



Food and Agriculture
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Forest landscape restoration through Assisted Natural Regeneration in the Carood Watershed Model Forest

Patrick Dugan, *Bagong Pag-asa Foundation*

Maria Paula Sarigumba, *FAO Regional Office for Asia and the Pacific*

Kenichi Shono, *FAO Regional Office for Asia and the Pacific*

Emma N. Castillo, *DENR-Forest Management Bureau, Philippines*

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Outline

Introduction

Project site

Project Goals

Interventions and implementation

Outcomes

Reflections

Challenges

Introduction

- A long history of forest restoration in the Philippines
- High momentum for forest landscape restoration (FLR) - achieving both social and ecological objectives
- Assisted natural regeneration (ANR) is employed as a cost-effective approach in FLR
- Carood watershed is an inspiring case which DENR-FMB recommended to FAO for support ---to propel forest landscape restoration through ANR



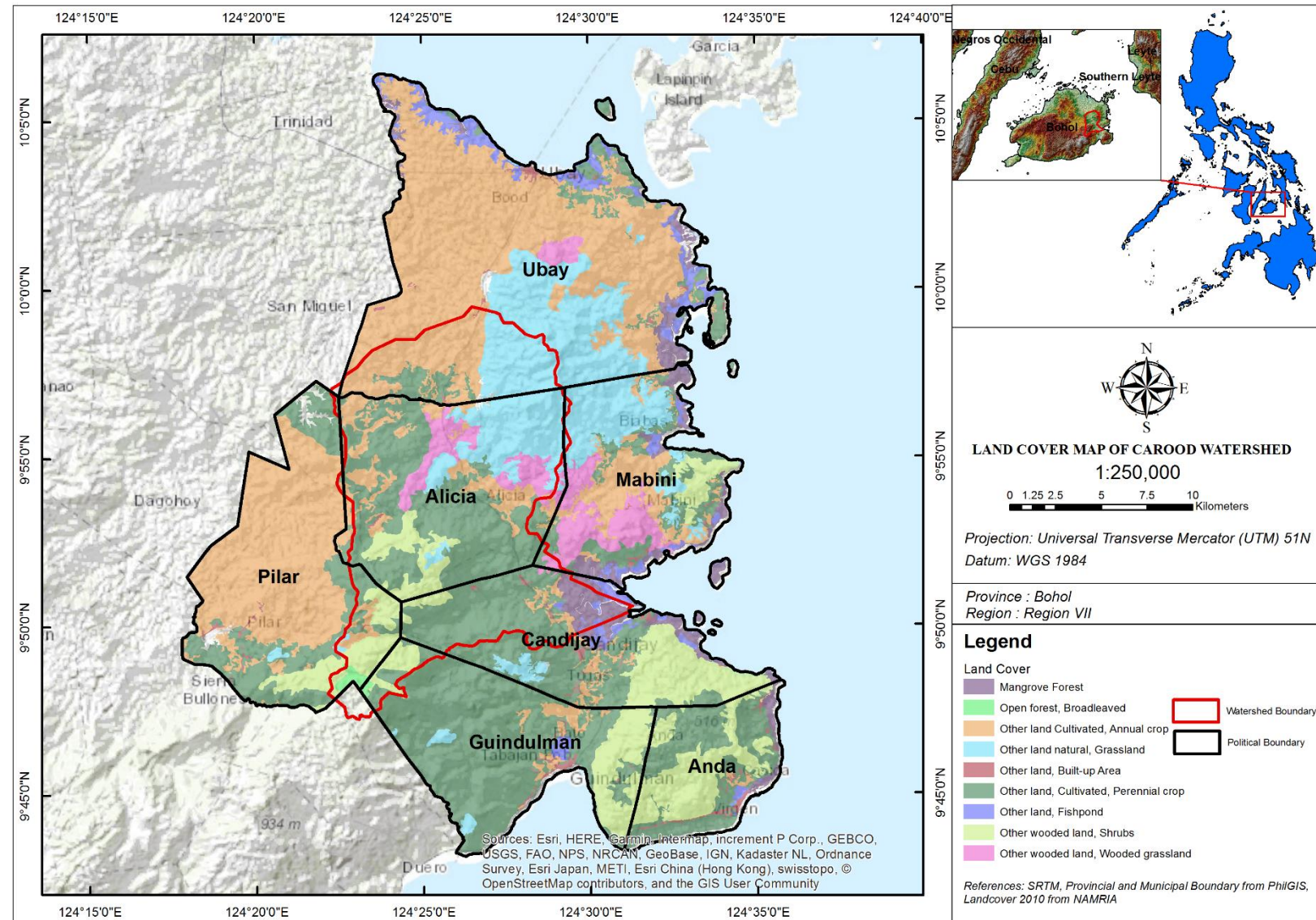
Carood Watershed

- 5th largest of the 11 watersheds in the Bohol province, Visayas
- total area of 21 725 hectares by watershed boundaries
- 56% agricultural land
34% grasslands and shrubs
5% natural forest
5% forest plantation



Carood Watershed

- Municipalities of Anda, Alicia, Candijay, Guindulman, Mabini, Pilar and Ubay
- The boundaries cover 6 municipalities but the Council included municipality of Anda which is indirectly associated with siltation issues
- Population of 230,000 (2015)

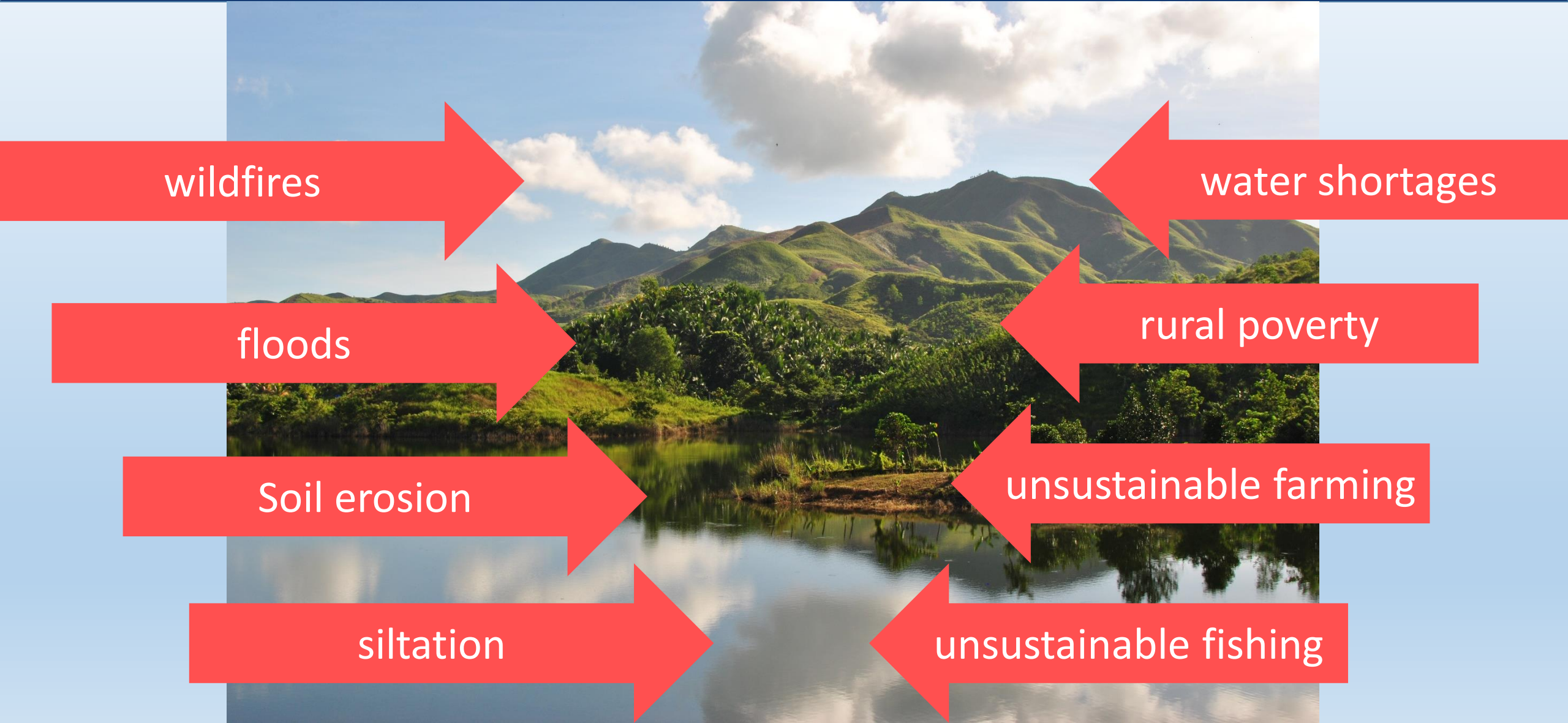


Carood Watershed

- **FAO's FLR Mechanism** is initiative to support countries in implementing and scaling-up FLR initiatives
- Identified as a pilot site in 2015 for the FLR Mechanism within the **Philippine National Action Plan on Forest and Landscape Restoration**
- **Memorandum of agreement** was signed between FAO and the Council in September 2017

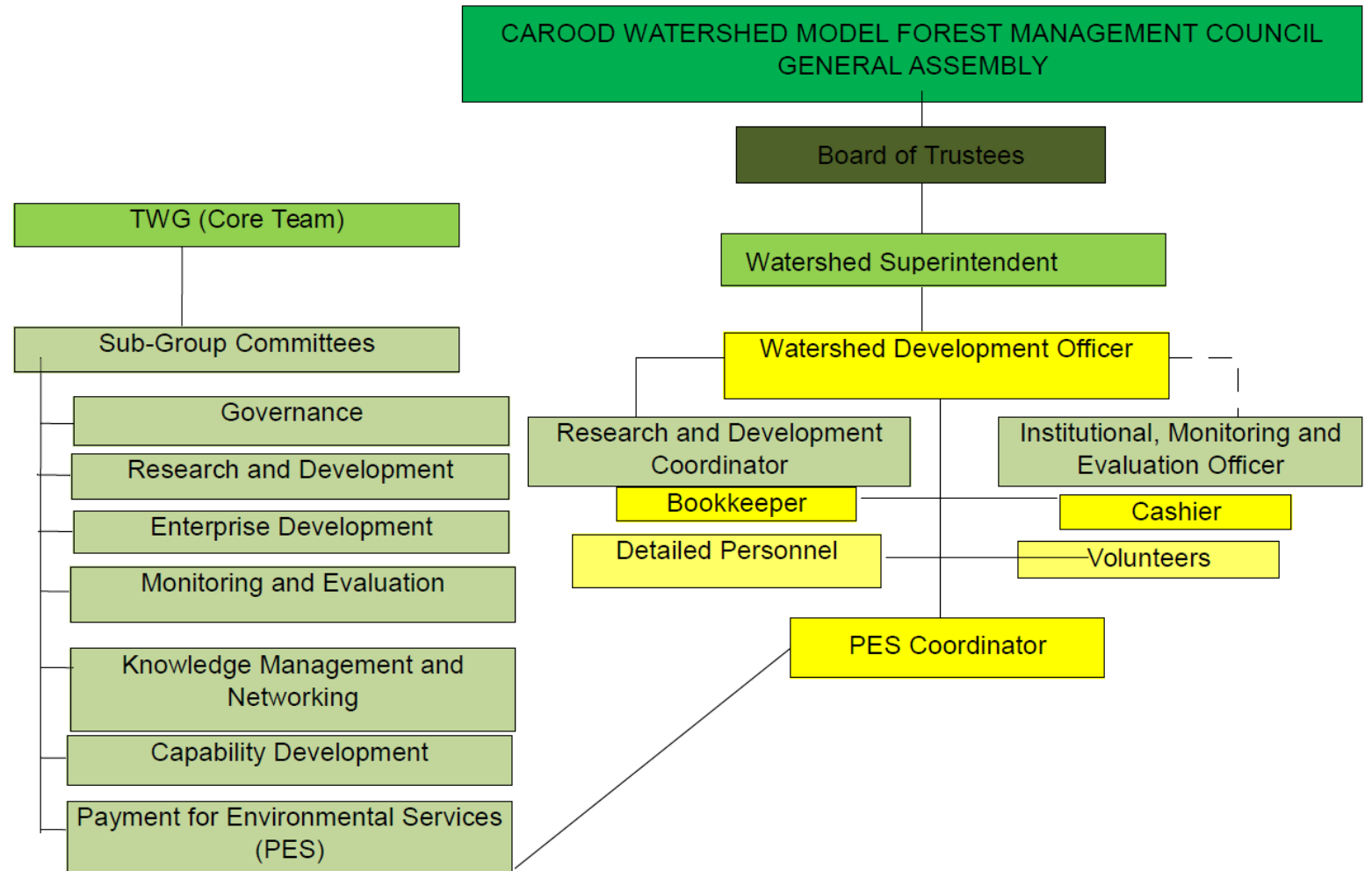


Challenges in the Carood Watershed



Carood Watershed Management Council

- Created through an Executive Order (No. 30) issued by the Bohol Governor in 2003
- Joined the International Model Forest Network (IMFN) in 2010
- Provides avenue for consensus-building and conflict resolution
- Addressing local people's needs is at the core of its objectives
- Stakeholders are committed to sustainable watershed management



Project Goals



ECOLOGICAL

- To improve ecological conditions of the watershed
- To sustain healthy supply of water



SOCIO-ECONOMIC

- To support the upland, lowland and coastal livelihood/enterprises
- To increase preparedness and resilience to climate change



INSTITUTIONAL

- To strengthen and sustain partnership among stakeholders
- To practice good governance and efficient use of resources

Interventions and implementation

Rehabilitation of degraded lands from upstream to downstream ecosystems

- Site development and maintenance for planting of crops (grass cutting, herbicide spraying, etc.)
- ANR in 50 ha of degraded forestlands
- Around 20 ha of firelines have been established to prevent and facilitate suppression of forest fires
- Incentivizing communities and families to conduct ANR activities by locating regenerants and pressing *Imperata cylindrica*

Local livelihood and subsistence provision

- *Agave sisalana* for fiber production and cash crops are planted along the firelines
- Enterprise development through fruit wine production
- Assistance to communities in raising native chicken and swine



Interventions and implementation

Establishment of pocket forests

- Model sites were established in selected municipalities wherein barangays are in charge of management

Infrastructure

- Small farm and earthdam reservoirs
- Access roads and trails

Training

- Training on watershed profiling, FLR, soil-water conservation, ANR, forest fire protection and control, and livelihood and market opportunities in FLR

Public awareness campaigns

- Educational tours and site visits
- Brochure and leaflets
- Radio broadcast

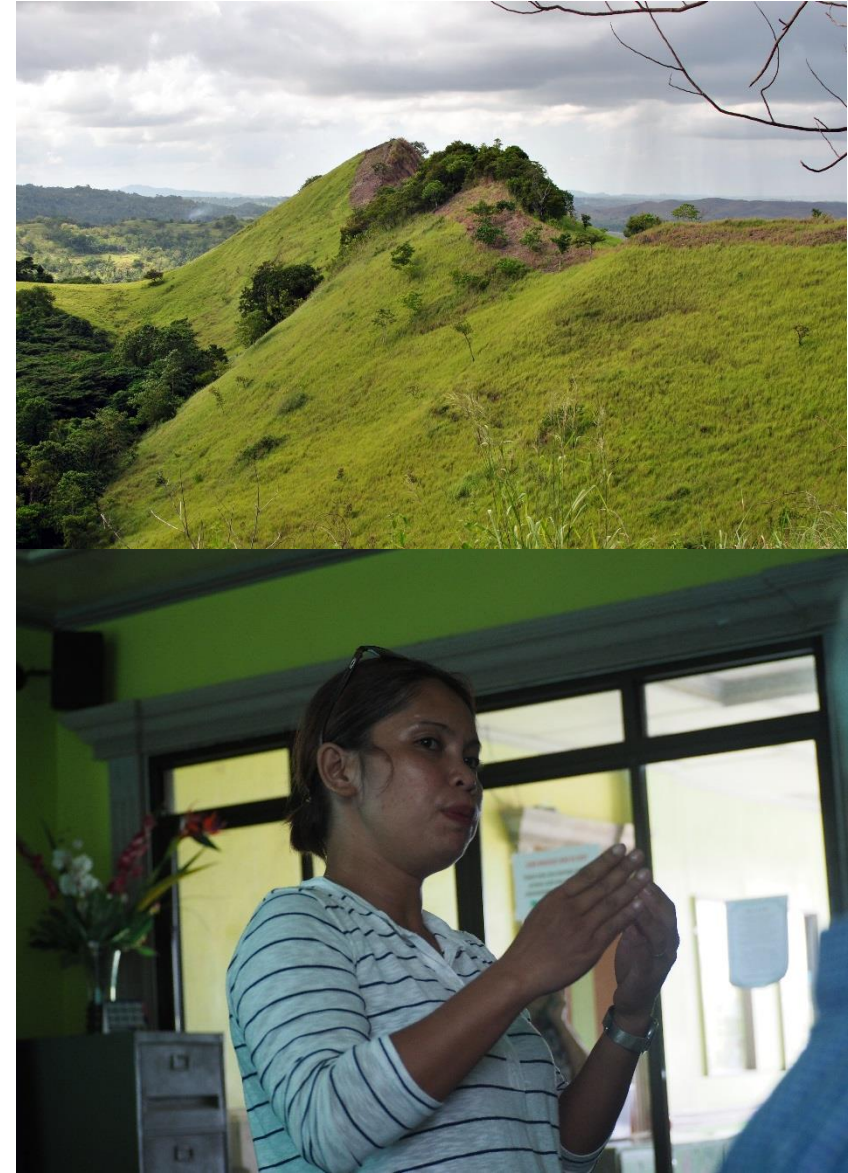
Linkages to the National Greening Program

- Linking restoration activities to NGP targets
- Initiated planting coffee in some areas



Outcomes

- *Established a strong connection*
- *Amplified local support*
- *Explored new opportunities*
- *Provided documentation*
- *Complemented efforts* to the national reforestation targets (NGP)



Reflections

- Restoration is a long process.
- Addressing local demands
- Assisted natural regeneration (ANR) is a **cost-effective approach**
- Monitoring and site development



Challenges

Keeping the momentum alive

Perils of sustainability

Untapped market opportunities



Thank you!

duganpcdsr@yahoo.com

Maria.Sarigumba@fao.org

Kenichi.Shono@fao.org

emmancastillo2014@gmail.com

www.fao.org/in-action/forest-landscape-restoration-mechanism

