

# FORESTRY INVESTMENT ROAD MAP



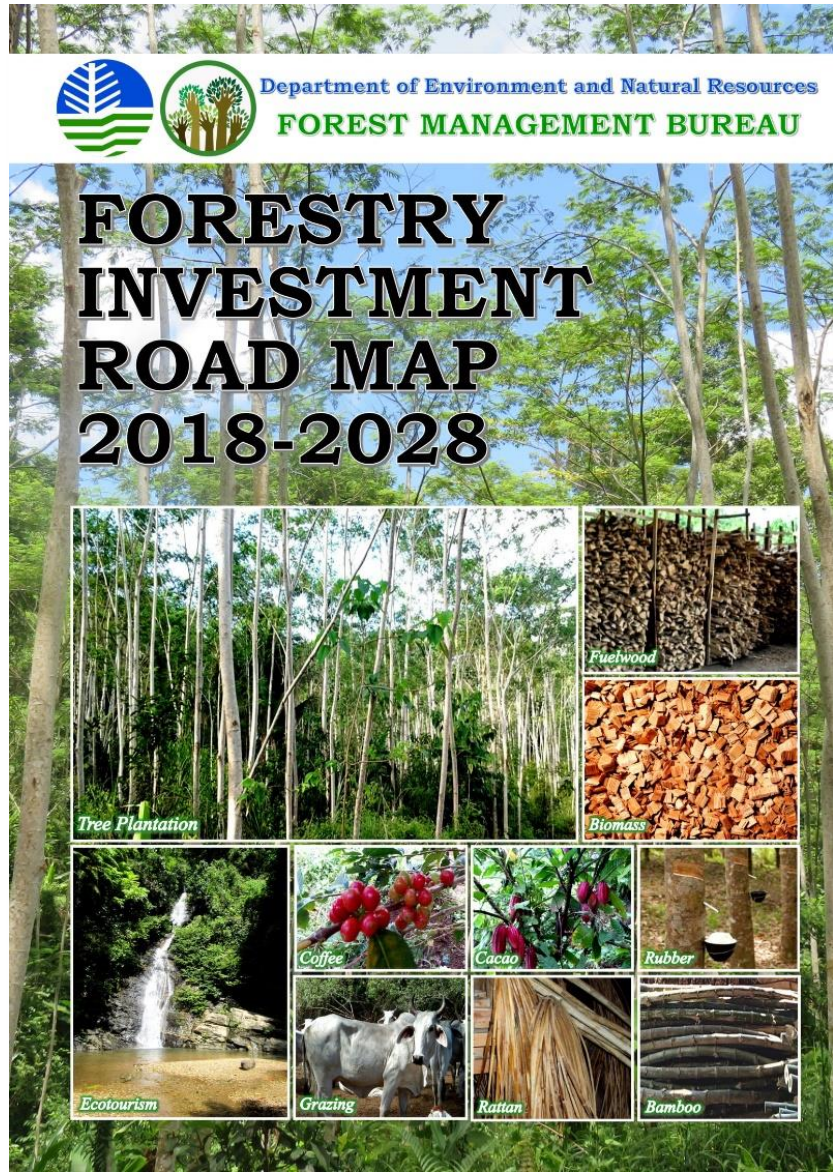
**For. NONITO M. TAMAYO, CESO IV**  
Director, Forest Management Bureau  
October 26, 2018 | SFFI Convention  
Puerto Princesa City, Palawan

# Presentation Outline

- I. About the FIRM
- II. Vision
- III. Goals
- IV. Specific Objectives
- V. Potential Investment Areas
- VI. Investment Categories
- VII. Investment Opportunities and Benefits
- VIII. Challenges
- IX. Strategic Components and Activities



# About the FIRM



## Purpose:

- 1) To steer the development of the forests through local and foreign direct investments
- 2) To increase the contribution of the forestry sector to the Gross Domestic Product (GDP)



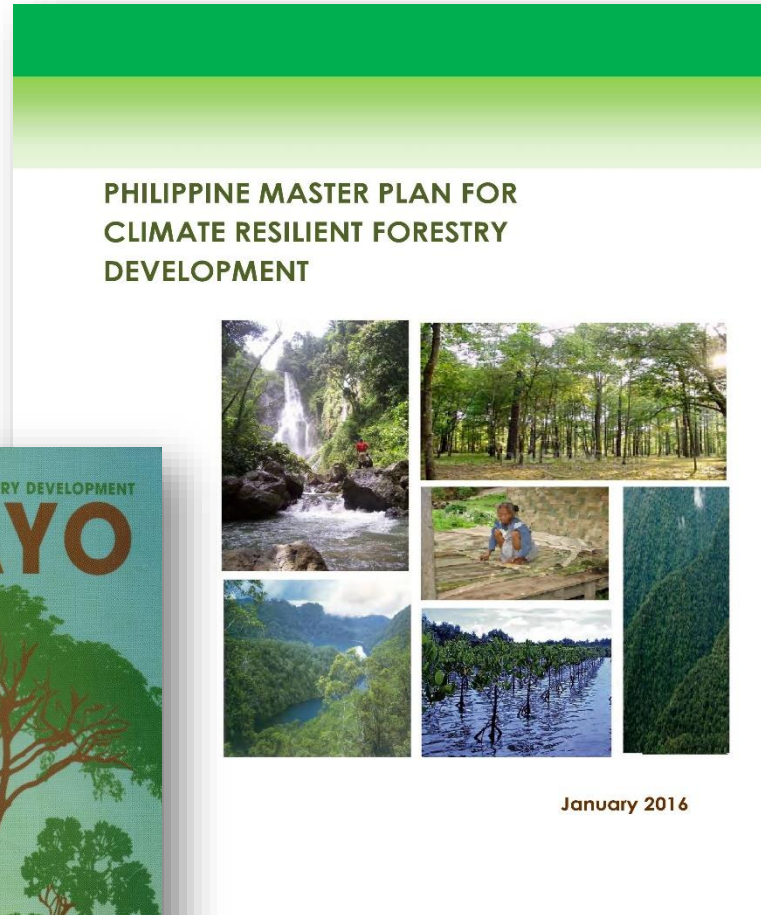
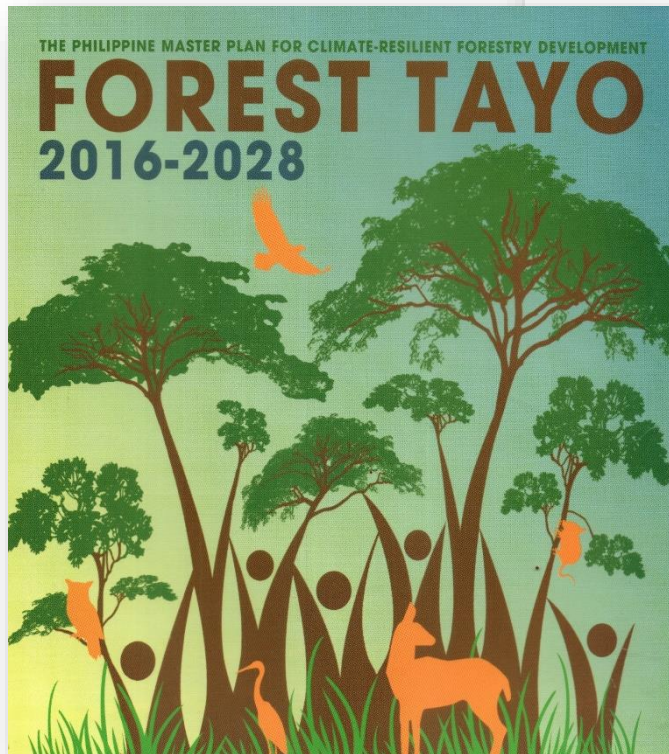
**MATATAG. MAGINHAWA.  
PANATAG NA BUHAY.**





# Overall Strategic Framework





“Climate-resilient and sustainably-managed watersheds and forest ecosystems, providing environmental and economic benefits to society”







# FIRM VISION

***“Revitalized Philippine Forestry  
Investments Toward Inclusive  
Growth and Sustainable  
Development”***

# GOALS OF THE FIRM



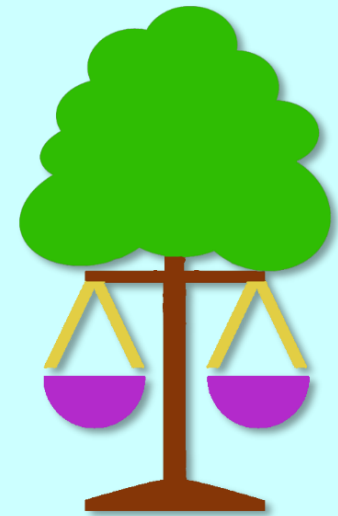
Sustained forestry  
investments



Sustainable supply of  
raw materials



Enabling environment  
for investments



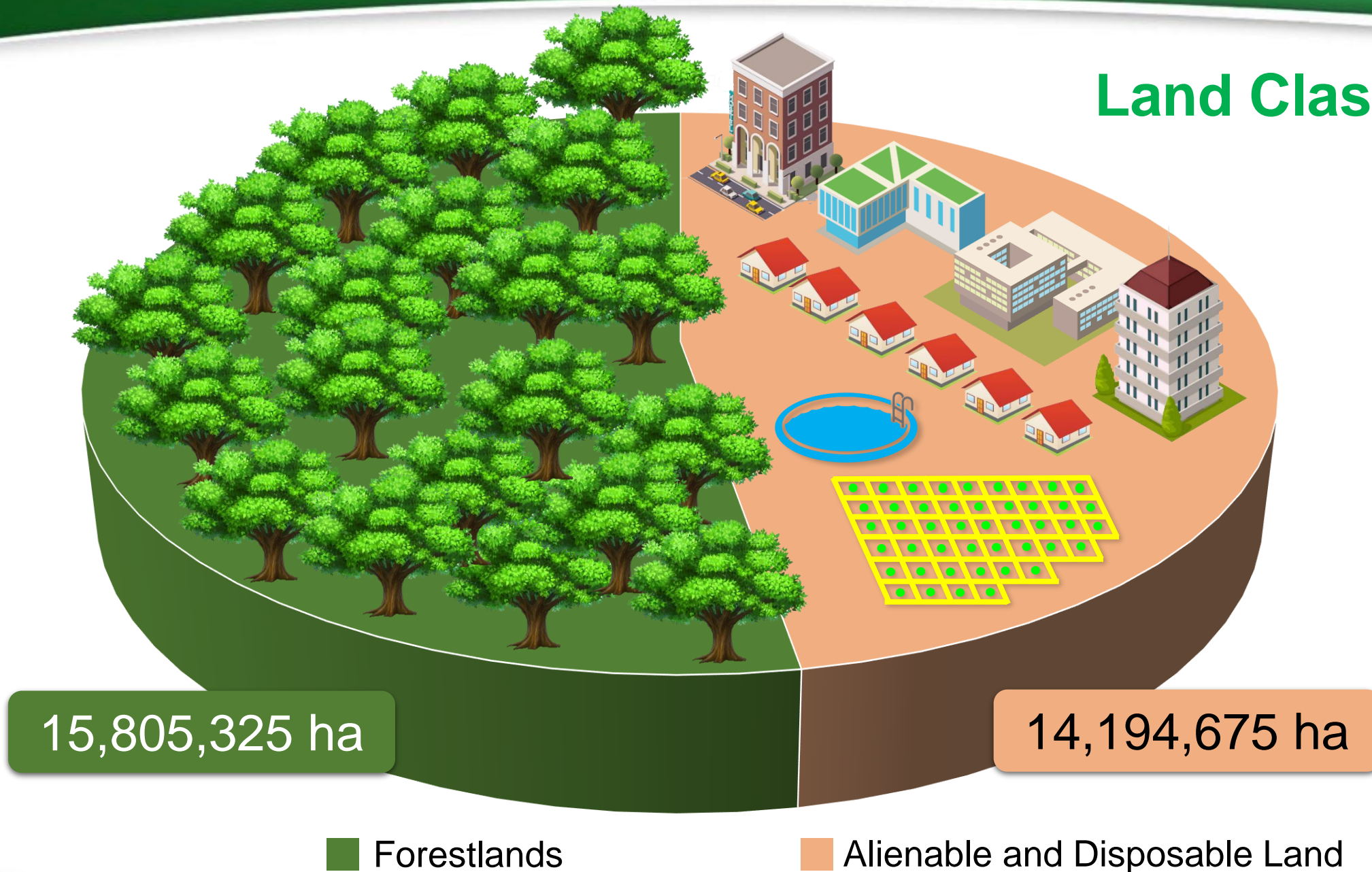
Promote equity and  
social justice



# OBJECTIVES

1. Identify and delineate potential investment areas based on regional comparative advantages
2. Develop and maintain:
  - a. 1,439,298 ha commercial forest plantations by 2028
  - b. 297,234 ha fuelwood/biomass energy plantations by 2028
  - c. 500,000 ha non-timber forest product plantations and high value crops by 2028
  - d. 111,000 ha grazing land by 2028
3. Formulate or amend policies and guidelines related to forestry investments
4. Provide appropriate tenure instruments for private investors or community partnerships with private investors

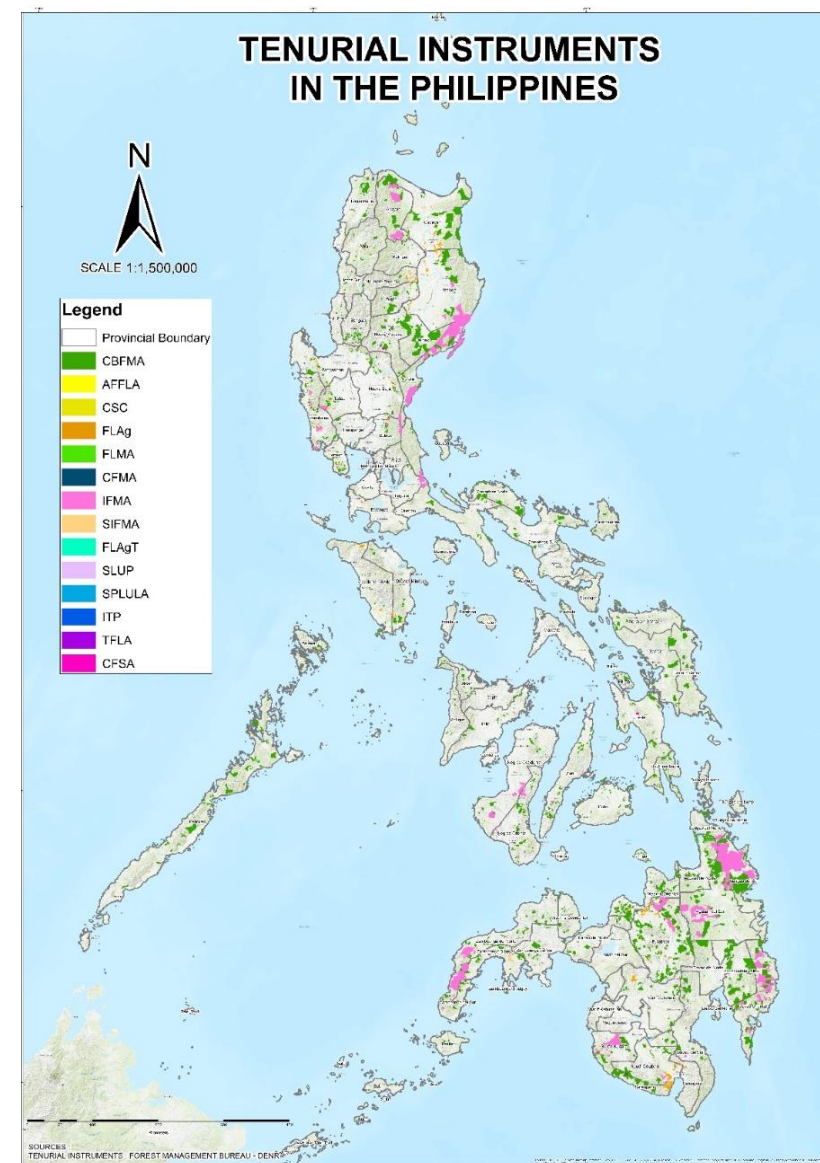
# Land Classification





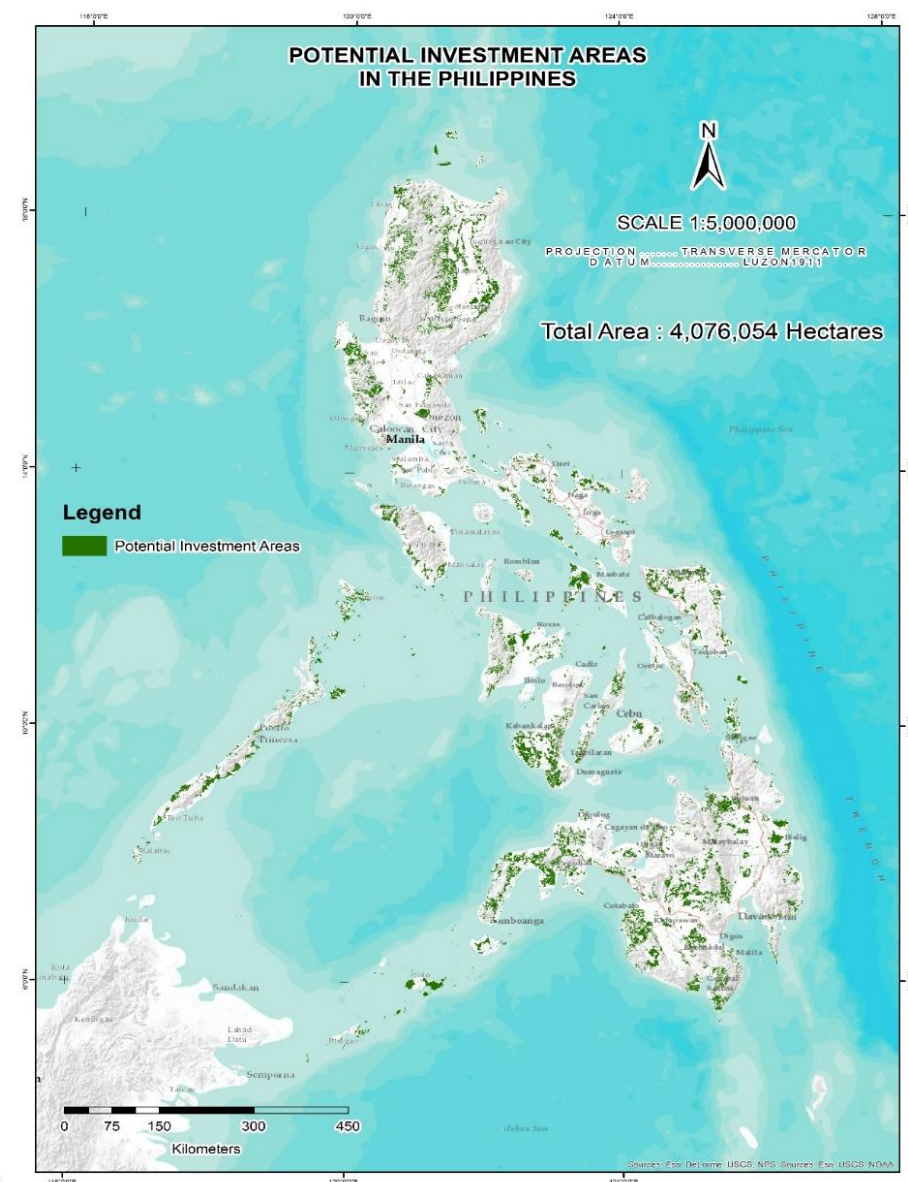
## Existing Tenure Instruments

Type	Number	Hectares
<b>TOTAL</b>		<b>2,798,711</b>
CBFMA	1884	1,615,598
IFMA	127	961,510
FLGMA	186	53,536
SIFMA	1530	32,219
TFLA	53	5,870
PFDA	115	5,275
FLAg	35	3,856
SLUP	126	516
AFFLA	2	398
FLAgT	32	306
SPLULA	14	67



# Potential Investment Areas by Region (ha)

Region/Province	Total (Ha.)
<b>TOTAL</b>	<b>4,076,054.08</b>
CAR	302,831.13
NCR	688.50
I	166,277.67
II	301,273.53
III	172,463.95
4A	114,478.21
4B	384,141.90
V	238,858.39
VI	248,273.52
VII	253,491.01
VIII	280,426.60
IX	334,049.36
X	203,504.74
XI	173,168.38
XII	311,039.69
XIII	265,187.03
ARMM	325,900.47





# Investment Categories



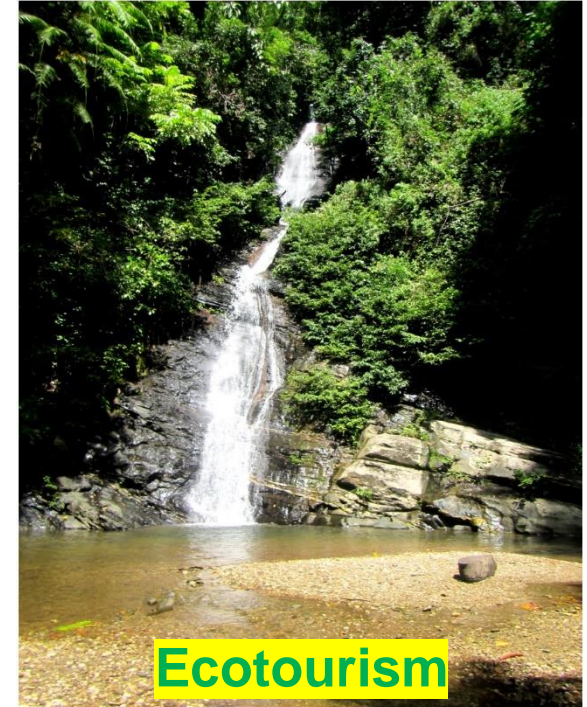
Coffee



Cacao



Rubber



Ecotourism



Roundwood/Timber



Bamboo



Rattan



Biomass



Fuelwood



Cattle Grazing





# INVESTMENT OPPORTUNITIES AND BENEFITS





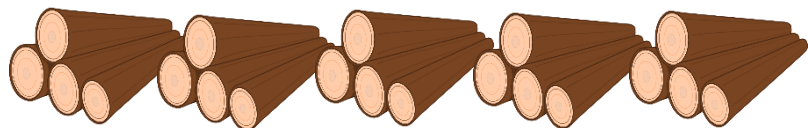
# Projected Contribution of GVA Forestry to AFF and total GDP

	2017	2028
GVA Forestry to AFF	0.15%	1.66%
GVA Forestry to GDP	0.01%	0.14%

**1.4 Million Ha in 2028**



**12 Million cu.m log products**



**157,000 jobs generated**



**Lumber, Plywood, Furniture, etc.**



**Manufacturing**

**2.14%**  
to GVA

**GDP**

**0.52%**

**288,000 jobs generated**



**Bamboo, Coffee, Cacao, Rubber**



**AFF Sector**

**0.08%**

**7,837 jobs generated**



# Tree Plantation for Round Wood and Wood-based Products Production

- Philippines is net importer of wood & wood-based products
- **Annual Average Supply:** 4.58M cu m
- **Annual Consumption:** 6.06M cu m
- **Annual Supply Gap:** 1.48M cu m

## Forestry Master Plan (2016) Projections

Consumption years	Plantation development years	Required total plantation area
CY 2026	CY 2016	29,648 ha
CY 2027-2032	CY 2017-2022	598,315 ha
CY 2033-2038	CY 2023-2028	811,335 ha
<b>TOTAL</b>		<b>1,439,298 ha</b>





# Tree Plantation for Round Wood & Wood-based Products

## Financial Analysis of 1-ha Round Wood Plantation

PV of Benefits per Ha	Php 100,290.22
PV of Costs per Ha	Php 37,208.48
NPV per Ha	Php 63,081.73
Benefit-Cost Ratio (BCR)	2.70
Internal Rate of Return (IRR)	43%
Return on Investment (ROI)	1.70
Payback Period	Year 10



# Woody Biomass

- Biomass plants importing wood chips from Indonesia, Malaysia, Thailand & Singapore
- High demand for pellets in Japan, Korea, North America, & the European Union mostly for heating & industrial uses





# Woody Biomass

Financial Analysis of 1-ha Woody Biomass Plantation	
PV of Benefits per Ha	Php 38,597.20
PV of Costs per Ha	Php 23,031.30
NPV per Ha	Php 15,565.90
Benefit-Cost Ratio (BCR)	1.68
Internal Rate of Return (IRR)	42%
Return on Investment (ROI)	0.68
Payback Period	year 4





## Fuelwood

- High demand for fuelwood & charcoal
- Potential fuelwood plantations can be established in CBFMA areas or in untenured forestlands
- 2016 PMPCRFD estimates **total annual woodfuel consumption of 46-70M cu m/year**

### Forestry Master Plan (2016) Projections

Consumption years	Plantation development years	Required total plantation area
CY 2019	CY 2016	12,575 ha
CY 2020-2025	CY 2017-2022	125,683 ha
CY 2026-2031	CY 2023-2028	158,977 ha



# Fuelwood

Financial Analysis of 1-ha Fuelwood Plantation	
PV of Benefits per Ha	Php 59,661.21
PV of Costs per Ha	Php 36,826.74
NPV per Ha	Php 22,834.47
Benefit-Costs Ratio (BCR)	1.62
Internal Rate of Return (IRR)	40%
Return on Investment (ROI)	0.62
Payback Period	year 5





# Bamboo

**Total Annual Demand for Bamboo:**

**85.81-100M culms/year**

- **Pulp and paper industry:** 34M culms/year
- **Biomass energy plants:** 51M culms/year for bamboo chips and pellets
- **Furniture industry:** 8.7M culms/year
- **Banana props and fish pens/cages:** 10.5M culms/year

*- Philippine Bamboo Industry Development Roadmap*

**Furniture Industry Centers**

Cebu, Metro Manila, Pampanga



# Bamboo

Financial Analysis of 1-ha Bamboo Plantation	
PV of Benefits per Ha	Php 154,750.88
PV of Costs per Ha	Php 116,233.67
NPV per Ha	Php 38,517.22
Benefit-Cost Ratio (BCR)	1.33
Internal Rate of Return (IRR)	24%
Return on Investment (ROI)	0.33
Payback Period	Year 6



# Rattan

- Philippines ranks as **TOP 5** exporter of rattan furniture, basketworks & handicrafts
- Export value of rattan valued at **USD 36M** or about **2% of world exports** in 2012 (INBAR 2012)

## Furniture Industry Centers

Region 7, Region 3, National Capital Region

## Cebu Furniture Makers

Supplied by Visayas (Samar) & Mindanao

## Pampanga & Manila Furniture Makers

Supplied by Region 3 & Other Regions in Luzon





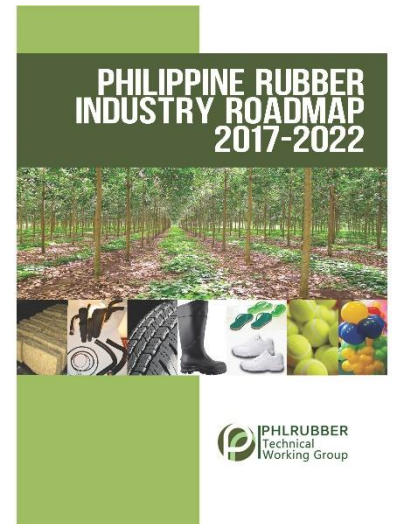
# Rattan

Financial Analysis of 1-ha Rattan Plantation	
PV of Benefits per Ha	Php 64,597.95
PV of Costs per Ha	Php 34,621.53
NPV per Ha	Php 29,976.42
Benefit-Cost Ratio (BCR)	1.87
Internal Rate of Return (IRR)	23%
Return on Investment (ROI)	0.87
Payback Period	Year 12



# Rubber

- Philippines is net exporter of natural rubber to Malaysia, China, Hong Kong, Taiwan, Vietnam, Singapore
- Export of natural rubber increasing in volume from **38,164 MT** valued at **USD 55.5M** in **2010** to **88,606 MT** valued at **USD 78.56M** in **2014**

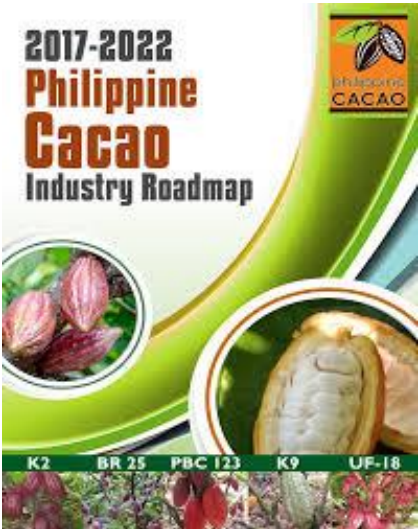




# Rubber

Financial Analysis of 1-ha Rubber Plantation	
PV of Benefits per Ha	Php 112,444.82
PV of Costs per Ha	Php 29,200.31
NPV per Ha	Php 83,244.51
Benefit-Cost Ratio (BCR)	3.85
Internal Rate of Return (IRR)	36%
Return on Investment (ROI)	2.85
Payback Period	Year 4





## Cacao

- Philippines is net importer of cacao products
- The country's share to global cacao production is less than 1%
- **Total imports amounted to USD 101.63M while total exports were valued at USD 24.3M in 2014**



# Cacao

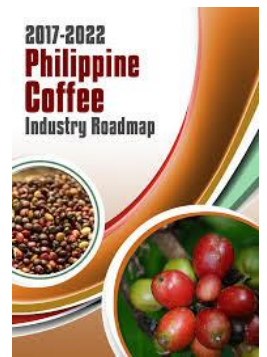
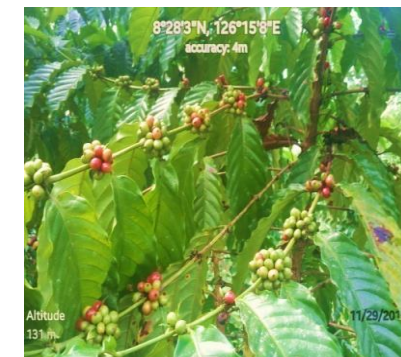
## Financial Analysis of 1-ha Cacao Plantation

PV of Benefits per Ha	Php 256,132.27
PV of Costs per Ha	Php 194,729.78
NPV per Ha	Php 61,402.49
Benefit-Cost Ratio (BCR)	1.32
Internal Rate of Return (IRR)	32%
Return on Investment (ROI)	0.32
Payback Period	Year 2



# Coffee

- Philippines is net importer of coffee
- Coffee imports: **75,000 to 100,000 MT annually** from **Vietnam and Indonesia** valued **Php 7-10B**
- Average local production: **25,000 MT/year**
- Average Local demand: **100,000 MT/year**





# Coffee

Financial Analysis of 1-ha Coffee Plantation	
PV of Benefits per Ha	Php 128,357.52
PV of Costs per Ha	Php 92,938.68
NPV per Ha	Php 35,418.85
Benefit-Cost Ratio (BCR)	1.38
Internal Rate of Return (IRR)	42%
Return on Investment (ROI)	0.38
Payback Period	Year 4



# Cattle Grazing

- Commercial cattle production in ranches & grazing lands only 6.4% vs. backyard production 93.6%
- Philippines importing beef from Australia, New Zealand, India, USA & Brazil
- Total import volume **105,029.55 MT valued at USD 344M in 2014**
- Increasing demand for beef imports driven by growth of food service sector (fast food chains) & local consumption of canned beef & hotdogs



The forestry master plan targets 111,063 ha grazing land area management by 2028 ~ 50% of total commercial grazing land requirement

Year	Total commercial grazing land requirement (ha)	Target for grazing land area management under FLGMA (ha)
2016	173,914	88,609
2022	198,405	99,203
2028	222,125	111,063



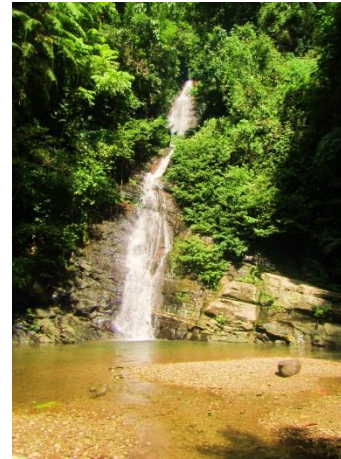
# Cattle Grazing

Financial Analysis of 1-ha of Cattle Grazing Land	
PV of Benefits per Ha	Php 75,526.88
PV of Costs per Ha	Php 41,885.98
NPV per Ha	Php 33,640.90
Benefit-Cost Ratio (BCR)	1.80
Internal Rate of Return (IRR)	34%
Return on Investment (ROI)	0.80
Payback Period	Year 2



# Ecotourism Outside NIPAS Areas

- Inbound tourism expenditure grew by **43.9%** in **2017**, amounting to **Php 448.6 billion** from **Php 311.7 billion** in **2016**.
- Domestic tourism expenditure grew by **25.42%** from **PhP 2,108.2 billion** in **2016** to **PHP 2,644.8 billion** in **2017**.



Tourism Expenditure (In Million PhP)		
Year	Inbound	Domestic
2013	225,300	1,136,995
2014	276,894	1,403,813
2015	306,489	1,770,749
2016	311,698	2,108,216
2017	448,561	2,644,833

*Philippine Tourism Satellite Accounts (PTSA), Philippine Statistics Authority*

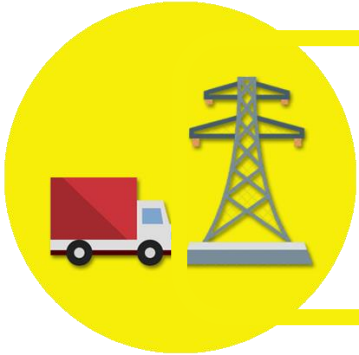


# Ecotourism Outside NIPAS Areas

Financial Analysis of 1-ha of Ecotourism Area	
PV of Benefits per Ha	Php 57,865.71
PV of Costs per Ha	Php 31,223.85
NPV per Ha	Php 26,641.85
Benefit-Cost Ratio (BCR)	1.85
Internal Rate of Return (IRR)	47%
Return on Investment (ROI)	0.85
Payback Period	Year 2



# Challenges



Logistical and  
electricity costs



Supply of quality raw  
materials



Information on  
forestry investments



Policies on forest-  
based industries



Accessibility of farm  
to market roads



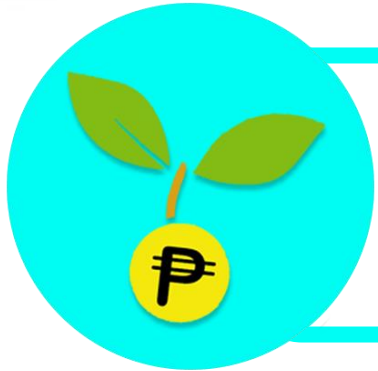
Investment  
requirements





# FIRM STRATEGIC COMPONENTS



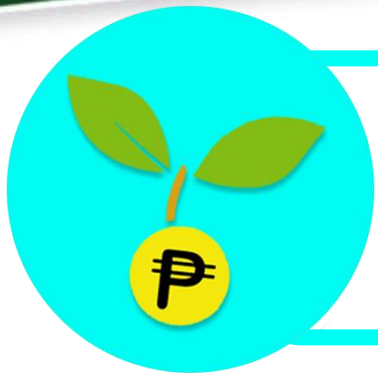


## Provision of Enabling Policy and Investor-friendly Environment

- **Database management of investment related information**
  - Registry/compendium of potential areas
  - Inventory of existing plantations with tenured holders by species, age, etc
  - Stocktaking on Woody Biomass and Fuelwood





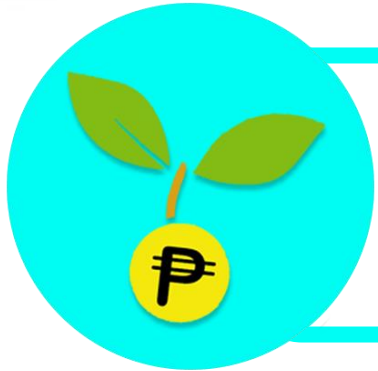


# Provision of Enabling Policy and Investor-friendly Environment

- **Policy Formulation/Revision**

- Forestry Investment Portfolio Approach (FIPA)
- Harmonize investment-related policies/MOAs-MOU formulation
- Collaboration (including streamlining/access to incentives) among DENR, DTI (BOI, BoC), DILG-LGUs, DOT, DOE, NCIP, DA, DPWH, etc.
- Advocacy for Passage of the Sustainable Forest Management (SFM) Bill





## Provision of Enabling Policy and Investor-friendly Environment

- **Technology Updates/Research and Product Development**
  - Carrying capacity of ecotourism sites outside NIPAs areas
  - Commodity-specific research activities including market demand







# Institutionalization of Forestry Investment Support Mechanism

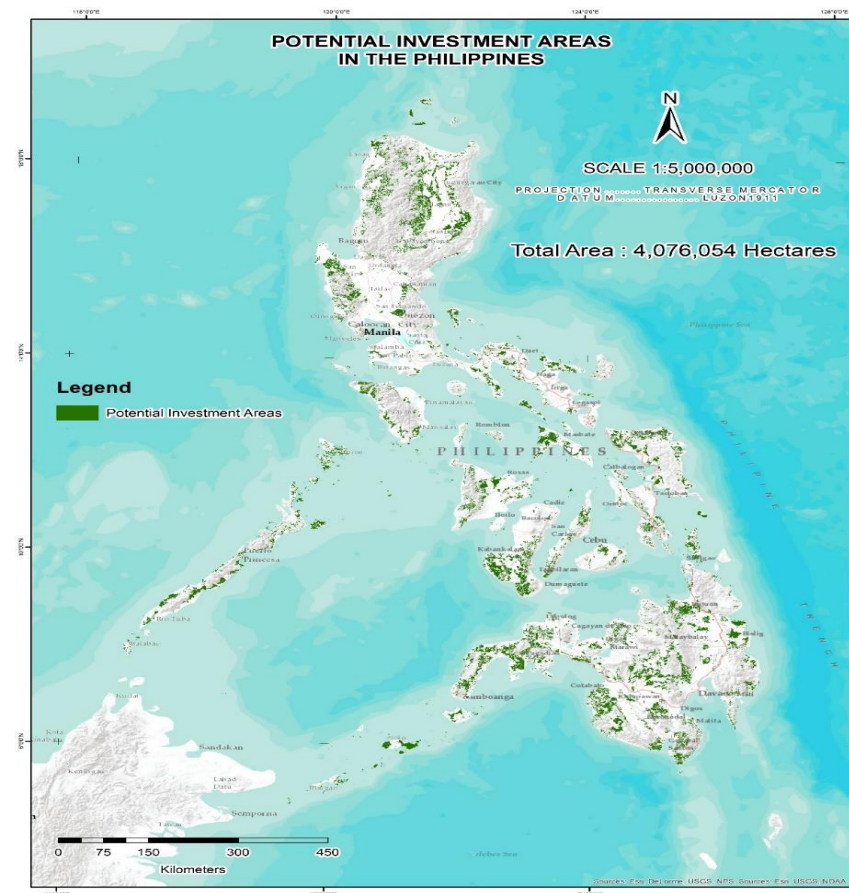
- Creation of Forestry Investment Support Unit (FISU)/  
TWG on Forestry Investments at the Regional Offices
- Regional Investment Action Plan
- Capacity building of DENR Field Offices





# Identification, Mapping, and Assessment of Potential Investment Areas

- Survey, mapping, assessment and planning







# Provision of Secure Tenure and Partnership Agreements

- Review, evaluation of investment packages
- Issuance of tenure and other management arrangements





# Development and Management of Investment Areas

Development of forestry investment packages and implementation:

- Commercial tree plantations
- Fuelwood/ biomass energy plantations
- Non-timber and HVC plantations
- Cattle Grazing
- Ecotourism sites outside NIPAS areas







# Strengthening and Sustaining Partnership

- Capacity building on entrepreneurship and enterprise development
- Monitoring & Evaluation and Feedback Mechanism
- Technical assistance to tenure holders and private land owners





# Marketing and Communication Strategies

- Development of Communication Materials
- Direct Promotion
- Event/Tradeshow Marketing
- Media and Public Relations Marketing
- Social Media Marketing
- Participation in Local and International Conferences/  
Trade and Exhibits





An aerial photograph of a vast, dense forest covering a hillside. The trees are predominantly green, with some taller, thinner trees visible through the canopy. The text "Together, We Grow! Invest Now!" is overlaid in large, white, bold letters in the center of the image.

**Together, We Grow!**  
**Invest Now!**

Zamboanga del Norte, 2018





**THANK YOU**

