

# WATERSHED MANAGEMENT

Investments and Financing Mechanisms in  
Forest Environmental Services

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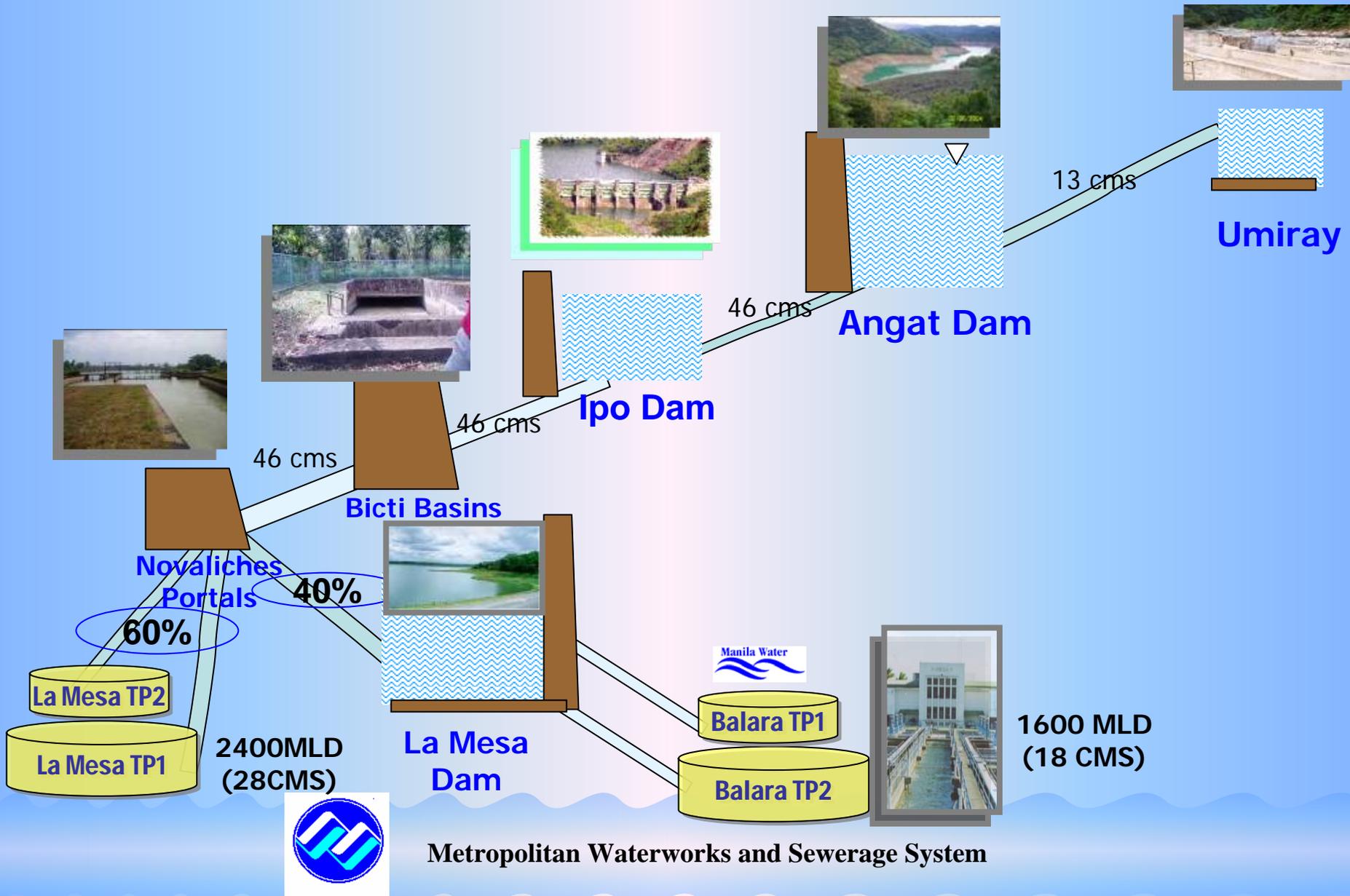
**Metropolitan Waterworks and Sewerage System**

# Outline

- Critical Watersheds
- Common Problems
- Impacts
- Strategy
- Framework
- La Mesa Watershed
- Ipo Watershed
- Moving Forward



# MWSS Raw Water Flow Diagram



# CRITICAL WATERSHEDS

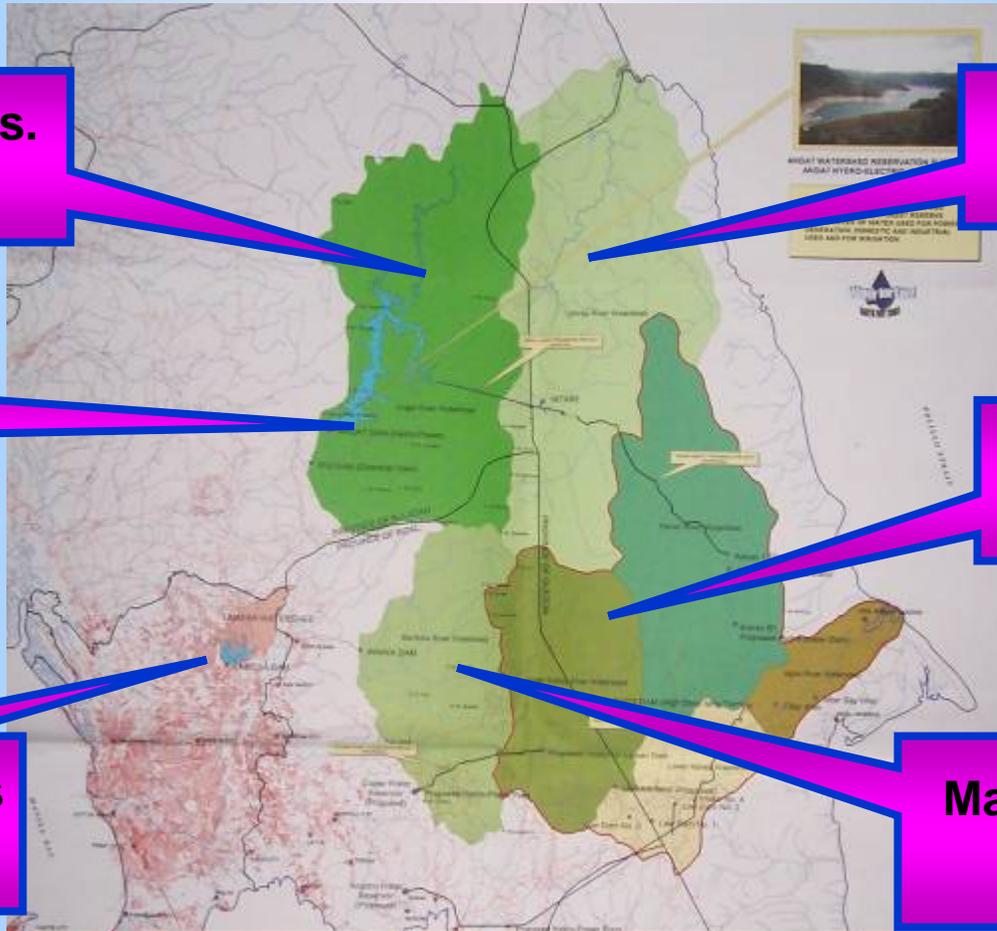
Watershed	Area (Has)	Est. Area of Deforestation
Umiray	80,400	16,080
Angat	56,400	11,280
Ipo	6,600	4,620
La Mesa	2,600	130
Marikina	19,000	15,200
Laguna		



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Based from unconfirmed reports

# CRITICAL WATERSHEDS



# ISSUES & CONCERNS

- Kaingin (Slash and Burn)
- Illegal Poaching
- Influx of settlers
- Encroachment of Communities
- Illegal harvesting of forest products
- Overlapping policies and guide
- Funding



# *IMPACTS*

- Global warming
- Water quality problems
- Decreased inflow
- Soil erosion
- Sedimentation
- Flooding
- Damaged to lives and properties



# MAJOR CHALLENGES

- Relationship building with stakeholders
- Watershed importance awareness
- Commitment by stakeholders to effectively implement comprehensive watershed management programs



# FRAMEWORK

## V I S I O N

To be able to manage our watersheds involving all stakeholders in a manner that is beneficial to all, contributes to global biodiversity and ensure sustainability of raw water supply

# NGO PARTNERSHIP

G  
O  
A  
L  
S

•Water

Stakeholder  
involvement

S  
T  
R  
A  
T  
E  
G  
Y

•Forest

Building

•Forest Security

Reforestation

Community Organizing

•Forest Structures

•Structural Intervention

•Awareness Campaign

•Mapping/Data Base build up

•Ripraping

•Capacity Building

•Livelihood

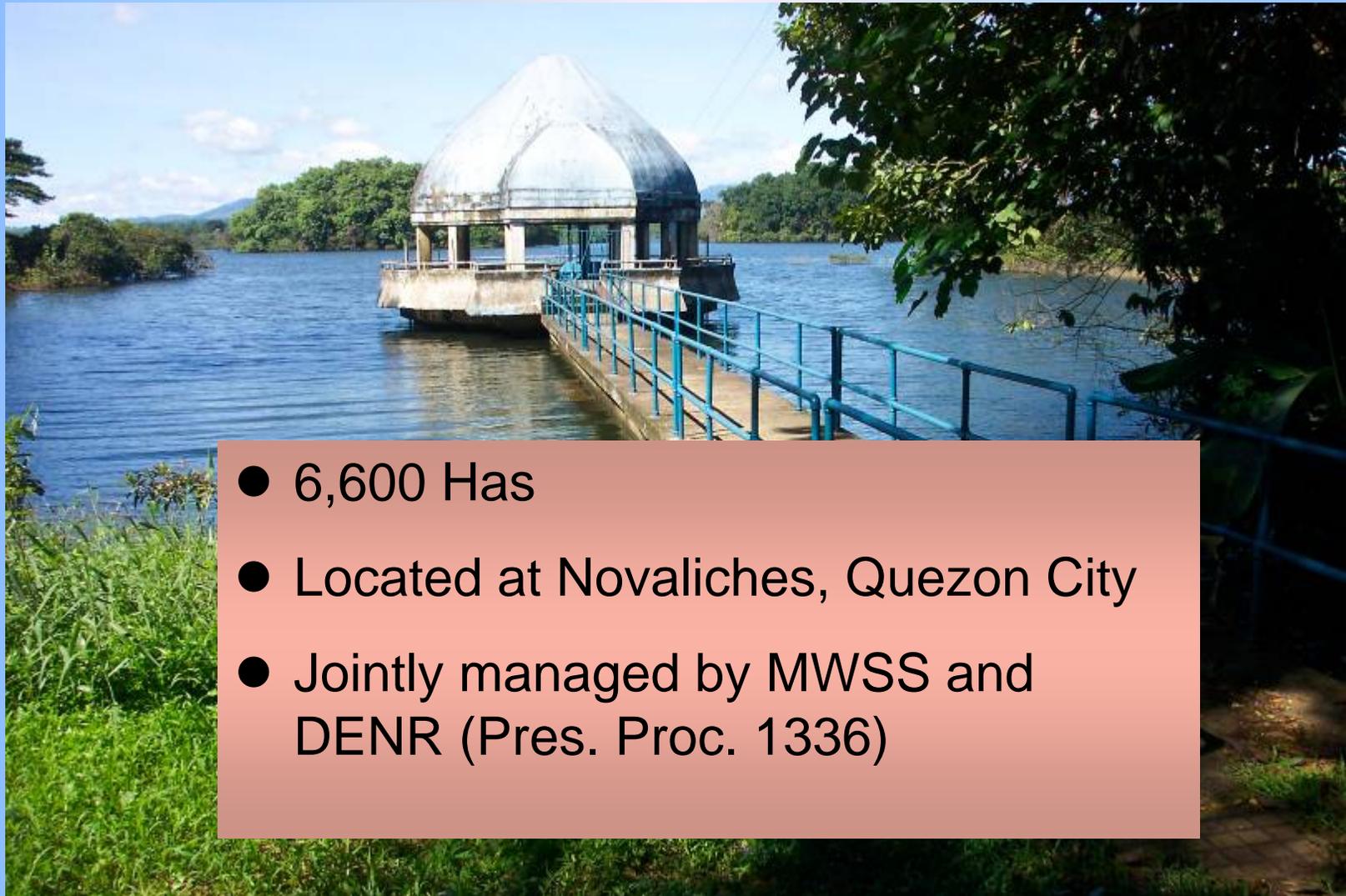
•Benchmarking

Data Base updating

R&D

Acquisition of Tools and Eqpmt.

# LA MESA WATERSHED



- 6,600 Has
- Located at Novaliches, Quezon City
- Jointly managed by MWSS and DENR (Pres. Proc. 1336)



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# SAVE THE LA MESA WATERSHED

- Partnership with Bantay Kalikasan, Concessionaires (MWCI& MWSI)
- Funding from donation coming from environmental and cause oriented groups
- Reforestation
- Protection
- Biodiversity (indigenous species)
- Maintenance and protection
- Education-research
- Recreation



# LA MESA WATERSHED PROJECTS

- Competent management
- Seedling production
- Nursery propagation
- Infrastructure
- 81 kinds of indigenous trees planted
- 95% survival



# LA MESA WATERSHED



## Model Watershed Area of the Philippines

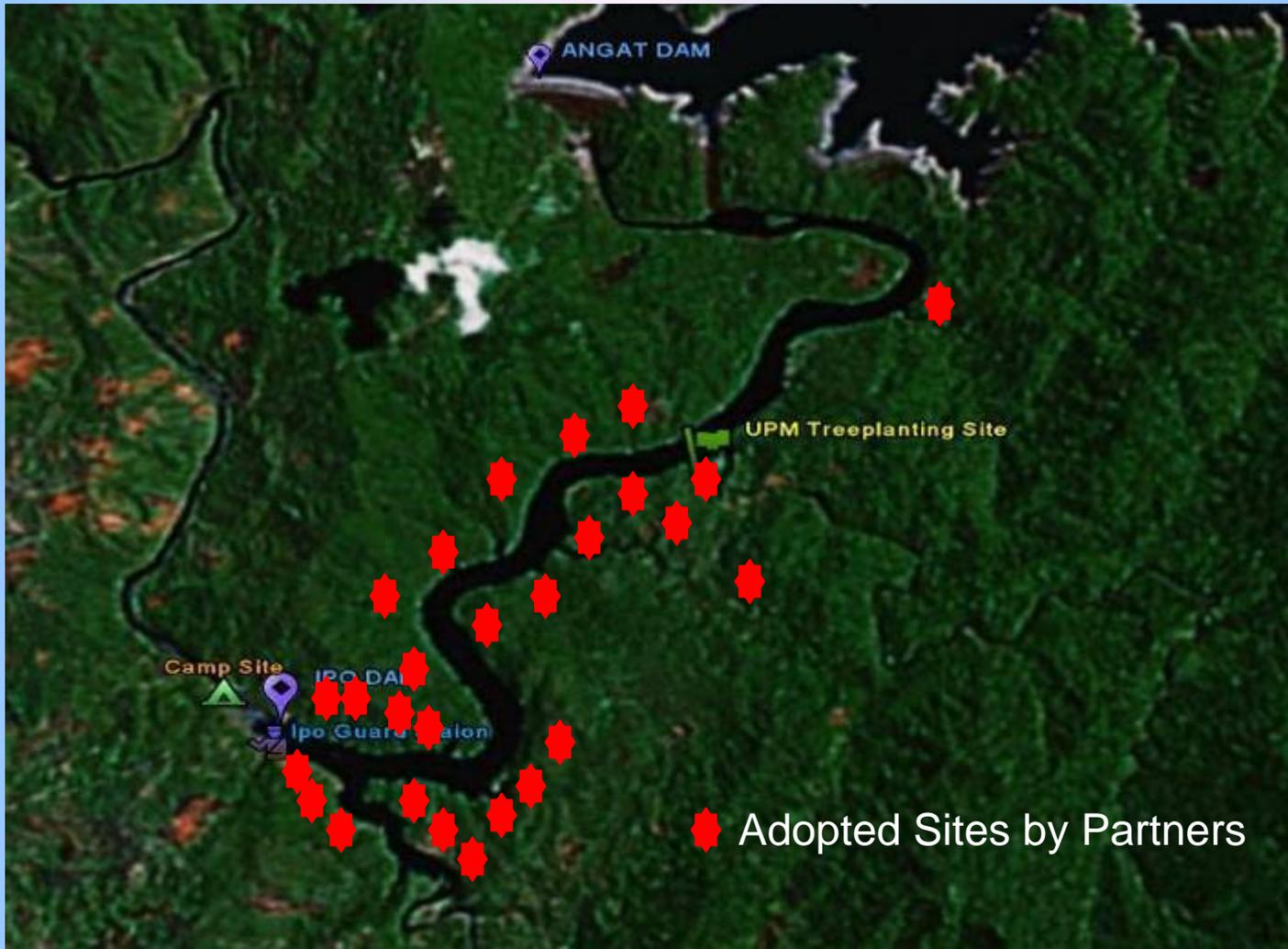


# IPO WATERSHED

- Located at Norzagaray & San Jose del Monte, Bulacan and Montalban, Rizal
- Co-Managed by MWSS & DENR (Pres. Proc. 391)
- With Amendments
  - \* Proclamation 1636 (2,923 Has)
  - \* CADT Awarded to Dumagats (1,817 Has)
  - \* CADT Area covered by Angat Pilot WFR (592 Has)
- Aprox. Area 6,600 Has.(Excl. amendment (3,677 Has)
- Forest cover-30-40%
- Estimated Inhabitants- 2,000



# ADOPT-A-WATERSHED PROJECT



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# ADOPT-A-WATERSHED PROJECT

1. AON (1 hectare)
2. Envirokonsult (5 hectares)
3. Waterkonsult (5 hectares)
4. Couples for Christ , Rotary Club of New Manila (2 hectares)
5. Claret School (10 hectares)
6. UP Mountaineers, Rotary Club Manila South, Royal ABC, Wyatt Watson, Penschoppe, Pisay 96 (10 hectares) & affiliated groups
7. Ayala Business Club (5 hectares)
8. Green Dream Philippines, Oakwood Boys Airsoft Team (5 hectares)
9. 503<sup>rd</sup> Battalion, ARG (12 hectares)
10. Technological Institute of the Philippines
11. Tau Gamma Phi (10 hectares)
12. Green Army/Tzu Chi Foundation ( 10 hectares)
13. San Agustin Center for Studies (2 hectares)
14. World Bank (2 hectares)
15. Hands On Manila (5 hectares)
16. PWU (1 hectare)
17. Learning Tree Growth Center (1 hectare)
18. PWWA (5 hectares)
19. Ms. Earth Foundation (3 hectares)
20. Ms. Cathy Untalan (2 hectares)
21. SMART/PLDT (30 hectares)



# HIGHLIGHTS

- Partnership with MWSS, Concessionaires (MWCI & MWSI), NGOs, academe
- Community based
- IPs (Dumagats) as forest tenders
- Livelihood Training
- Education campaign
- 80 hectares reforested
- 80% survival



# *MOVING FORWARD*

- Comprehensive watershed management program
- Funding and implementation by the Concessionaires
- Commissioning of SCAA for forest protection
- Prevent entry/relocate settlers
- Fence watershed areas
- Install security monitoring devices



# Thank You



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