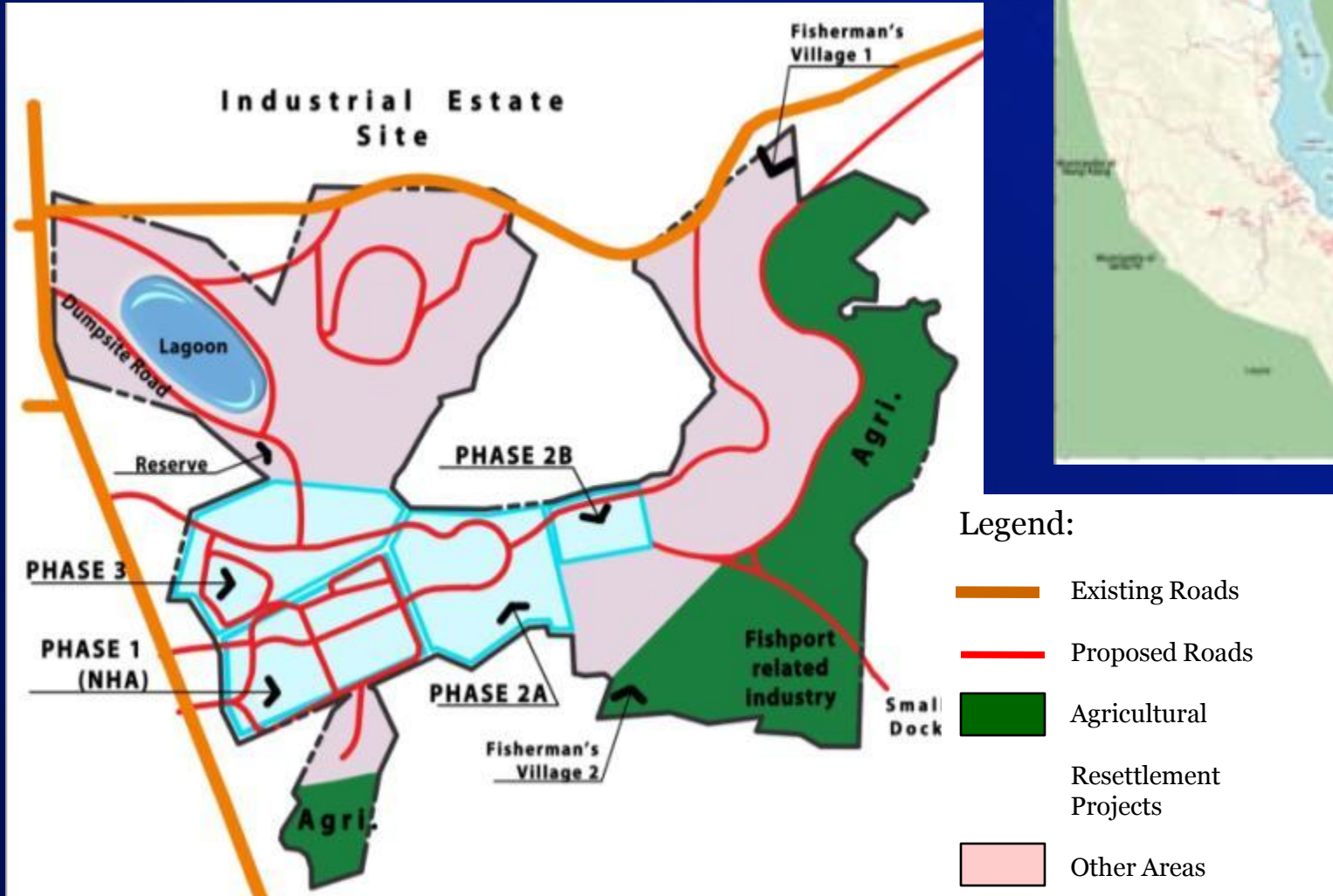
**Immediate/  
Short- Term**

**Medium Term**

# Initial Plans for Tacloban North New Settlement Site



Government Lots: 86 Ha.

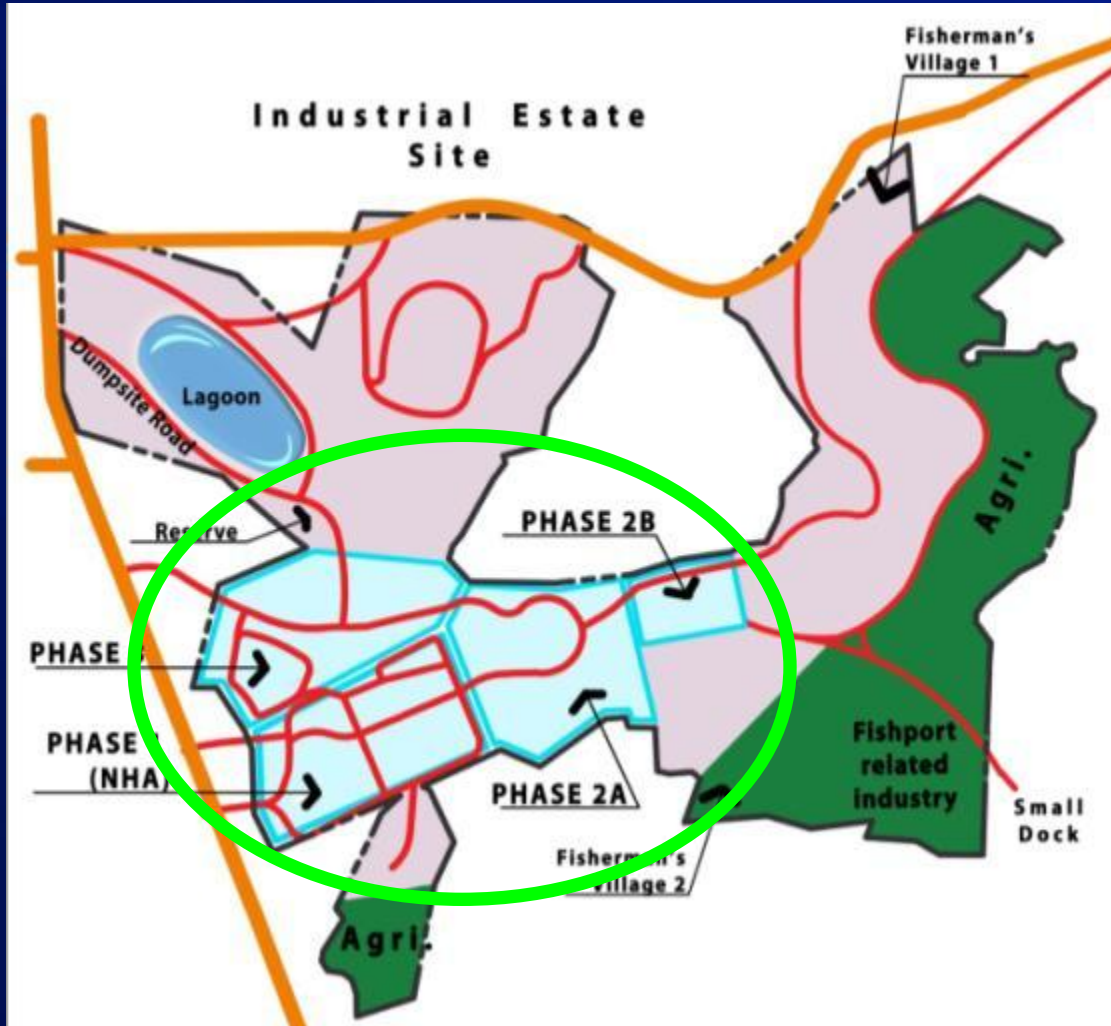




# Initial Plans for Tacloban North New Settlement Site



Capacity of Buildable Land in 86 Ha.



Resettle-ment Project	No. of housing Units	Remarks
Phase 1- NHA (10 has)	1,100	Duplex & Rowhouse
Phase 2a (8.7 has)	900	40sqm lots
<b>Total no. of Units</b>	<b>2,000</b>	

# Tacloban North New Settlement Site



Aerial Perspective of the 80 Ha.  
Resettlement Site Vicinity (with road alignment)

# Tacloban North New Settlement Site



Phase 1: Approx. 1000 units  
(from GMA Kapuso & Habitat for Humanity)



Site Aerial Perspective

# Tacloban North New Settlement Site



## Phase 1: Initial beneficiaries from San Jose



View of Hill Park (at the other entrance)

# Tacloban North New Settlement Site



Phase 1 status: Under land development and initial house building; to be finished in 2014



# Projected Impacts and Results of Housing Construction



	<b>TOTALLY DESTROYED</b>		<b>PARTIALLY DAMAGED</b>	
<b>NUMBER OF UNITS</b>	30,513		23,718	
	Cost (200,000 per Unit)		Cost (100,000 per Unit)	
	Php6,102,600,000		Php2,371,800,000	
<b>Labour</b>	35%	40%	35%	40%
<b>Labour cost</b>	Php2,135,910,000	Php2,441,040,000	Php830,130,000	Php948,720,000
<b>Jobs created (working days)</b>	8,215,038	9,388,615	3,192,808	3,648,923
<b>Jobs created (person/weeks)</b>	1,643,008	1,877,723	638,562	729,785
<b>Jobs created (person/years)</b>	31,596	36,110	12,280	14,034
<b>Local jobs created (person/years @ 70% minimum)</b>	22,117	25,277	8,596	9,824

Daily rate: Php260,00 (Tacloban)

Hourly rate: Php53,25 (Manila)

Daily rate: Ph426,00 (Manila)



# Social Services

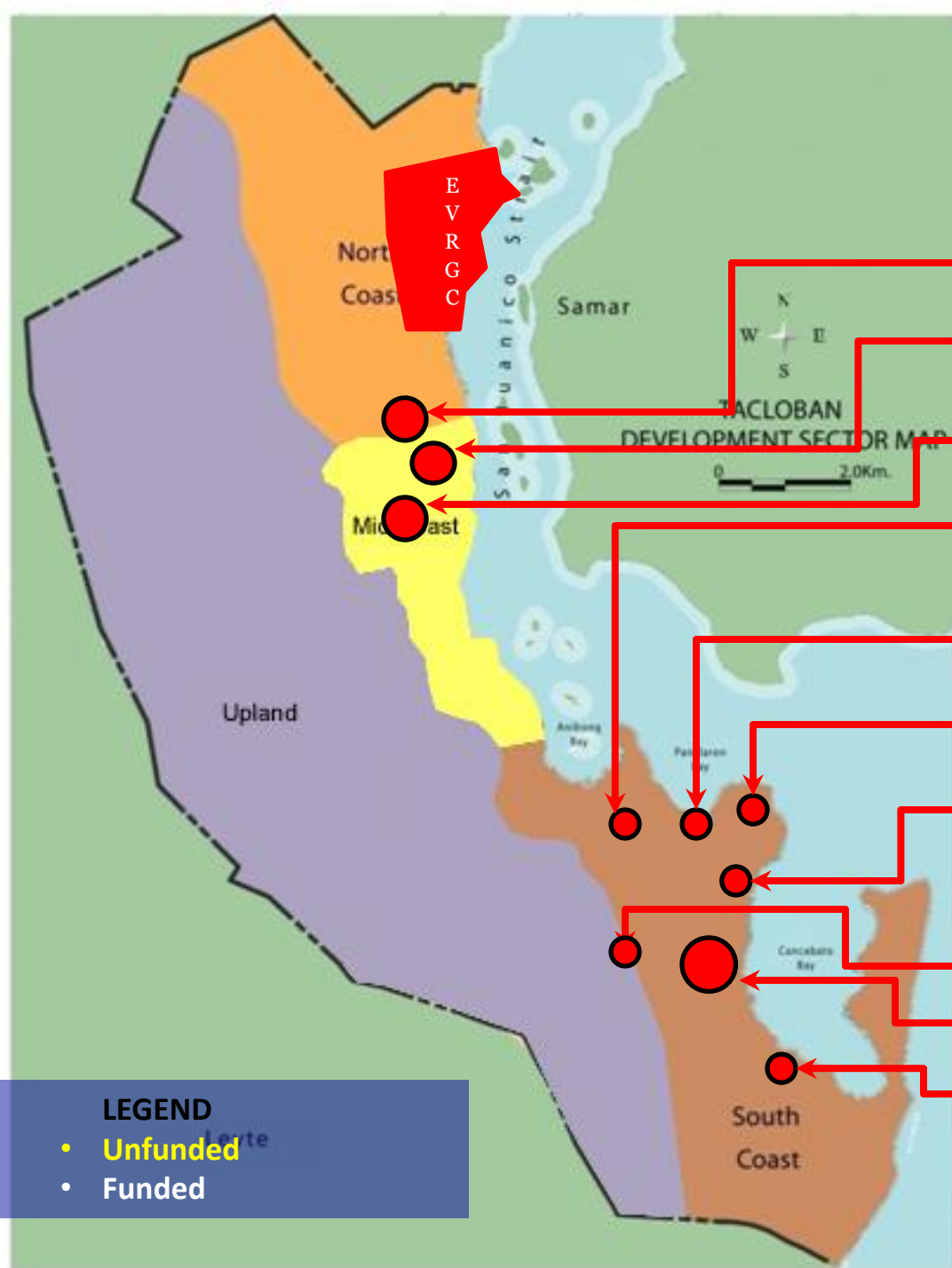
We will improve our quality of life through restoration of essential community services for health, education, social welfare, and peace and order.



# Health Facility Enhancement & Development

Construction, repair, rehabilitation and provision of equipment package.

- **Upgrading of Suhi Health Center to Infirmary (P1.2M)**
- **Construction of new EVRMC (c/o National Gov't)**
- **Diit District Health Center (c/o Heinrichsdorff/ USAID)**
- **Construction of New District Health and Birthing Center at Abucay (c/o Rotary Club of Makati)**
- **MASA Health Service Unit (c/o Kimse Yok Mu & DOH Quick Fix)**
- **Tacloban City Health (c/o WHO/ DOH)**
- **Sagkahan District Health and Birthing Facility (c/o ICAD Foundation/ Kimse Yok Mu)**
- **V&G District Health Center (c/o DOH Quick Fix)**
- **Tacloban City Hospital (c/o SM Foundation & Americares)**
- **San Jose District Health and Birthing Facility (c/o DOH & Association of Filipinos @ Texas USA)**



## LEGEND

- **Unfunded**
- **Funded**



# Social Services Projects



## Health

### 1. Service Delivery

- Basic health care services and health promotion
- Nutrition
- Reproductive health
- Mental health and psychosocial support
- Technical assistance on gender-based violence

### 2. Health Policy Planning, Research and Development

- Establishment of Health Information Management System
- Establishment of Health Emergency Management System

### 3. Technical assistance on Health Care Financing

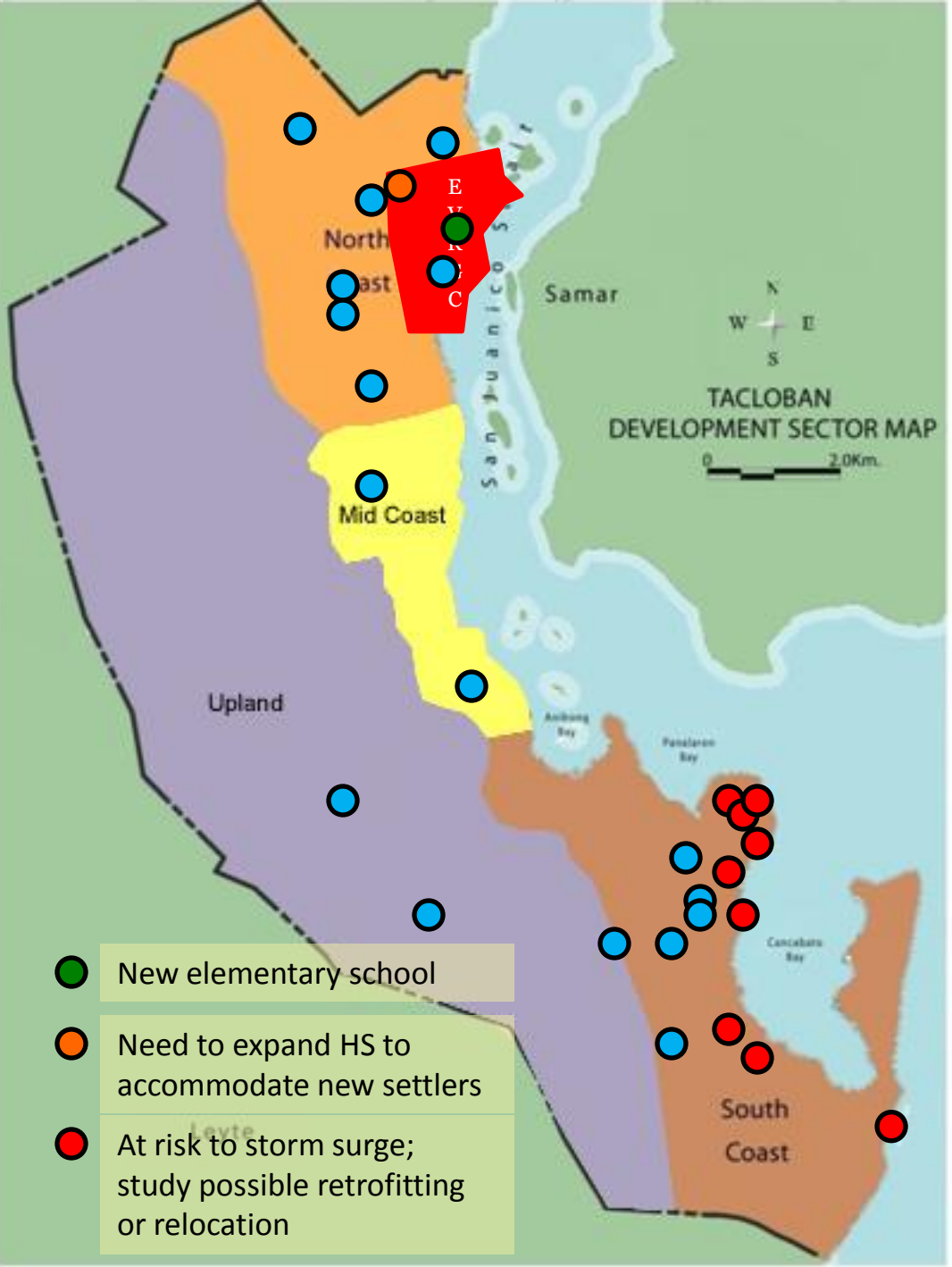
### 4. Technical assistance on Health Regulation

# Social Services Projects



## Education

1. Temporary learning spaces
2. School feeding
3. Repair and assessment of schools
4. Water and sanitation facilities
5. Psychosocial support for teachers and students
6. Furniture and equipment
7. Teaching materials and supplies



## Repair of Damaged Schools

- Sta. Elena Elementary School (P1.8M)
- Tagpuro Elementary School (P9.45M)
- Lucio Vivero Memorial School (P3.75M)
- Lucio Vivero Old Kawayan Elem. School (P7M)
- Sto. Nino Elementary School (P3.1M)
- Bulante Elementary School (P6.1M)
- Cabalawan Elementary School (P3.9M)
- Bagacay Elementary School (P2.85M)
- Herman Meiner Elementary School (P0.450M)
- Palanog Resettlement Elementary School (P2.7M)
- Panalaron Central School (P3M)
- Cirilo Roy Montejo National High School (P3M)
- Sto. Nino SPED Center (P1.2M)
- Kapangian Central School (P0.75M)
- Rizal Central School (P0.75)
- Leyte National High School (P5.7M)
- San Fernando Elementary School (P3.45M)
- Marasbaras National High School (P4M)
- Marasbaras Community School (P4.8M)
- Caibaan Elementary School (P3M)
- V&G De La Cruz Elementary School (P1.5M)
- Sagkahan National High School (P2.4M)
- San Jose Central School (P3.6M)
- San Jose National High School (P1.35)
- Salvacion Elementary School (P10.2M)
- Boys Town Daycare (TBD)
- Women & Children's Day Care Center

\*Repair costs based on DPWH as of Nov. 29, 2013

# Assistance to Schools



School	No. of Classrooms	Donor
RTR Elementary School	9	Red Cross Prefab Clasrooms
Caibaan Elementary School	9	Red Cross Prefab Clasrooms
San Jose Elementary School	20	Red Cross Prefab Clasrooms
Sagkahan Elementary School	10	Red Cross Prefab Clasrooms
Dr. AP Bañez Elementary School	2	Red Cross Prefab Clasrooms
San Fernando Central School	7	Red Cross Prefab Clasrooms
Leyte National High School	9	Red Cross Prefab Clasrooms
Tacloban National Agricultural School	16	Red Cross Prefab Clasrooms
San Jose Central School	26	Philam Foundation
Marasbaras Central School	13	Philam Foundation
Manlurip Elementary School	8	PLDT Through My House
Dr. AP Banez Elementary School	15	PLDT Through My House

# Social Services Projects



## Protective Services

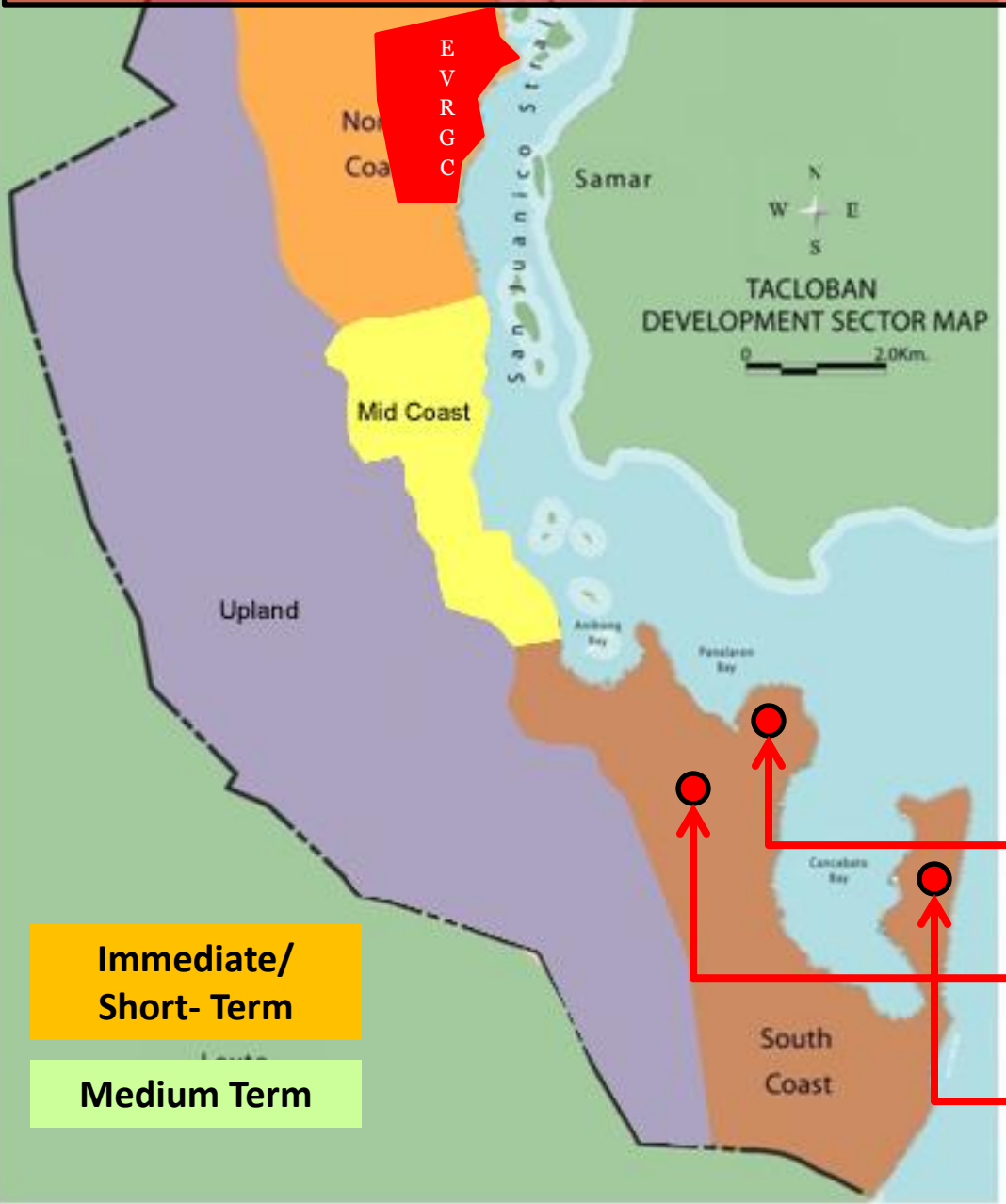
1. Formulation of Contingency Plan
2. Moral recovery program
3. Stress debriefing
4. Technical assistance on conduct of peace and order
5. Technical assistance on Disaster Preparedness
6. Rehabilitation of police station and city jail
7. Mobility and communication equipment
8. Firefighting equipment



# Economic Revitalization

We revive our economic vitality and increase productivity; diversify our economy; increase food security; and maintain security of businesses.

# Economic Projects (Immediate)



**Micro Marshall Plan (Soft Loans)  
for local businesses**

**Establish City Business  
Information, Investments  
Promotion and Coordination Help  
Desk**

**Assistance to farmers and  
fisherfolk (equipment, seedlings,  
subsidies)**

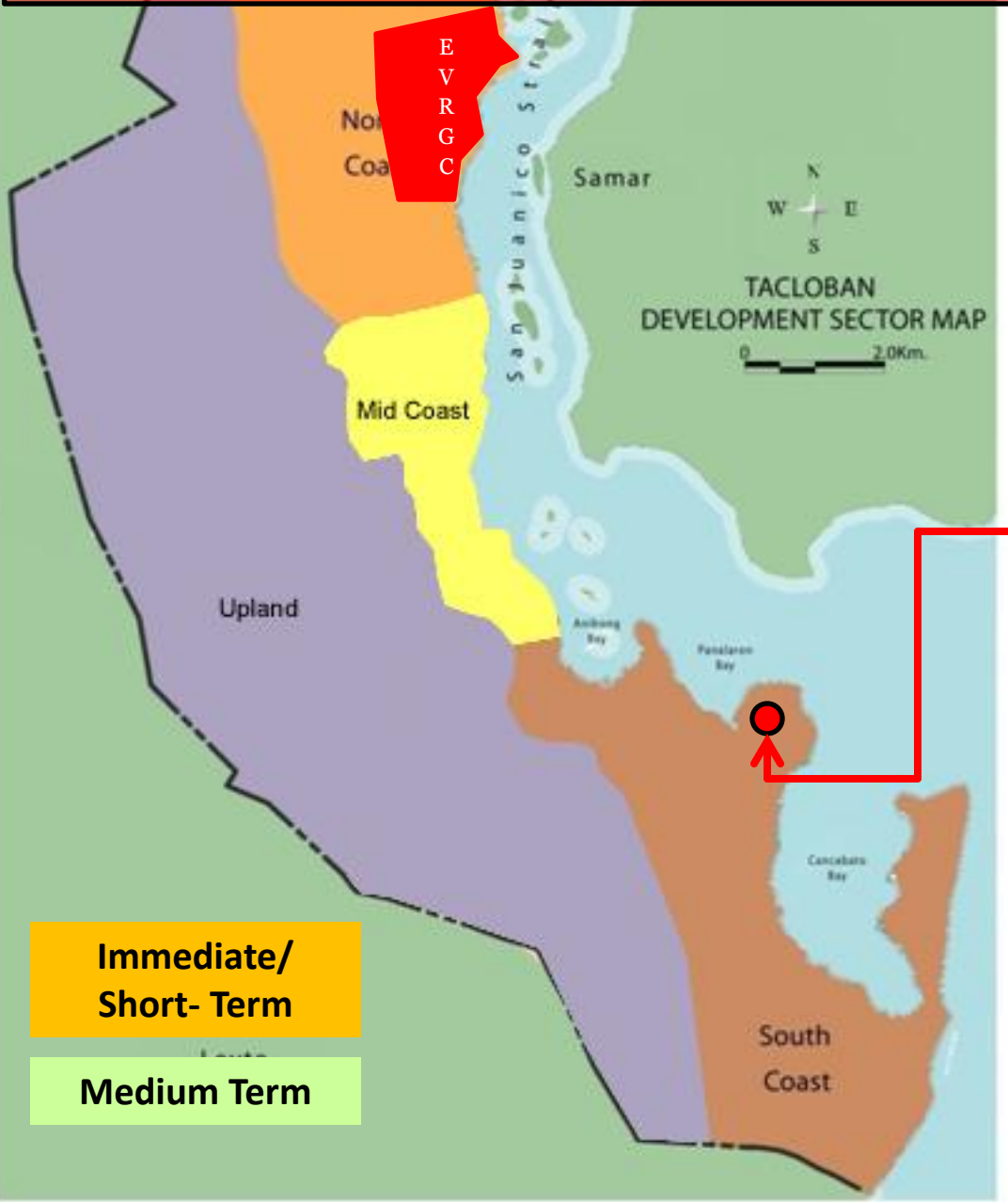
**Maintain sufficient PNP  
augmentation**

**Restoration of public market,  
slaughterhouse and fishport**

**Repair of bus terminal in Abucay**

**Restore airport operation to 24  
hours**

# Economic Projects (Immediate)



**Immediate/  
Short- Term**

**Medium Term**

**Restore/ augment sufficient number of public utility jeeps for all intra city routes**

**Support rehabilitation of private sector rice mills, warehouses & cold storage facilities**

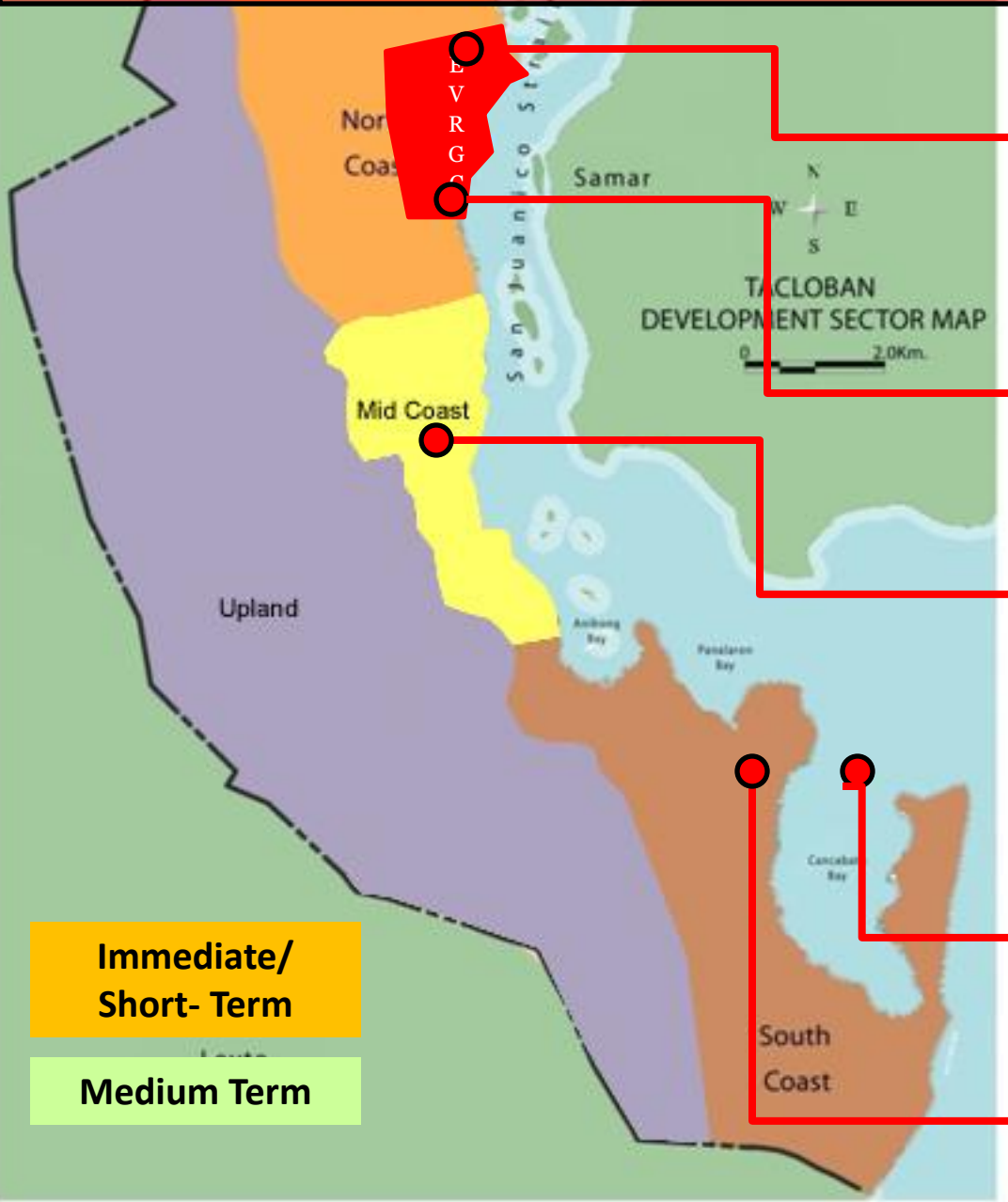
**Support repair and construction of boarding houses and dormitories**

**Skills training programs for construction related industries, high-value agriculture and aquaculture**

**Livelihood programs for vulnerable groups (vendors, transport, women, senior citizens)**



# Economic Projects (Medium to Long Term)



Development of Eastern Visayas Regional Growth Area (EVRGC) as light agri-industrial economic zone (for Review/ Study)

Establishment of corporate agriculture and aquaculture farms (private or government) (for Study)

Establishment of Food Terminal (Bagsakan) (for Feasibility Study)

Intra city bus system

Launch San Juanico Strait/ Cancabto Bay/ San Pedro Bay Cruise and Tourist Terminal Facility

Document city heritage and formulate city tourism policy

Immediate/  
Short- Term

Medium Term

# Integrated Food Terminal near San Juanico Bridge (for further study)

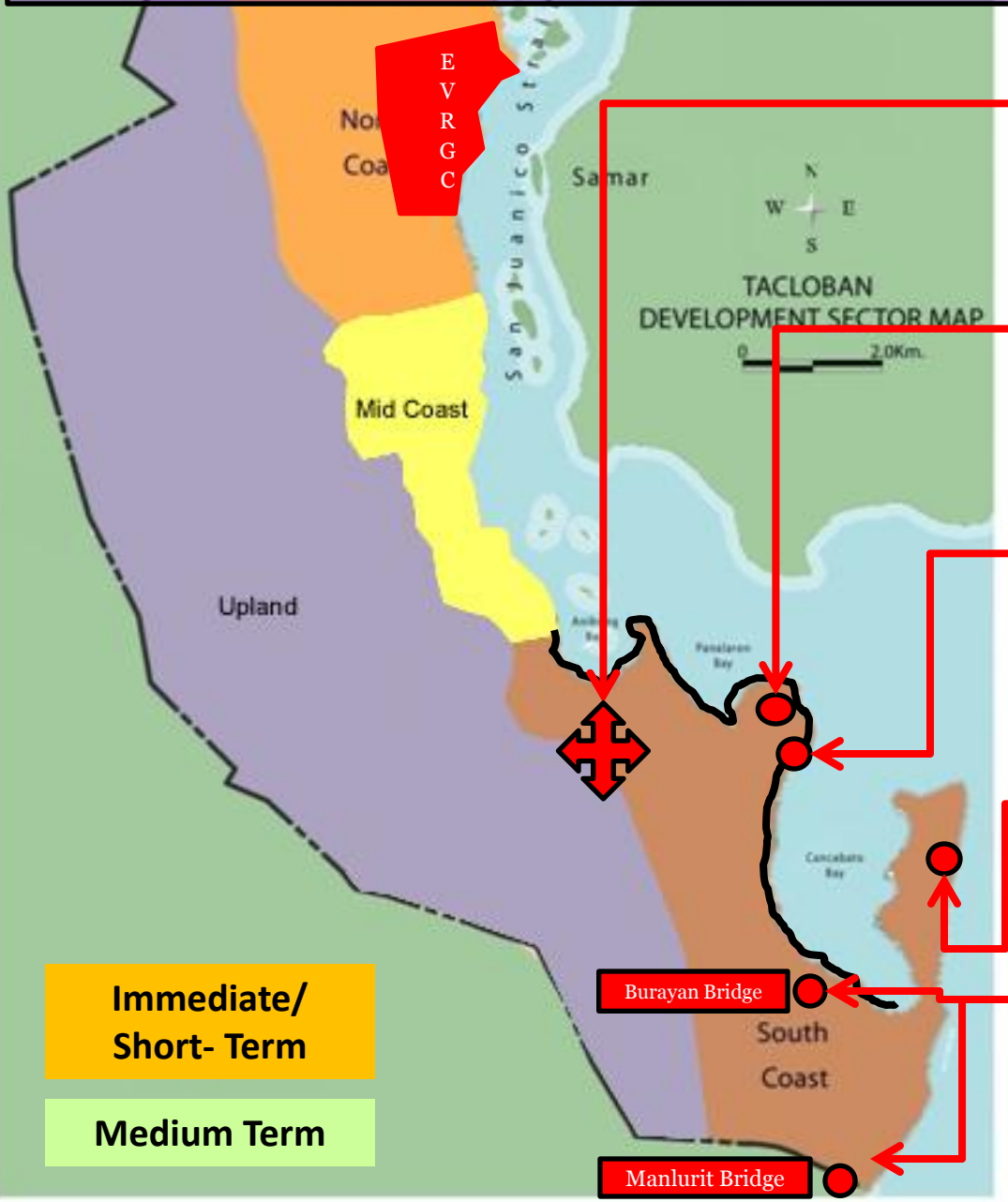




# Physical Infrastructure

We fast track repair and rehabilitation of physical infrastructure considering risk resilience and environmental and social responsiveness.

# Infrastructure Projects (restoration of lifelines)



**Repair of Damaged Roads within the city**

**Repair of City Hall Building and other city government property (P697M)**

**Clearing and declogging of drainage system**

**Construction of Tacloban International Airport (c/o National Government)**

**Repair of Bridges**

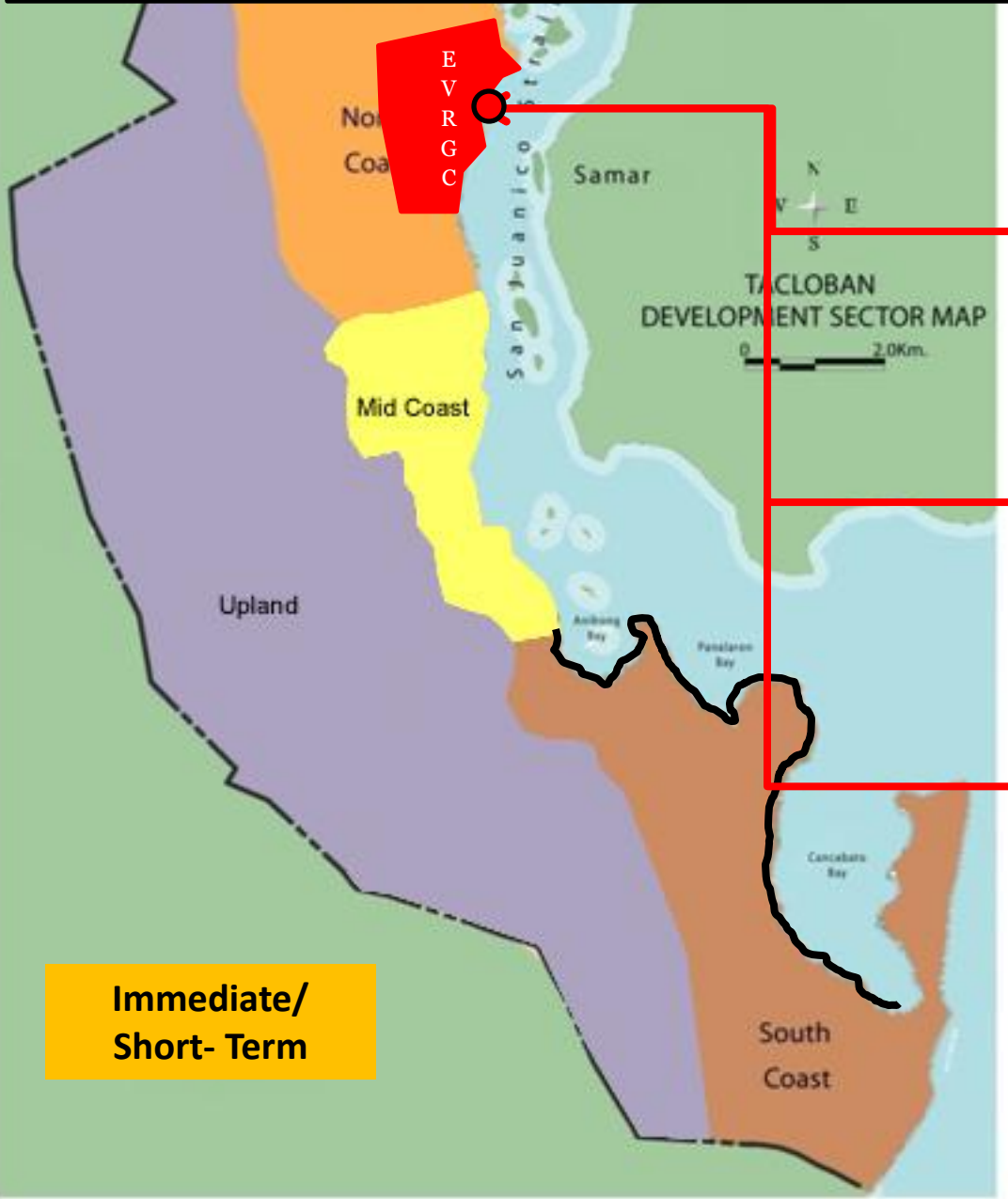
**Support resilient power & communication systems**

**Immediate/ Short- Term**

**Medium Term**



# Infrastructure Projects (for new housing sites)



**Pilot well(s) for Tacloban Housing Site**





**Study of water system for Tacloban North**

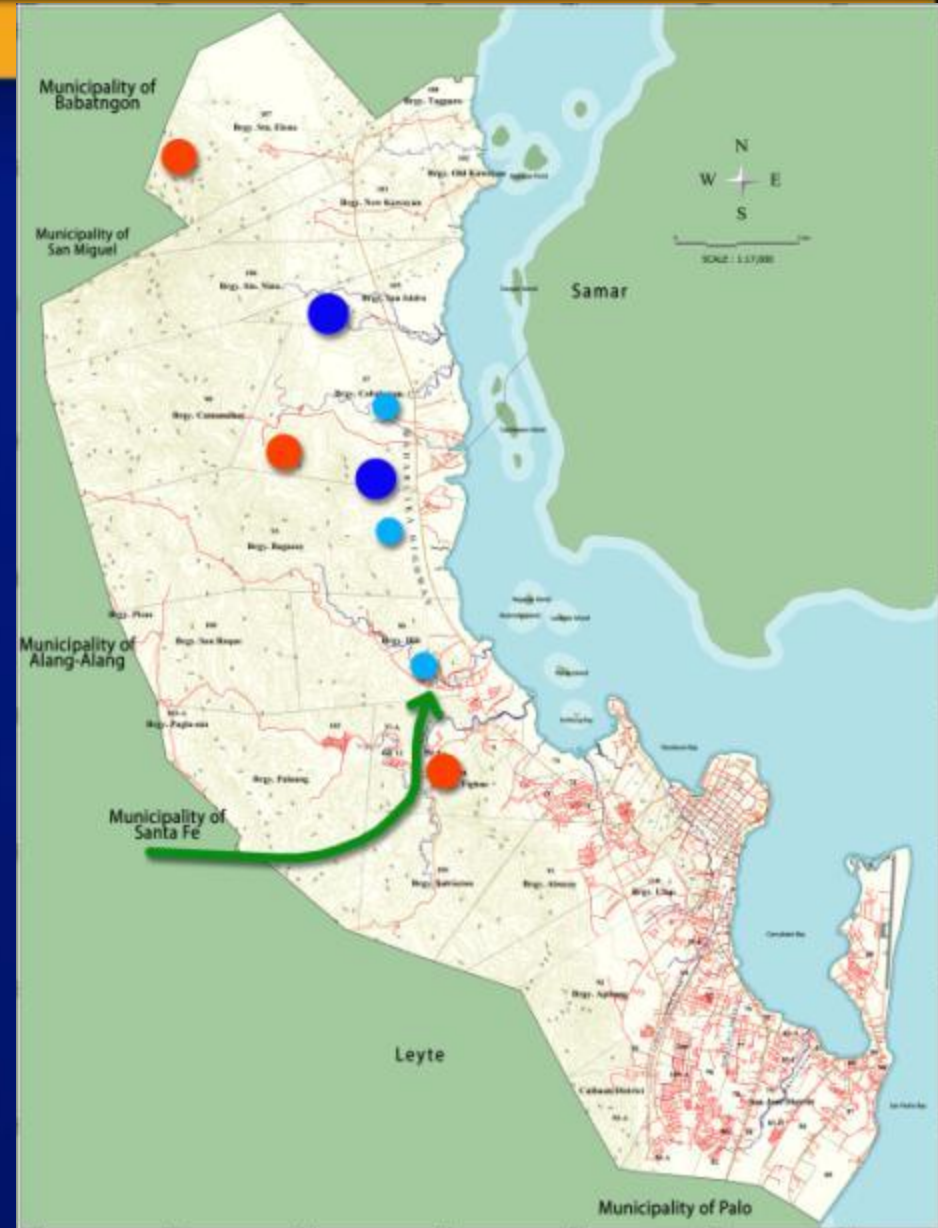
**Site development, utilities, community facilities for Tacloban North**

**Immediate/ Short- Term**

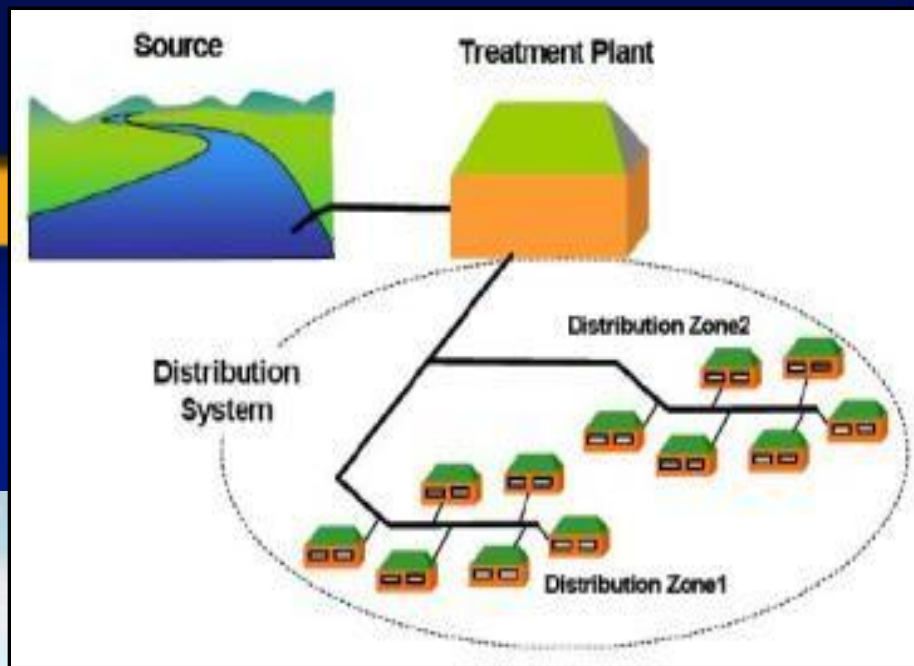
# Potential Water Supply Sources for Tacloban North

## LEGEND:

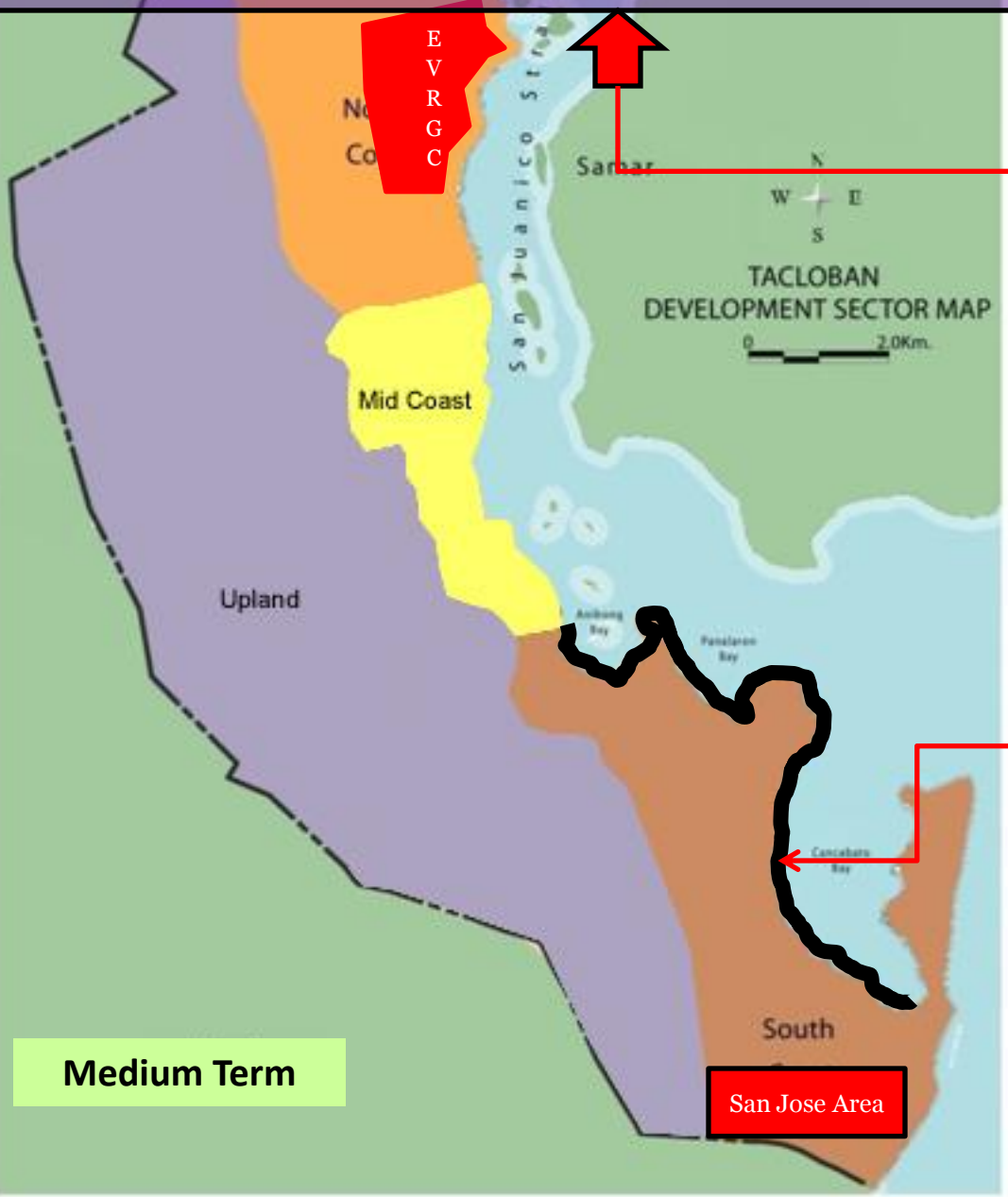
-  Proposed Location of Water Tanks
-  Potential Location of Productive Well Sites
-  Small Water Impounding Basins Sites
-  Surface Water Run-Off from Jaro



# Small water impounding with recreational facility



# Infrastructure Projects (for resilience & economic development)



**EV  
R  
G  
C**

**Initiate talks for Babatngon Port Development**

**Road widening of Maharlika Highway & other key routes**

**Construction of 4-lane road with sturdy shore protection structure**

**Medium Term**

**San Jose Area**





# BARANGAY MAP TACLOBAN CITY



**LEGEND:**

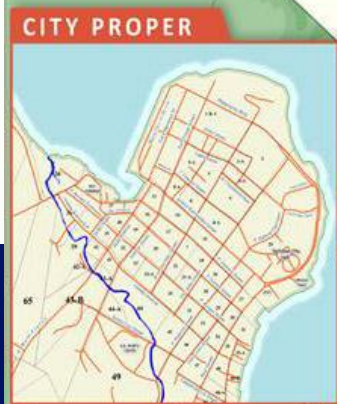
- LEYTE - SAMAR ROAD
- DAAN MAHARLIKA HIGHWAY
- PICAS - SAN JOSE DZR AIRPORT ROAD
- TACLOBAN - BAYBAY - SOUTH ROAD
- TACLOBAN BY-PASS ROAD (NEW DIVERSION ROAD) MOUNTAIN SIDE



# Proposed Road Improvements

**LEGEND:**

- Proposed Widening and Upgrading of Maharlika Highway
- Proposed Coastal Road
- Proposed Expansion of Urban Road System, including Causeway to Airport
- Proposed Parallel- Diversion Road



Municipality of Palo

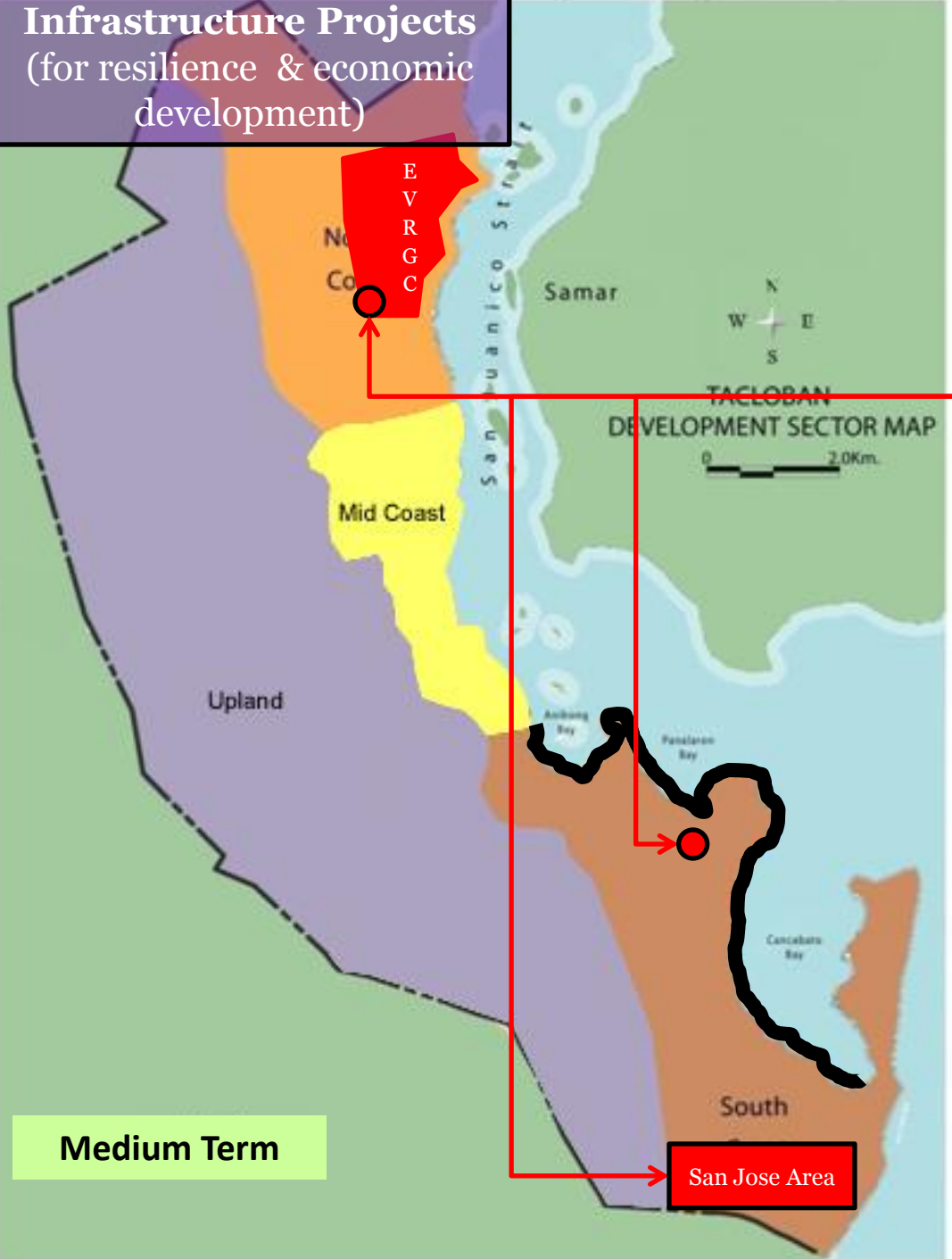
Municipality of Palo

# Proposed Maharlika Highway Improvement





# Infrastructure Projects (for resilience & economic development)



**Construction of Permanent  
Evacuation Facilities**

**Review masterplan of  
drainage system**

**Review of flood control  
structures along major rivers**

**Introduction of solar-  
powered street lights**

**Medium Term**

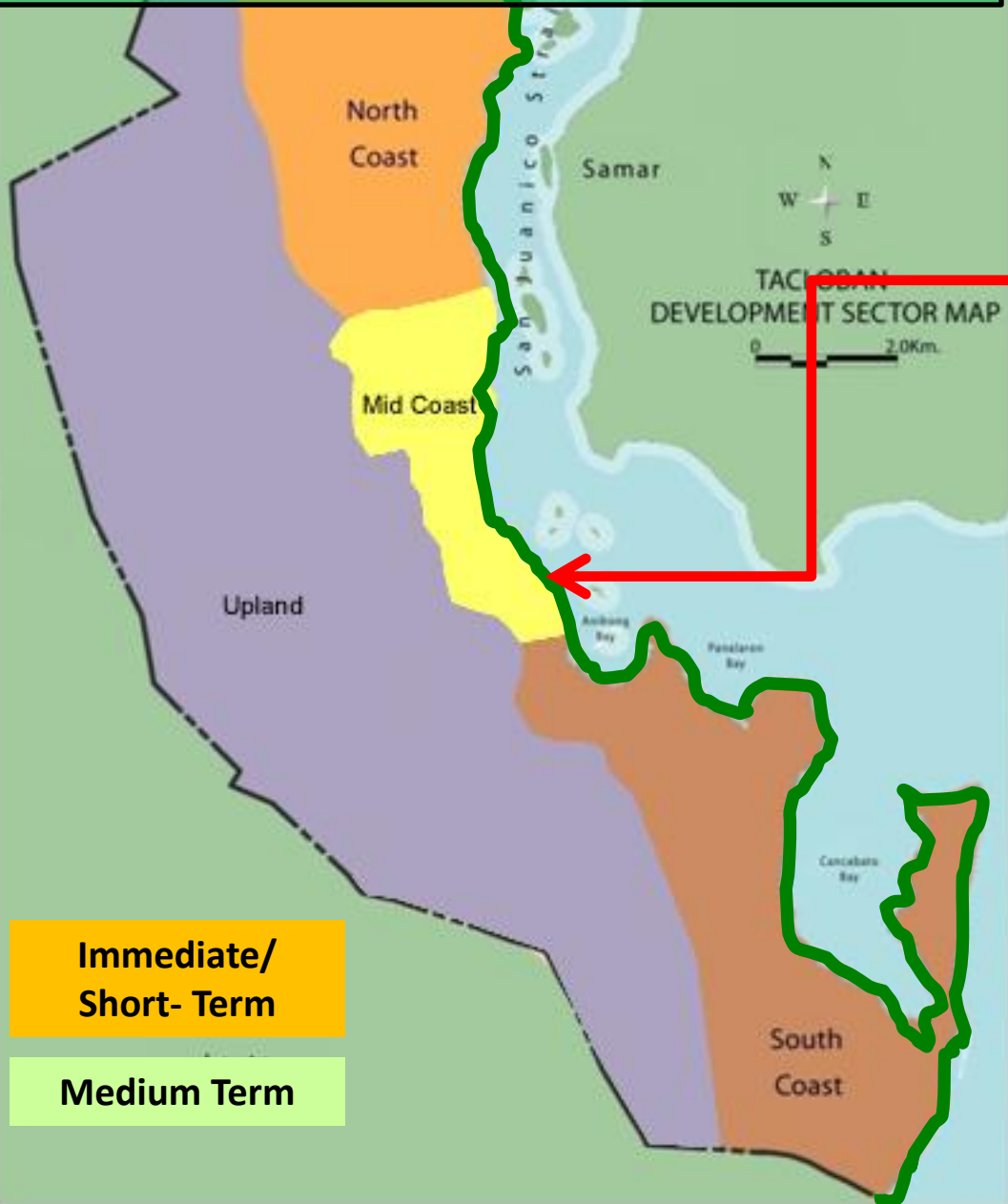
**San Jose Area**



# Environment

We will enhance coastal protection, water resource quality, and waste management; update our land use plan and local building guidelines; and improve early warning and evacuation systems.

# Disaster Risk Reduction and Management Projects



Vulnerability and risk assessment of urban coastal areas

Review and updating of Comprehensive Land Use Plan and Zoning Ordinance

Establishment of early warning and evacuation system

Immediate/  
Short- Term

Medium Term



**Proposed Calvary Hill Park and Evacuation Center**

PROPOSED  
**TACLOBAN CITY EVACUATION CENTER**





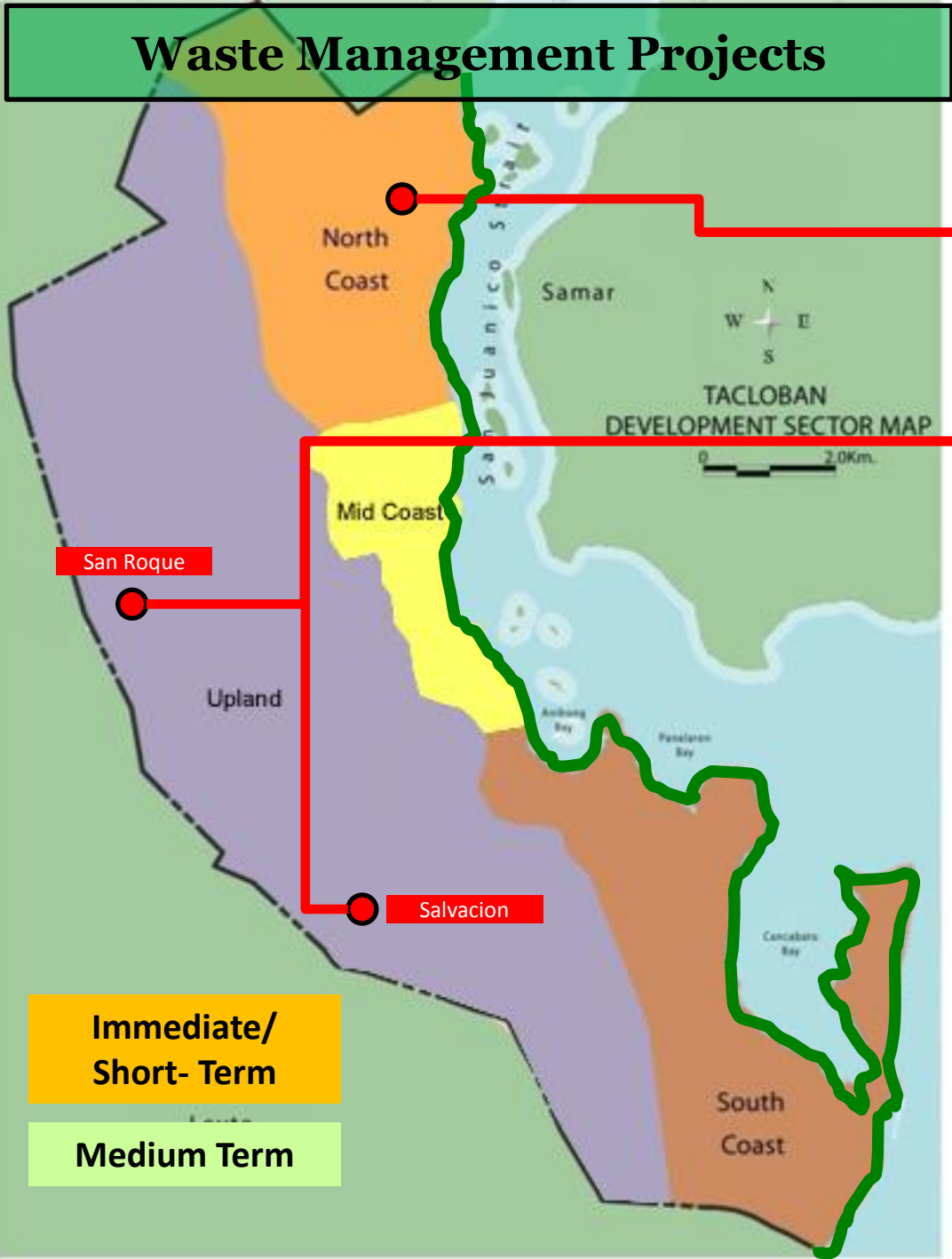
PROPOSED  
**TACLOBAN CITY EVACUATION CENTER**





FLOOR PLAN  
TACLOBAN CITY EVACUATION CENTER  
SCALE 1 300MTS.

# Waste Management Projects



**Safe closure and rehabilitation of existing dumpsite**

**P500K**  
(pre closure plan)

**Establishment of new sanitary land fill (Possible locations)**

**P75M**

**Review of solid waste management program of city**

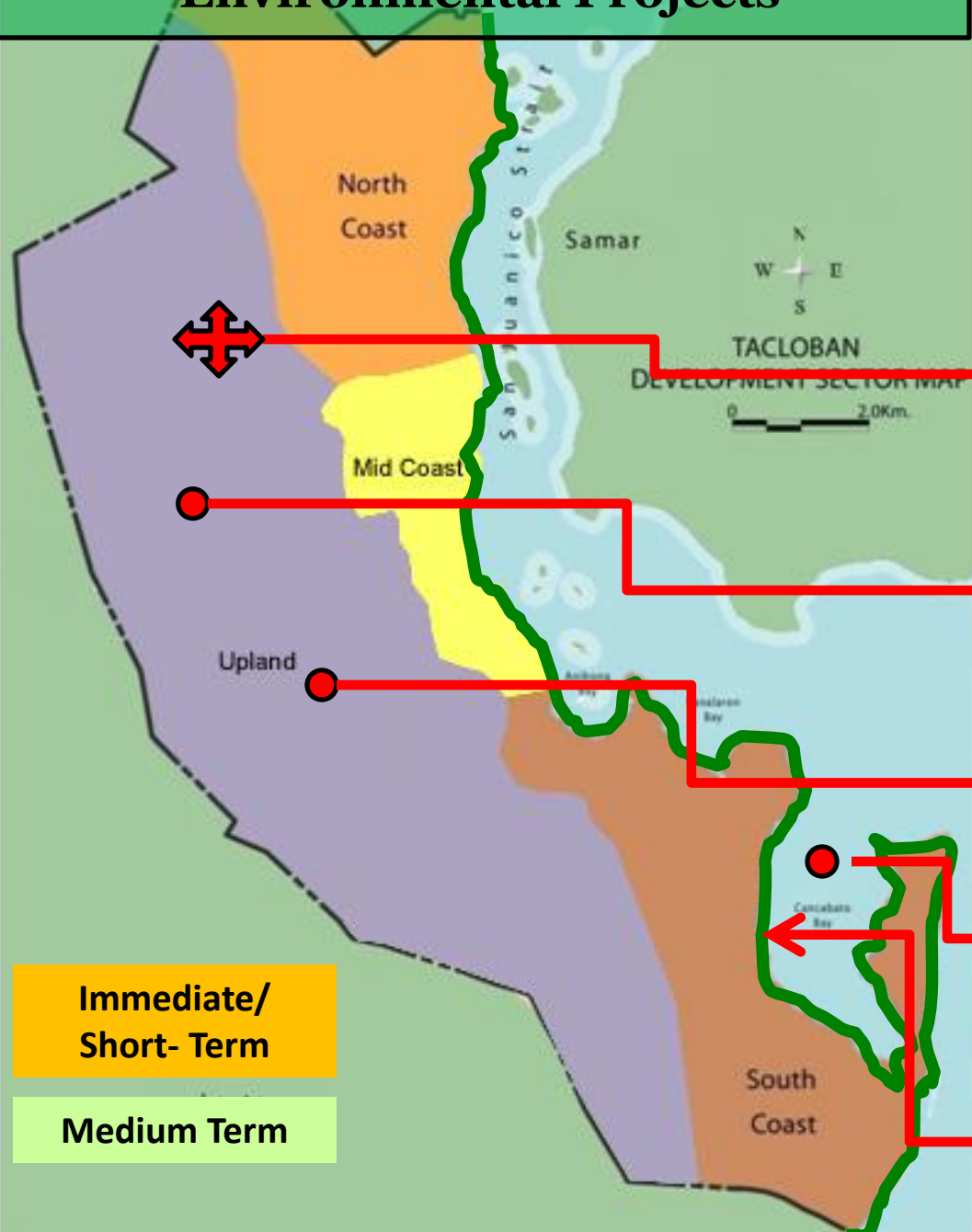
**Review of septage management plan**

**Feasibility study for city-wide hospital waste management plan**

**Immediate/  
Short- Term**

**Medium Term**

# Environmental Projects



Immediate/  
Short- Term

Medium Term

**Rainforest development project to cover 4,000 has. including riverbank protection**

**P60M**

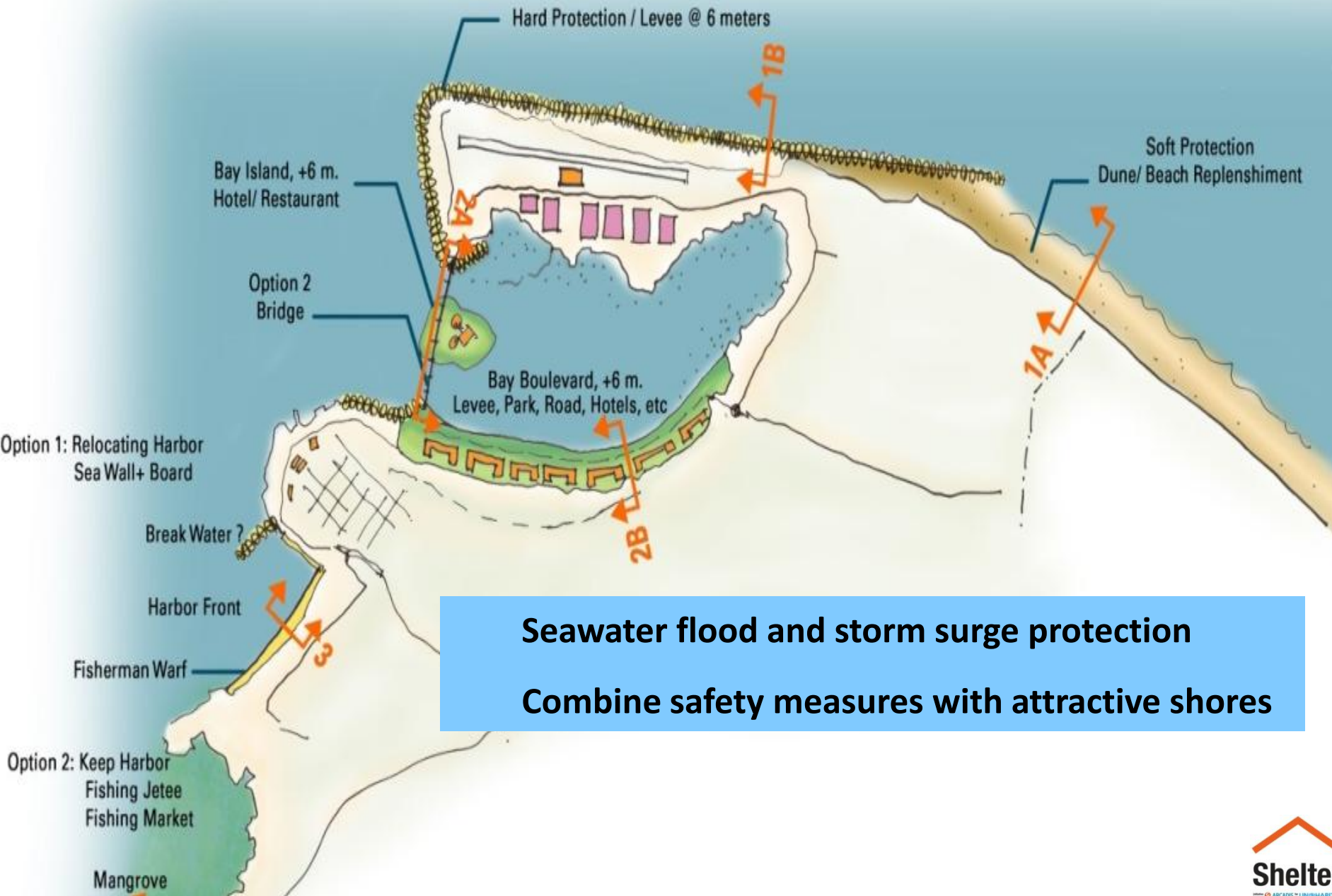
**Establishment of rainwater catchments**

**Natural resources inventory**

**Marine and Coastal Resource Assessment Study**

**Mangrove and beach forest development project, from Payapay to Tagpuro**

# Coastal Protection Options (for further study)

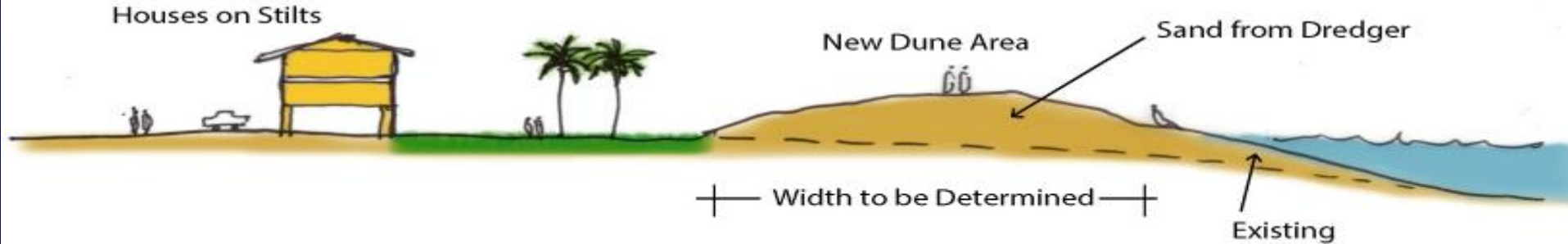


**Seawater flood and storm surge protection**  
**Combine safety measures with attractive shores**

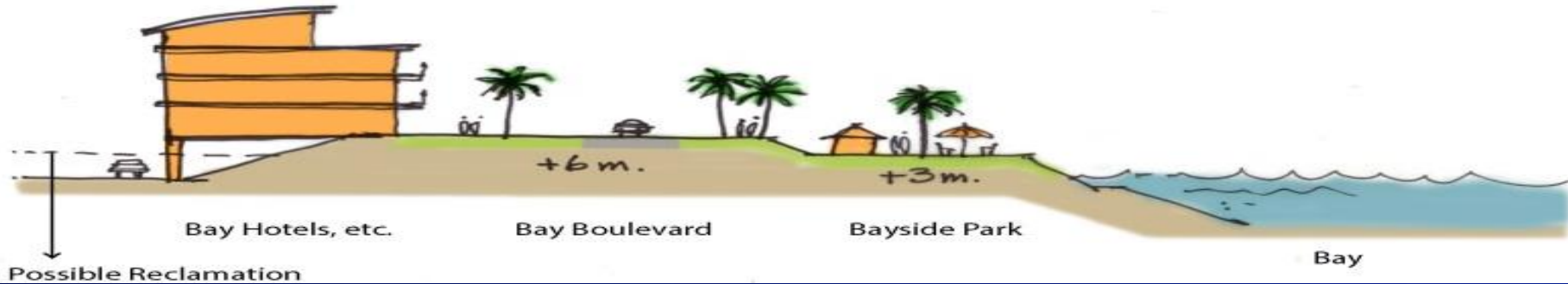
# Coastal Protection Options (for further study)



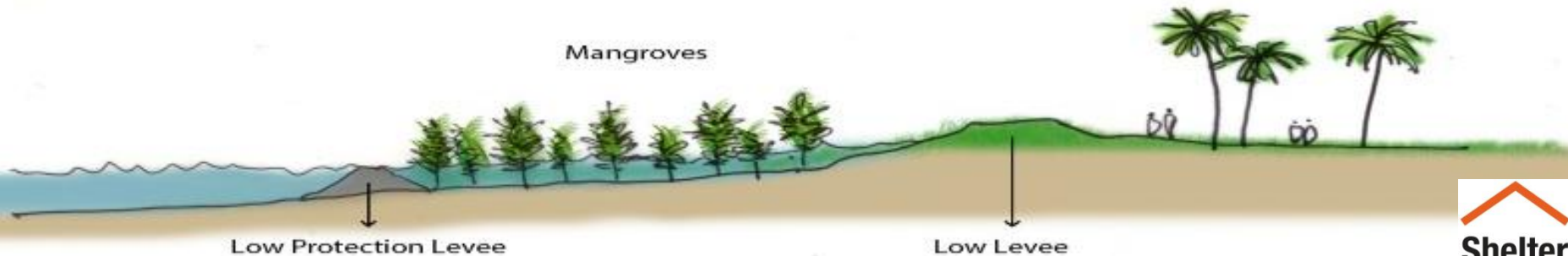
## Soft Protection by Dune Area



## Bay Boulevard



## Mangroves



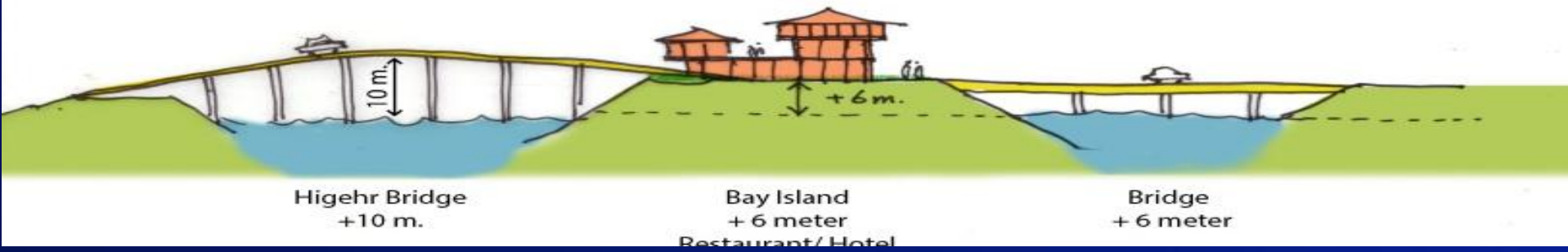
# Coastal Protection Options (for further study)



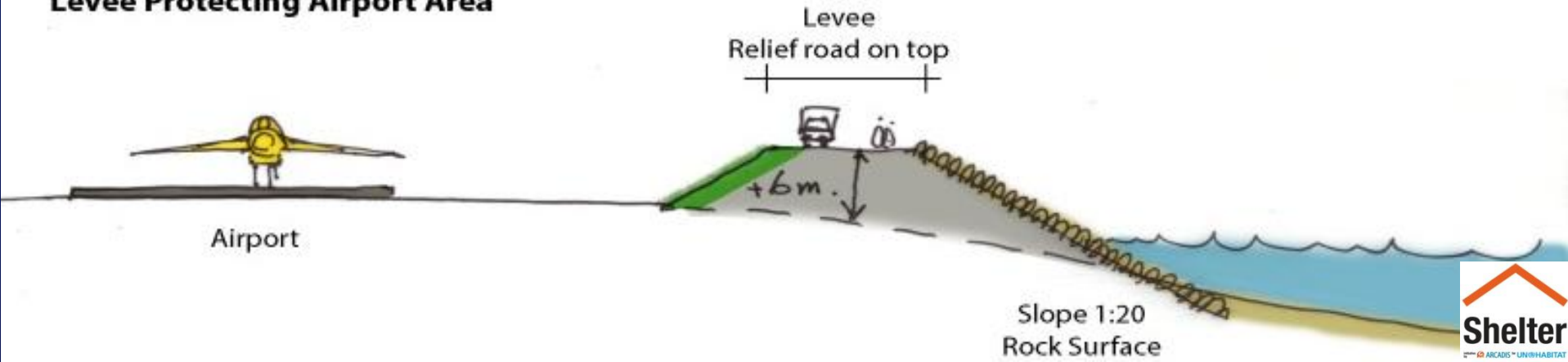
## Harbor and Fish Market Fisherman Warf



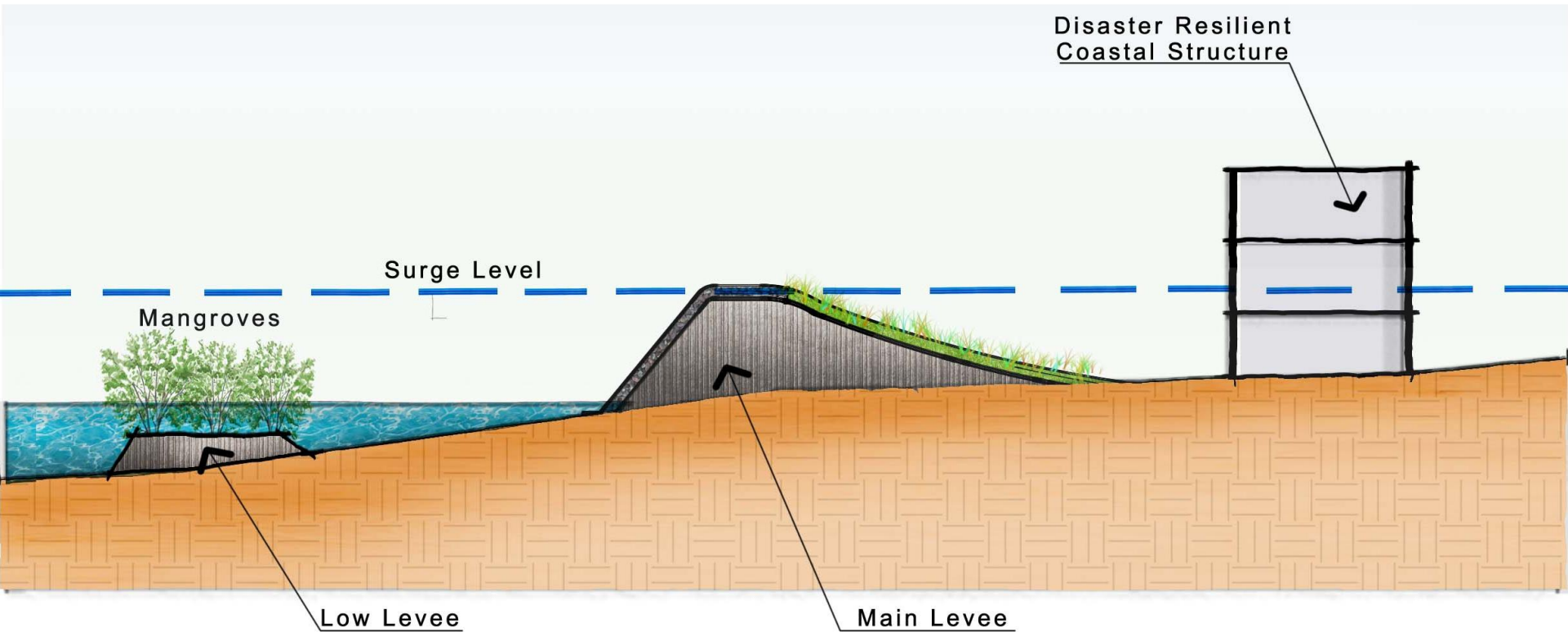
## Bay Island and Causeway



## Levee Protecting Airport Area



# Coastal Protection Options (for further study)





# Strategic Policies and Regulations



# Policies and Regulations Matrix



Recovery Plan Topic	Proposed Policies and Regulations
<b>1. Sustainable Land Use and Urban Design</b>	<ul style="list-style-type: none"> <li>• Formulation of policy and measures for the “Safe and Unsafe Zones”</li> <li>• Updating of CLUP and CDP to mainstream disaster risk reduction and management and climate change adaptation</li> <li>• Preparation of local building ordinance to specifically include disaster mitigation regulations (localization of B.P. 220)</li> </ul>
<b>2. Shelter</b>	<ul style="list-style-type: none"> <li>• Reclassification of land for socialized housing</li> </ul>
<b>3. Economic Development</b>	<ul style="list-style-type: none"> <li>• Enhancement of the city's Investment Incentives Code to complement and be consistent with the CLUP and CDP and TRRP</li> </ul>
<b>4. Cross Cutting</b>	<ul style="list-style-type: none"> <li>• Formulation and adoption of policy and measures for pre-emptive evacuation</li> <li>• Prepare the city's Disaster Risk Reduction and Management (DRRM) Plan</li> </ul>



Salamat!

Waray imposible!



Send feedback and comments to :

0949-341-9342/ 0917-9776684/  
0927-797-6927  
taclobanrehab@gmail.com  
info@tacloban.gov.ph

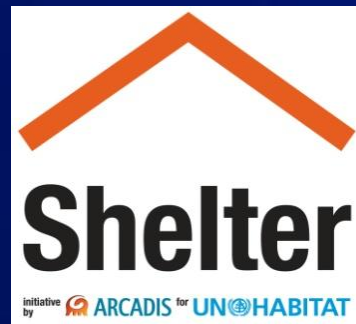
Presentation will be uploaded soon to:

[www.facebook.com/TRSDG](http://www.facebook.com/TRSDG)

With support from:



And inputs from:



ARCADIS SHELTER PROGRAM



ALLIANCE FOR SAFE AND  
SUSTAINABLE RECONSTRUCTION