

# Imperatives of PROFOR Study to Bago City's **Integrated Conservation Area** Management Approach

**Presentation to the Asia Pacific Forestry Week**

February 24, 2016

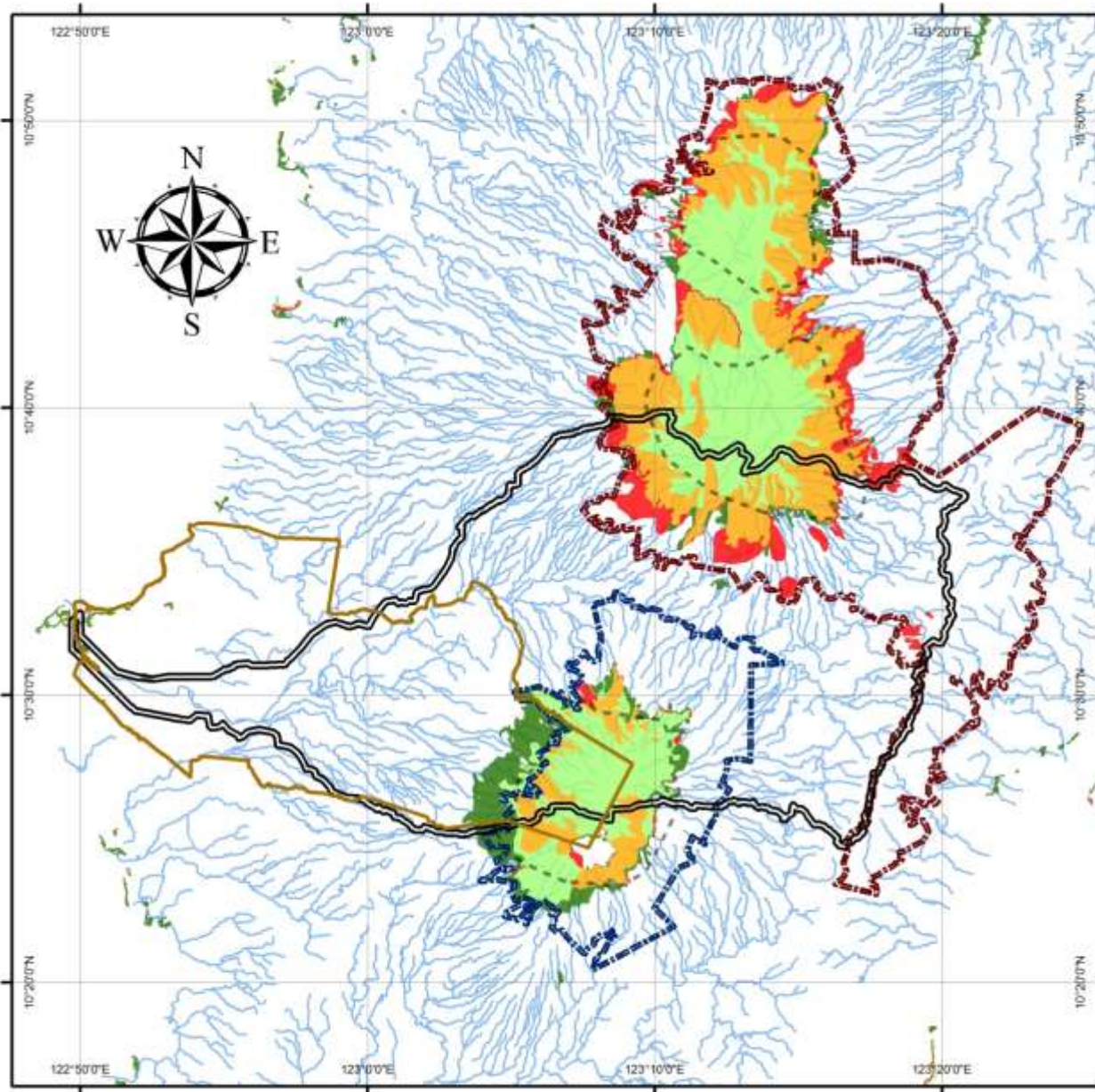
**Vicente D. Mesias**

SEMS/ENRO-Designate

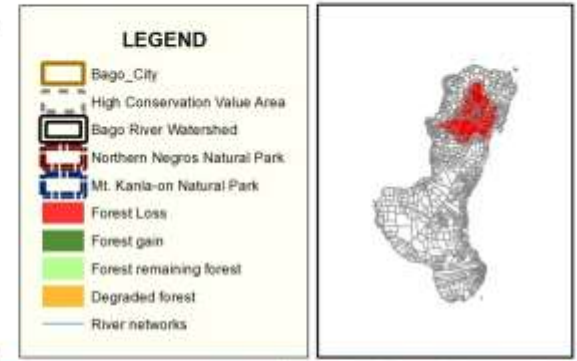
# Background

- ❖ Bago City initiates/replicates trailblazing environmental good practices
- ❖ Collaboration with like minded organizations, agencies, programs and activities of local and international partners
- ❖ Implementation of Climate change mitigation program that includes formulation and implementation of *FLUP/Conservation Area Plan* with technical support from DENR RO6 and B+WISER
- ❖ **Strong support of the City for environmental governance**

# STRATEGIC LOCATION OF BAGO CITY vis.a,vis PAs and Watershed



## HIGH CONSERVATION VALUE AREAS (HCVA) AND FOREST CONDITION IN BAGO RIVER WATERSHED, MOUNT KANLA-ON NATURAL PARK AND NORTHERN NEGROS NATURAL PARK



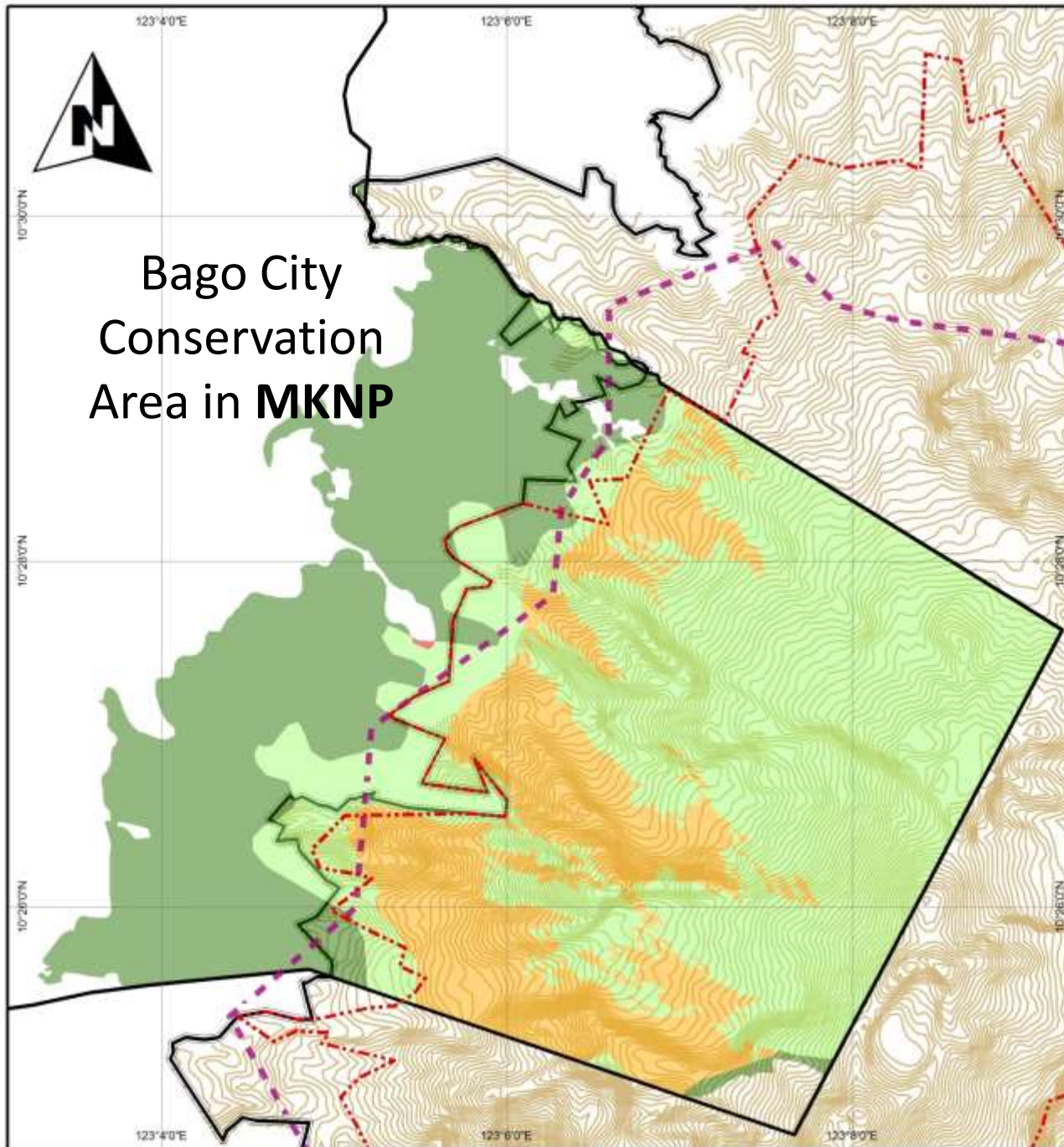
Forest Cover Change (2003-2010)	Area Covered (hectares)	
	Mt. Kanla-on Natural Park	Northern Negros Natural Park
Forest degradation	3,185.64	13,843.61
Forest loss	259.68	4,432.61
Forest gain	1,414.63	1,055.81
Forest remaining forest	6,201.07	12,971.85
<b>High Conservation Value Area</b>	<b>9,313.46</b>	<b>18,241.28</b>

**Data Sources:**  
 PA Boundary: DENR-PENRO Negros Occidental and Provincial Environment Management Office  
 LGU Boundary: Bago City FLUP  
 HCVA: USAID-DENR Ecological Assessment Result (B+WISER Program)  
 Forest Cover Change: NAMRIA (2003-2010)

**Disclaimer:** The boundaries and names on this map do not imply official endorsement or acceptance by the US Government



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# Bago City Conservation Area in **MKNP**

## HIGH CONSERVATION VALUE AREAS (HCVA) AND FOREST COVER CHANGE IN BAGO CITY, NEGROS OCCIDENTAL



Forest Cover Change (2003-2010)	Area (ha)
Forest loss	8.62
Forest gain	1,802.47
Forest remaining forest	2,644.28
Degraded forest	1,140.94
<b>Total Area</b>	<b>5,596.31</b>

\* Calculated area includes even those outside the jurisdiction of MKNP/HCVA

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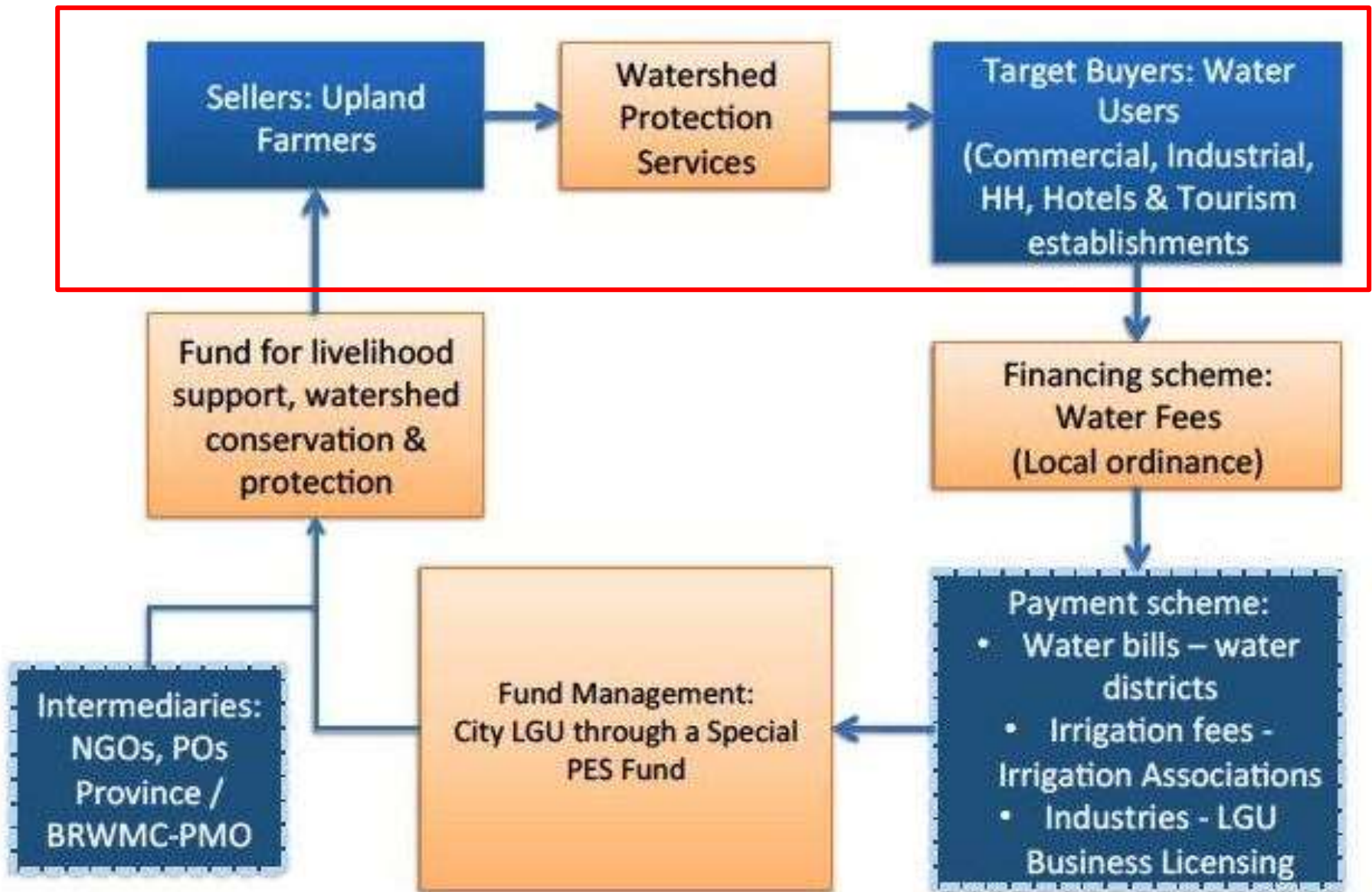
# City's Forest and Watershed Interventions

1. Payment for Environmental Services- PES (Environmental Protection Fee Ordinance, C.O. No.15-16)
2. Multi-partite Ecologically-Balanced and Sustainable Agroforestry Project (MEBSAP)
3. MKNP Conservation Area Protection and Management Thru LAWIN (in collaboration with DENR and B+WISER)
4. Mangrove Management Initiatives

# Environmental Protection Fee Ordinance

## Features

- ❖ Enacted by the City of Bago with assistance from B+WISER
- ❖ MKNP ES valued at Php 1.8B using the USAID Ecosystem Value Estimation Calculator of MERFI
- ❖ Collection of fees from the **BUYERS of the Environmental Services** (water)- i.e., irrigators/sugarcane planters/farmers, households, government institutions, resorts, and industries
- ❖ **SELLERS of Services are Upland Communities** who do forest protection
- ❖ Envisioned to implement a **performance-based arrangement** with the SELLERS (local communities) of environmental services
- ❖ For the **Protection and Management of Forest, biodiversity, and watershed** or the **Management of Conservation Areas**
- ❖ **Estimated fees that can be collected- Php 7-8 Million annually**



**PES DESIGN FOR THE BAGO RIVER WATERSHED**

# MEBSAP

## Objectives

- Tree growing in A & D Land to buffer MKNP
- To reduce pressure to MKNP from charcoal/fuel-wood production
- Design to help farmers earn income
- Ensure sustainable fuel-wood/energy supply for Bago City
- Leading to local certification of sustainable fuel-wood/charcoal source

- **Project Duration:** 3 years and beyond
- **Partners/Proponent:** Upland Barangays
- **Total No. of Beneficiaries:** 59 covering 2 Barangays
- **Target Area:** 100 hectares
- **Area Planted :** 63 hectares
- **Status of Area:** some are ready for harvest
- **Mode of Arrangement:** Contract b/w Farmers, Ecoop, and LGU

## Initial Impacts

- **Reduction of charcoal-making within MKNP**
- **High Awareness of People on Forest conservation**
- **More farmers willing to participate**



## Multi-partite Ecologically Balanced Sustainable Agro Forestry Project (MEBSAP)



Beneficiaries are at 80-100%  
planting accomplishment as of today

# MKNP Conservation Area Protection and Management Thru LAWIN (in collaboration with DENR and B+WISER)

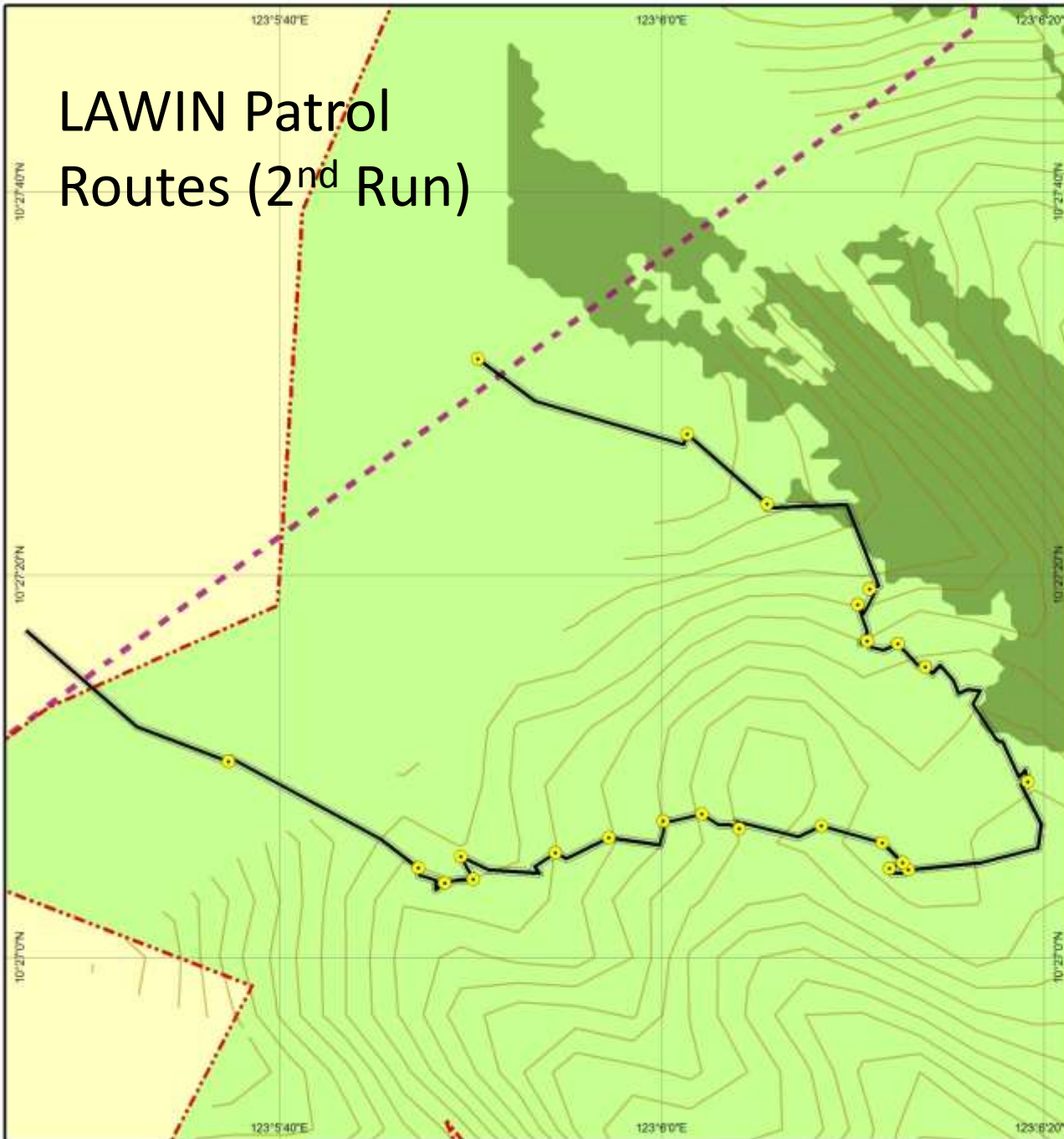
- Local forest and biodiversity forest protection system having the local forest patrollers in the frontline (KGB)
- Use of the Cybertracker technology for monitoring threats, forest condition, and biodiversity
- Use of SMART (open source) software for data processing with GIS interface
- Patrollers team (composed of 20 KGBs)

## Status:

- Conducted several runs of patrols
- Data are processed and used for immediate response to threats identified
- Consultation with upland communities and suspected violators conducted and agreement reached as part of response





# LAWIN Patrol Routes (2<sup>nd</sup> Run)



## CONSERVATION AREA FOR THE IMPLEMENTATION OF LAWIN FOREST PROTECTION SYSTEM IN BAGO CITY, NEGROS OCCIDENTAL



### LEGEND

-  Mt. Kanla-on Natural Park
-  Contour lines
-  Strict Protection Zone
-  LAWIN Observation points
-  Patrol route
-  HCVA (Biodiversity)
-  Bago City

CA Status/Classification	Area (ha)
Closed Forest	2,061
Open Forest	1,658
Special CA	60
Built-up (EDC)	15
<b>Total Area</b>	<b>3,794</b>

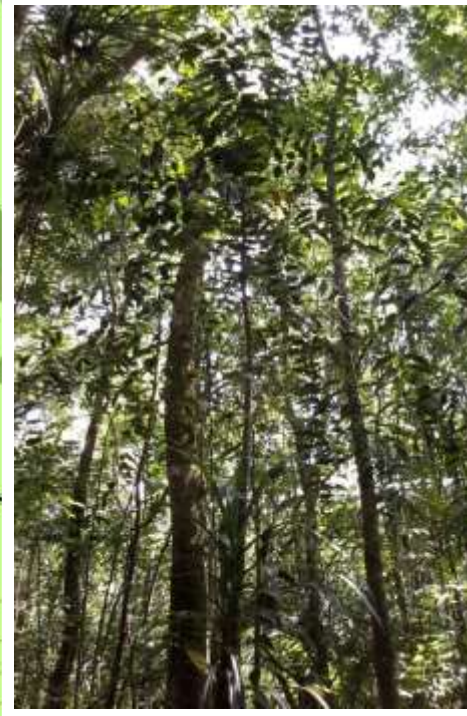
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**BIODIVERSITY AND WATERSHEDS IMPROVED FOR STRONGER ECONOMY AND ECOSYSTEM RESILIENCE (B+WISER) PROGRAM**

CONSERVATION AREA FOR THE  
IMPLEMENTATION OF LAWIN FOREST  
PROTECTION SYSTEM  
IN BAGO CITY, NEGROS OCCIDENTAL



Waypoint ID: 8      Date Time: 11/19/15 11:01 AM

**Other Observations**

Other Observations 1: **1 wood pecker**

Distance of threat from waypoint (in meter): 0.0

Bearing or direction of threat from waypoint (in degree): 0.0

**Birds - Indirect Observations - Wildlife**

Species: Alimukon / White-eared Brown Dove (*Phapitreron leucotis nigrorum*)

Evidence 1: Sound

Evidence 2: Sound

Number: 1.0

**Flora - Direct Observations - Wildlife**

Species: Almaciga (*Agathis philippinensis*)

Diameter (dbh) in cm: 7.0

Number of Trees: 1.0

Observed through gathering: No

Species: Almaciga (*Agathis philippinensis*)

Diameter (dbh) in cm: 3.0

Number of Trees: 1.0

Observed through gathering: No



**Patrol Day: Thursday, 11 19, 15**

Start Time: 9:36:08 AM    End Time: 2:44:43 PM    Rest Minutes: 0    **Total Hours Patrolled: 5h 9m**

Distance Travelled (km): **4.96**    [Set Track...](#)    [View TrackPoints...](#)

Observations / Waypoints: [Import Waypoints...](#)

Waypoint ID	X Coordinate	Y Coordinate	Time	Direction	Distance	Observation	Comment	Attachr
6	123.102988632518	10.4545949187682	10:38:02 AM			Flora (1); Forest Condition (1)		1 Files
7	123.102434314201	10.4545538216058	10:50:19 AM			Flora (4); Forest Condition (1)		1 Files
8	123.103830623754	10.4542153029509	11:01:40 AM			Other Observations (1); Birds (1); Flora (9); F...		9 Files
9	123.105322173186	10.4525482136231	11:41:27 AM			Birds (1); Flora (1)		1 Files

Management Office  
Assessment Result  
(2003-2010)

on this map do not imply  
the US Government









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**CONSERVATION AREA FOR THE  
IMPLEMENTATION OF LAWIN FOREST  
PROTECTION SYSTEM  
IN BAGO CITY, NEGROS OCCIDENTAL**



**LEGEND**

-  Mt. Kanla-on Natural Park
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-  Strict Protection Zone
-  HCVA (Biodiversity)
-  Bago City
-  Patrol route
-  LAWIN Observation points

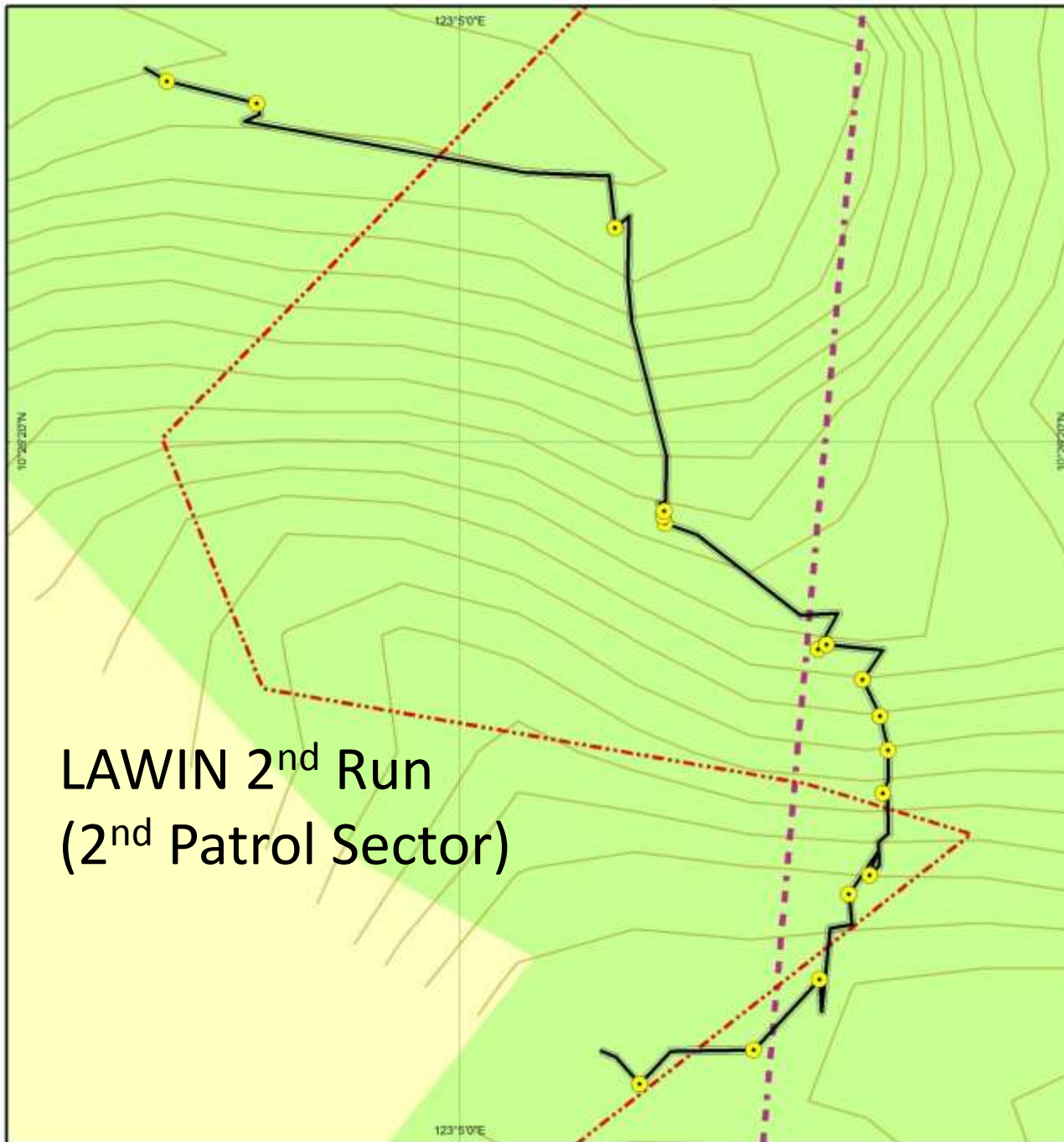
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**LAWIN 2<sup>nd</sup> Run  
(2<sup>nd</sup> Patrol Sector)**

Layers | Waypoint Information

Waypoint ID: 3      Date Time: 11/20/15 11:13 AM

Threats: Charcoal  
 Distance of threat from waypoint (in meter): 0.0  
 Bearing or direction of threat from waypoint (in degree): 0.0  
 Response to threats: Recorded  
 Note: 4 takinis (pakiling)

Threats: Timber Harvesting  
 Distance of threat from waypoint (in meter): 0.0  
 Bearing or direction of threat from waypoint (in degree): 0.0  
 Response to threats: Recorded  
 Note: stamp

**Hut or House - Threats**

Threats: Hut or House  
 Distance of threat from waypoint (in meter): 0.0  
 Bearing or direction of threat from waypoint (in degree): 0.0  
 Response to threats: Recorded  
 Note: charcoal area,



**CONSERVATION AREA FOR THE IMPLEMENTATION OF LAWIN FOREST PROTECTION SYSTEM**



**Patrol Day: Friday, 11 20, 15**

Start Time: 10:23:28 AM    End Time: 2:40:28 PM    Rest Minutes: 0    **Total Hours Patrolled: 4h 17m**

Distance Travelled (km): **2.44**    [Set Track...](#)    [View TrackPoints...](#)

Observations / Waypoints: [Import Waypoints...](#)

X Coordinate	Y Coordinate	Time	Direction	Distance	Observation
123.081234232488	10.4414742443653	10:26:56 AM			Forest Condition (1)
123.081880002761	10.4412137458066	10:38:27 AM			Annual and Perennial Crop (1); Forest Condition (1)
123.084449787068	10.4404208134261	11:13:06 AM			<b>Charcoal, Logging, Hunting, &amp; Timber &amp; NTFP Harvesting (3); Hut or House (1); Fores...</b>
123.084806579441	10.4383065462302	11:48:33 AM			Landslides (1)

# Mangrove Forest Management Initiatives

- ❖ Entered into a Co-management Agreement with DENR, Province of Neg. Occ.
- ❖ Organized and made functional the Bantay Katunggan and Bantay Dagat
- ❖ Accessed fund and technical support for mangrove refo project from DENR and World Bank under the NPS-ENRMP and established additional mangrove plantation of 84 hectares
- ❖ Established Satellite Mangrove Nurseries in four coastal barangays
- ❖ Inclusion in the NOCWAMA, working with the Province of Neg. Occ., DENR and GIZ PAME for the declaration as a RAMSAR Site
- ❖ Working for the establishment of MPA for Irrawaddy Dolphins



# Relevance of PROFOR Study to Bago's Interventions

- ❖ It will provide science-based numbers to our qualitative claims on the need to protect the remaining natural capital and enhance the forests toward CC mitigation and poverty alleviation objectives;
- ❖ It will make our job as development planners and project implementers easier in convincing local decision makers, politicians, and local folks into investing and supporting the efforts in forest conservation, protection, and regeneration;
- ❖ It will provide a standard measure on how far Bago's environmental CPR interventions are able to benefit the community in terms of ES value, damage and possible costs avoided, and contribution to GHG sequestration; and
- ❖ It will highlight the need to provide more livelihood support to upland farmers and communities as they are integral to the sustainable utilization of very important natural capital – the forests and forestlands.



Thank you....