



REGIONAL TRAINING WORKSHOP

MANGROVE ECOSYSTEMS IN THE GUIANAS

6-10 May 2019
Coronie, SURINAME



PHOTOGRAPHIC REPORT



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TRAINING WORKSHOP

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UN Women
UNICEF
UNEP
GIZ
Sustainable Development Goals

INTRODUCTION



WWF Guianas together with Stichting SORTS Suriname and the Mangrove Action Project (MAP) organized a five day Guianas Regional Mangrove Ecosystems Training Workshop in Coronie Suriname from 6-10 May 2019. Over 25 participants from Suriname, Guyana and French Guyana attended the training representing NGOs, Government, Universities, local communities and entrepreneurs, CSOs, the private sector and more. The training programme consisted of a mix of both theoretical and practical field sessions led by subject experts from the region and other countries. Working on conserving and restoring valuable mangrove ecosystems in the Guianas, WWF recognized the need for more hands-on practical training on community-based ecological mangrove restoration, management and conservation approaches amongst stakeholders. It also recognized the need to share data and exchange information amongst the 3 territories in the Guianas and to build a network among key-stakeholders for collaboration, communication and exchange. Training topics included coastal dynamics, mangrove functions and values, ecology, community-based ecological mangrove restoration, and livelihoods. Field sites included the mangroves in Coronie and at Weg naar Zee. Funding came from the SRJS programme (WWF NL and IUCN NL).

INTRODUCTION

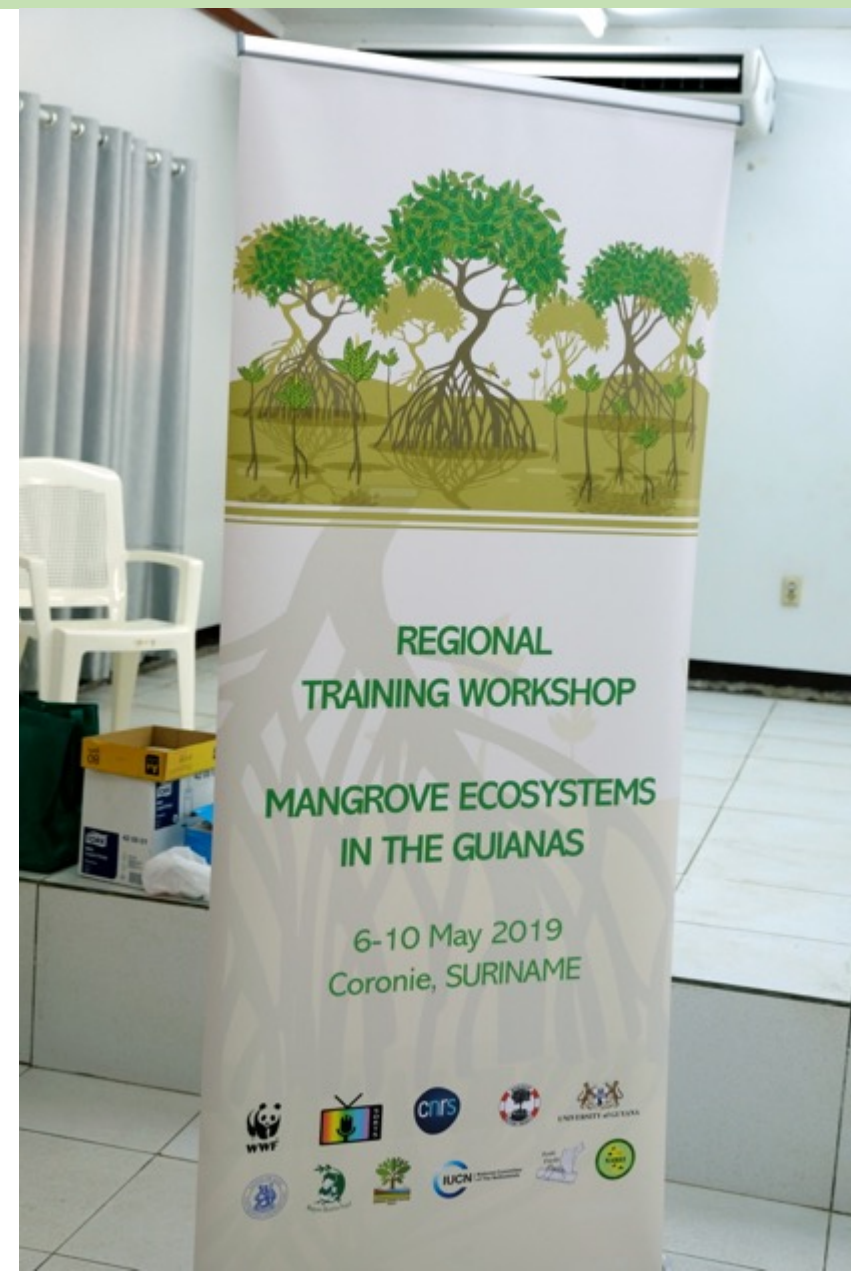
The OBJECTIVES of the training workshop are:

- Sharing of data and exchanging of information amongst the three territories in the Guianas
- Improved understanding on coastal dynamics in the Guianas
- Overview of mangrove ecosystems and their importance in the Guianas
- Overview of restoration initiatives in the Guianas
- Overview of mangrove based livelihood options and initiatives from the Guianas

The expected OUTCOMES include:

- Exchange of relevant and reliable information and data
- An overview of the national and regional initiatives on conserving and restoring mangroves
- Networking among key-stakeholders for collaboration, communication and exchange

This workshop was organized with the support of IUCN NL, WWF NL and the Dutch Ministry of Foreign Affairs, strategic partners in the program 'Shared Resources Joint Solutions (SRJS)'.



MAIN TRAINERS



MARTIN KEELEY
Cayman Brac University
Cayman islands



DOMINIC WODEHOUSE
Bangor University
UK



SIEUW NAIPAL
ADEK University
Suriname



KENE MOSELEY
NAREI
Guyana



OWEN BOVELL
University of Guyana
Guyana



LUCILE DUDOIGNON
Koté Forêt
French Guiana



EDWARD ANTHONY
CNRS
French Guiana



LOES TRUSTFULL
Stichting SORTS
Suriname



HANNEKE VAN LAVIEREN
WWF Guianas
Suriname

PROGRAM

DAY 1 (6 May 2019)

9:00-12:30 AM: Mangrove Ecosystems – Introduction

Opening (10 mins)	Hanneke and Loes
Introductions (10 mins)	all
What are Mangroves (20 mins)	Martin Keeley
Occurrence, distribution, diversity, status (global/regional) (20 Mins)	Hanneke Van Lavieren
Mangrove Functions and Values (20 Mins)	Martin Keeley
Mangroves in Suriname (20 mins)	Jasper Feyen & Gianni Wip
Mangroves in Guyana (20 mins)	Owen Bovell
Mangroves in French Guyana (20 Mins)	Lucile Dudoignon
Mangrove-based livelihoods – Case studies French Guiana	

12:30 -13:30 PM LUNCH

13.30 AM – 15:30 PM Coastal dynamics in the Guianas

Dynamic Coastlines in the Guianas (30 mins)	Edward Anthony
Interaction of Mangroves, Coastal Hydrodynamics, and Morphodynamics Along the Coastal Fringes of the Guianas (30 mins)	Edward Anthony
MangroMud project Case study *(mangrove along muddy coasts) (20 mins)	Guest speaker - Ginny Bijnaar (SU)
Discussions and short documentary films	

DAY 2 (7 May 2019)

8:30 AM – 12:00 PM: Mangrove Restoration

<i>Recap and Discussion from Day 2</i>	
Failed planting examples from around the world	Dominic Wodehouse
Biology of mangroves (relevant to restoration)	Dominic Wodehouse
The importance of hydrology	Dominic Wodehouse
An introduction into Community-based Ecological Mangrove Restoration (CBEMR) Relevant Mangrove Ecology for CBEMR	Dominic Wodehouse
The situation in Coronie and past research	Sieuw Naipal
Briefing for field trip	Sieuw Naipal, Dominic Wodehouse

12:00 -13:00 PM LUNCH

13:00- 16:00 pm Field session in Coronie

- <i>Field demonstration of erosion, natural regrowth of mangroves and successful and unsuccessful mangrove restoration in degraded areas</i>	Dominic Wodehouse Martin Keeley Kene Moseley
- <i>Visit of the dyke</i>	Sieuw Naipal Edward Anthony

PROGRAM

DAY 3 (8 MAY 2019)	
8:30 – 12:00 AM Community Based Ecological Mangrove Restoration	
<i>Recap and Discussion from Day 2</i>	
Species zoning	Dominic Wodehouse
Measuring spot heights relative to sea level and tidal inundation	Dominic Wodehouse
Studying a natural mangrove reference site	Dominic Wodehouse
Mapping, planning, discussions with the community and agreements	Dominic Wodehouse
Implementation (Technical and Social)	Dominic Wodehouse
Monitoring and Evaluation of restoration initiatives	Dominic Wodehouse
12:00 -13:00 PM LUNCH	
13:00 – 15:30 PM Case Studies from the region	
Green and Grey Approaches Introduction (25 mins)	Hanneke Van Lavieren
Restoring Mangroves in Suriname: Building with Nature (30 Mins)	Sieuw Naipal
Restoration experiences from Guyana (30 mins)	Kene Moseley and Owen Bovell
Briefing for field trip next day	Sieuw Naipal

DAY 4 (9 May 2019)	
10:30 AM – 15:30 PM: Field Visit Weg naar Zee (WNZ)	
<ul style="list-style-type: none"> - Showcase coastal erosion - Field demonstration BwN and restoration - Challenges of restoration on dynamic coast - Visit community - Green and Gray solution (discuss the new dyke) - Water quality measurements - Exercises 	Sieuw Naipal Dominic Wodehouse Edward Anthony

DAY 5 (10 May 2019)	
8:30 – 12:00 AM Mangrove-based Livelihoods	
<i>Recap and Discussion from Day 2</i>	
Mangrove Ecotourism as community-based approach	Martin Keeley
Tour guides & eco - tourism -- Lessons from Suriname	Guest Speaker: UTGS Martin Keeley Vincent Kenswill - Kronto
Case Studies Suriname and Guyana (beekeeping, tours, etc)	GY: Kene Moseley SU: Martin Keeley
Basic materials a such as boardwalks and signage	Martin Keeley and Loes Trustfull
Bird Watching	Martin Keeley Kene Moseley
Demonstration of Honey making and beekeepers Suriname	Guest Speaker: Fabian Esajas
Fishing and crabbing – mangrove crabs and other mangrove based fisheries	Martin Keeley
Mangrove Education Centres – Coronie as example	Loes Trustfull/UTGS
12:00 -13:00 PM LUNCH (Evaluation Sheets distributed)	
13:00 – 16:00 PM: Field Visit Coronie	
<ul style="list-style-type: none"> - Visit to the MECC - Demonstration of the Coronie Mangrove tour- with tour guides - Field Visit to Coronie Honey maker/bee keeper and ??? 	Loes Trustfull, Martin Keeley

DAY 1
06/05/2019

OPENING AND INTRODUCTIONS



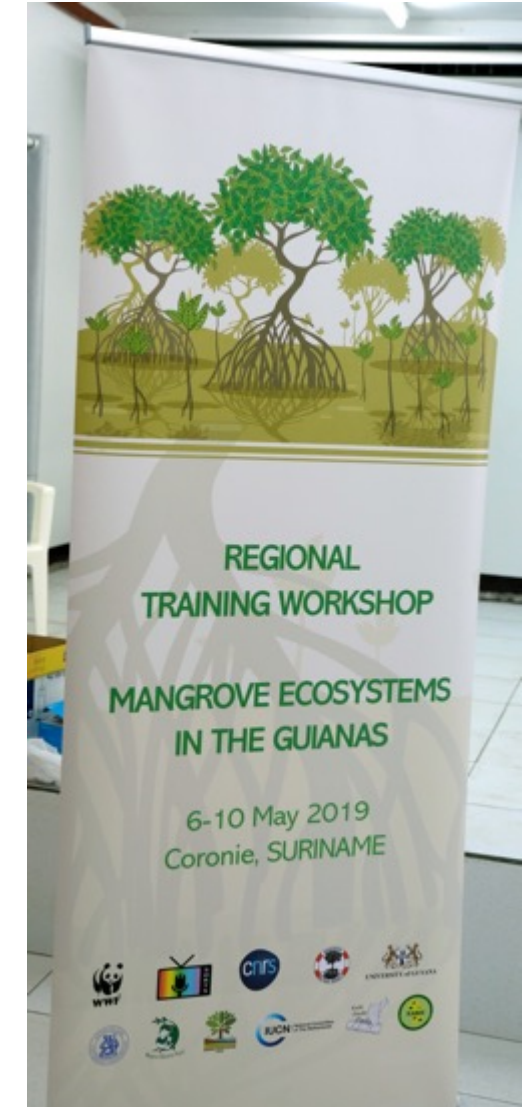
The workshop was being held at the citizens information center in Coronie



Participants were gifted T-shirts



Official opening and welcoming speech by the district commissioner of Coronie



DAY 1
06/05/2019

MANGROVE ECOSYSTEMS - INTRODUCTION



Global Occurrence, Distribution, Diversity and Status of Mangroves
Presentation by **Hanneke Van Lavieren**



Mangrove Education: instilling the value of mangroves in current and future generations
Presentation by **Martin Keeley**



Mangrove functions and values
Presentation by **Martin Keeley**



National mangrove forest biodiversity monitoring program for Suriname
Presentation by **Jasper Feyen & Gianni Wip**



Mangroves in Guyana: Importance, threats, actions
Presentation by **Owen Bovell**



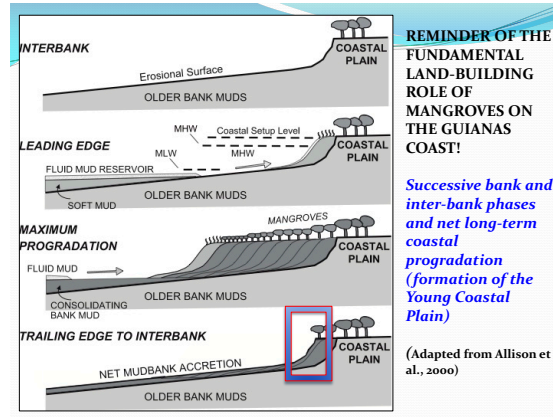
*Mangroves of French Guiana
Mangrove-based livelihoods – Case studies
French Guiana*
Presentations by **Lucile Dudoignon**

DAY 1
06/05/2019

COSTAL DYNAMICS IN THE GUIANAS



Dynamic Coastlines in the Guianas
Presentation by **Edward Anthony**



Interaction of Mangroves, Coastal Hydrodynamics and Morphodynamics along the Coastal Fringes of the Guianas
Presentation by **Edward Anthony**



Mangroves and Mud (MangroMud): Monitoring and Modelling Coastal Dynamics in Suriname to Mitigate the Effects of Climate Change
Presentation by **Ginny Bijnaar**



Local Community Mangrove Ecosystem Services on the North Brazil Shelf
Presentation by **Tibor Vegh**



DAY 2
07/05/2019

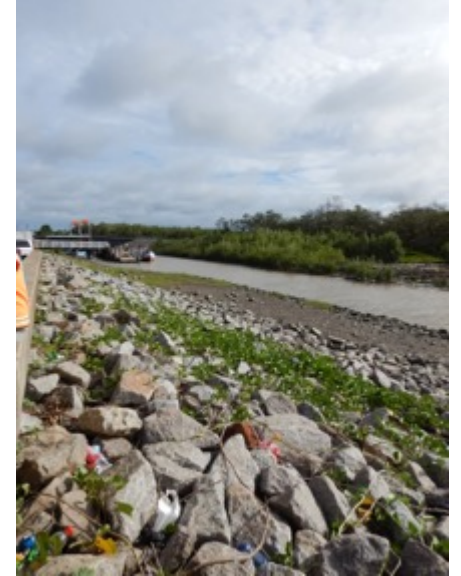
MANGROVE RESTORATION

Dominic Wodehouse & Sieuw Naipal were the main contributors of the morning session covering various aspects of mangrove restoration. This session was a mixture of presentations and hands-on practical exercises.



DAY 2
07/05/2019

FIELD TRIP TO "CORONIE" MANGROVES



DAY 3
08/05/2019

COMMUNITY BASED ECOLOGICAL MANGROVE RESTORATION

Dominic Wodehouse led this session focusing on how mangrove restoration projects should be embedded within the community. Techniques, case studies, results, etc. were presented to the participants to illustrate good practices.

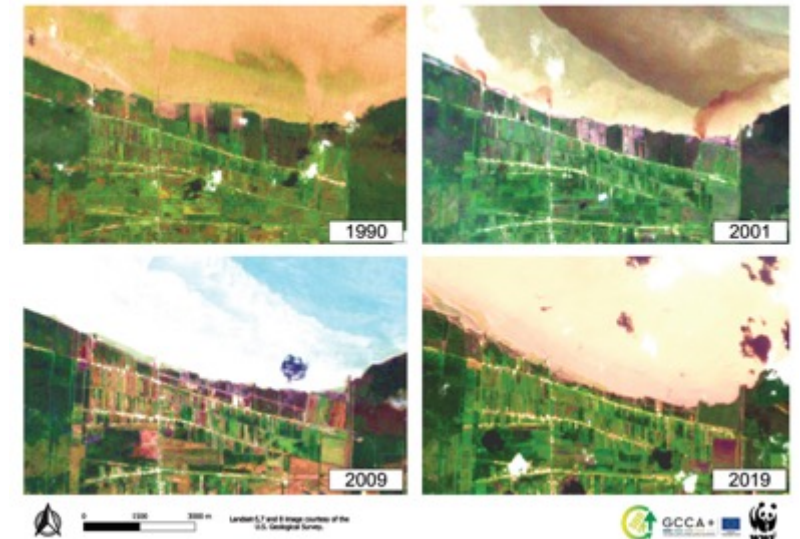




Green, Grey or Both for Coastal Defence
Presentation by **Hanneke Van Laveren**



Mangrove Restoration Experiences from Guyana
Presentation by **Kene Moseley**



Restoring Mangroves in Suriname: Building with Nature
Presentation by **Sieuw Naipal**

DAY 4
09/05/2019

FIELD TRIP TO “WEG NAAR ZEE” MANGROVES



DAY 5
10/05/2019

MANGROVE-BASED LIVELIHOODS



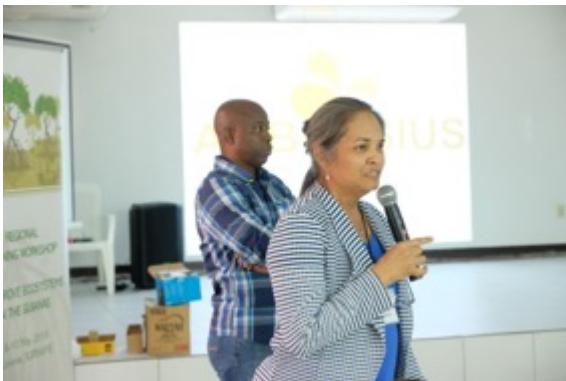
Mangrove ecotourism as community-based approach
Presentation by **Martin Keeley**



Bird watching
Presentation by **Martin Keeley**



Mangrove based livelihoods: Guyana Case Study
Presentation by **Kene Moseley**



Demonstration of honey making and beekeeping in Suriname
Presentation by **Ambrosius**



Kronto Challenge
Presentation by **Vincent Kenswill**



Mangrove Education Centres Coronie as example
Presentation by **Loes Trustfull**

DAY 5
10/05/2019

FIELD TRIP TO CORONIE'S MANGROVE BASED LIVELIHOODS



CERTIFICATE OF TRAINING

is awarded to

in recognition of having successfully completed the

Regional Training Workshop MANGROVE ECOSYSTEMS IN THE GUIANAS

6-10 May 2019, Coronie, SURINAME

DATE COMPLETED

HANNEKE VAN LAVIEREN
Oceans and wildlife coordinator
WWF GUIANAS

DOMINIC WODEHOUSE
CBEMR consultant
MANGROVE ACTION PROJECT





ANNEX 1

LIST OF PARTICIPANTS

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ANNEX 1

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AIM

Field demonstration of coastal area in Guianas, challenges of mangrove restoration along dynamic and muddy coasts and using Building with Nature methods for mangrove restoration

WHAT PARTICIPANTS NEED TO WEAR AND TAKE WITH THEM

- Sun hat
- Long sleeve shirts against the sun
- Ankle or wetsuit Boots (or shoes with laces) for wading in the mud
- Sunscreen
- Waterproof bag for valuables / phone / camera.
- Insect repellent
- Water in a refillable canteen (and WWF brings 20lt bottles to avoid handing out loads of plastic bottles)

FIELD EQUIPMENT NEEDED

- Binoculars
- pH meters

Time	Activity
8:30	Depart Coronie at 8:30 am
10:30	<p>Arrival participants and trainers and snacks and drinks</p> <p>Visit to the Cremation site. Here natural regeneration of the mangroves are seen. Measurements of WQ (Water quality) can be done. (duration 30minutes at the location)</p> <p>Driving to the east, into the Brantimakka weg up till the sluice of the Bantimakka. Here we will see and demonstrate the erosion rate. We will also see the recent dam breach. We will also see and observe the economic activities along the coastline. You will be the evidence of measures taken to prevent from getting inundated during high-water spring. We can also do some WQ monitoring and to compare the results. Duration approx. 1-1:30 hours.</p> <p>From here we will go to the Hindu Pilgrimage. Here we can see the grey technique (solution).</p>
12:00	LUNCH
13:00	<p>The following location is the mangrove rehabilitation and restoration site. We can go first for the lunch at the location if you have the meal in boxes or go to “De Sluis”, were we can enjoy local food. (this part is your responsibility)</p> <p>Hereafter we will enter the nursery.</p> <p>We will continue the way to the restored site. We can do here also some measurements (WQ, Plant height, Observing birds, reasons for mangroves dead, etc.</p> <p>We will further continue our daily program with planting mangrove, the green technique (solution). You will have the opportunity to plant mangroves.</p>
15:30	Return to Coronie (it is then to hope that you are tired).