LESOTHO: INCORPORATING THE ECOSYSTEM SERVICE APPROACH INTO INTEGRATED CATCHMENT PLANNING IN-PERSON TRAINING

DETAILED AGENDA
16 – 19 AUGUST 2022
KICK4LIFE, MASERU, LESOTHO

Day 1
Tuesday, 16 August 2022

Chair: Mr. Fanana Makomoreng – Coordinator: Integrated Catchment Management Unit (ICU)

High-level Introduction to the Ecosystem Services Approach for Informed Decision Making *Learning Objective: Technical and non-technical senior-level participants will gain a high-level understanding of the value and potential of the ecosystem services approach for improved decision making with an emphasis on integrative catchment planning.*		
Time	**Training Focus**	**Facilitator(s)**
08:30 – 09:00	***Registration and Morning Tea***	
09:00 – 09:10	Opening Remarks	Mr. Lisema Lekhooana, Deputy Principal Secretary, *Ministry of Water of Lesotho* Ms. Mafupu Mokoena, Operations Officer, *The World Bank*

09:10 – 9:40	Participant Introductions & Overview of Agenda	Ms. Nthatuoa Kuleile, *Integrated Catchment Unit (ICU)*
09:40 – 10:30	Presentation of upcoming milestones in ICM planning followed by discussion	Ms. Matsolo Migwi, *Integrated Catchment Management Unit (ICU)* and Mr. Hans Beuster, *GIZ*
10:30 – 10:50	***Coffee & Tea Break***	
10:50 – 11:30	The Ecosystem Services Framework for Guiding Integrated Catchment Management: Concepts and examples from the Natural Capital Project (30 min + 10 min Q&A)	Dr. Adrian Vogl, Lead Scientist, *BELA Initiative, The World Bank and Stanford University*
11:30 – 12:30	Policy Options to Achieve ICM Goals Using the Ecosystem Services Framework (60 min including discussions)	Dr. Jane Turpie, Director, *Anchor Environmental*
12:30 – 12:40	Event Evaluation Activity	Mr. Khombomoni Keith Chuma, Consultant, *The World Bank*
12:40 – 13:40	***Lunch Break***	
13:40 – 14:30	Overview of tools for spatial analysis of ES: Concepts, data, capacity, and resources required (35 min + 15 min Q&A)	Mr. Jorge Leon, Consultant, *BELA Initiative, The World Bank*

14:30 – 15:00	Closing & Announcements for Day 2	Ms. Matsolo Migwi, *Integrated Catchment Unit (ICU)*

Day 2

Wednesday, 17 August 2022

Chair: Mr. Ramochaha Lethola – M&E Expert: Integrated Catchment Management Unit (ICU)

Basics of Ecosystem Service Modeling for Water Quality and Regulation

Optimizing tools & data for your context and evaluating scenarios with stakeholder input to inform policy & planning

Learning Objective: Technical participants will gain an introductory understanding of the tools available to assess two priority ecosystem services (water quality and regulation) and the associated co-benefit services such as carbon sequestration, grazing, and tourism. Participants will learn how to select the best tools for their context, evaluate scenarios with stakeholder input, and inform policy with results from spatial models.

Time	Training Focus	Facilitator(s)
08:30 – 9:00	***Registration & Morning Tea***	
09:00 – 09:10	Welcome: Recap from Day 1 and Overview of Day 2 Agenda	Mr. Tsele Rantso, *Range Resources Management*
09:10 – 09:15	Catchment Poster Presentation	Mr. Motlalepula Rasekoele, *Integrated Catchment Management Unit (ICU)*
09:15 – 10:20	Deep Dive into Tools for Modelling Water Regulation and Co-Benefits (45 min + 20 min Q&A)	Mr. Jorge Leon & Dr. Adrian Vogl, *BELA Initiative*

10:20 – 10:40	***Coffee & Tea Break***	
10:40 – 12:00	Modelling Water Regulation (continued): Evaluating scenarios to make policy recommendations for ICM (50 min + 30 min Q&A)	Mr. Jorge Leon & Dr. Adrian Vogl, *BELA Initiative*
12:00 – 13:00	***Lunch Break***	
13:00 – 14:20	Deep Dive into Tools for Modelling Sediment Retention: Model overview, data needs, model set-up (45 min + 25 min Q&A)	Mr. Luke Wilson and Dr. Jane Turpie *Anchor Environmental*
14:20 – 14:40	***Coffee & Tea Break***	
14:40 – 16:00	Modelling Sediment Retention (continued): Model outputs and calibration, setting up scenarios for ICM (50 min + 30 min Q&A and scenario discussion)	Mr. Luke Wilson & Dr. Jane Turpie *Anchor Environmental*
16:00 – 16:10	Event Evaluation Activity	Mr. Khombomoni Keith Chuma, Consultant, *World Bank*
16:10 – 16:30	Closing & Announcements for Day 3	Mr. Ramochaha Lethola, *Integrated Catchment Unit (ICU)*

Day 3

Thursday, 18 August 2022

Day 3 - Site Visit to Makhalaneng River *A day-long site visit to Makhalaneng river catchment led by the ICU and open to all participants. Please wear comfortable clothes and be prepared to be outside. Lunch and transport will be provided.*	
	
08:00 – 8:30am	***Registration & Morning Tea***
Transfer to Ha Moitsupeli via Roma (65 km / 118 min)	
08:30 – 10:20	Ha Moitsupeli / Thabana li Mele watershed (Makhalaneng Priority Sub catchment Area)
10:20 – 10:40	Short walk to Puete watershed - 20 min + 20 min to and from wetland walk
10:40 – 13:00	Puete Watershed - Identification and familiarisation of Catchment area (wetland area, rangelands and croplands, etc.)
13:00 – 13:30	***Lunch Break***

13:30 – 14:00	Short walk from Puete watershed
Transfer to Kick4life Maseru	
14:00 - 15:00	Arrive Maseru

Day 4

Friday, 19 August 2022

Chair: Dr. Mamohau Thamae – Senior Lecturer: National University of Lesotho (NUL)

Interpreting Ecosystem Service Assessment Results *Learning Objective: Technical and non-technical senior-level participants will work with Lesotho results to learn best practices for interpreting results, engaging stakeholders for feedback and input, exploring scenarios, and understanding the policy implications for Lesotho.*		
Time	**Training Focus**	**Facilitator(s)**
08:30 – 09:00	***Registration & Morning Tea***	
09:00 – 09:10	Welcome: Recap from Day 2 and Overview of Day 4 Agenda	Mr Selebalo Ramakhanna, *Agricultural Research*
09:10 – 09:20	Special presentation on water quality and river health	Mr. Ntiea Letsapo, *Ministry of Water*
09:20 – 10:40	Using Ecosystem Services Results for Decision Making: Water Regulation	Dr. Adrian Vogl, *BELA Initiative*
09:40 - 10:50	Ecosystem Services Group Activity	Mr. Jorge Leon, *BELA Initiative*
10:40 – 10:50	***Coffee & Tea Break***	

10:50 – 12:10	Reporting on the outcomes of the Group Activity	Group Representatives
12:10 – 12:20	Final Evaluation Activity	Mr. Khombomoni Keith Chuma, Consultant, *The World Bank*
12:20 – 12:30	Closing Remarks & Next Steps	Mr. Fanana Makomoreng, *Integrated Catchment Unit (ICU)*
12:30 – 13:30	***Lunch Break***	

Meet the Trainers

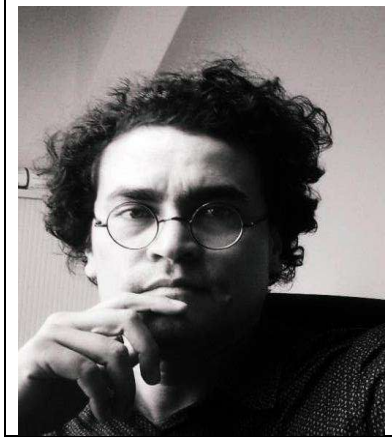
Dr. Adrian Vogl

Lead Scientist at The Natural Capital Project, Stanford University
Co-Lead of the BELA Initiative at the World Bank

Adrian Vogl (she/her) is a Lead Scientist for Stanford University's Natural Capital Project and a Consultant with The World Bank. Adrian's work engages researchers, policymakers, and civil society groups worldwide, advancing the science and practice of nature-based solutions for water security. Her focus is on how land management impacts water and other ecosystem service co-benefits, particularly in the face of changing and uncertain climate conditions. At The World Bank, Adrian co-leads the Biodiversity, Ecosystems, and Landscape Assessment (BELA) initiative. This initiative engages with policymakers, technical staff, and consultants to produce analytical products, tools, and to build capacity for integrated landscape management to enhance the durability of investments in infrastructure, agriculture, and environment, and to enhance countries' resilience to climate change.
Adrian holds a Ph.D. in Aquatic Resources from Texas State University-San Marcos, and a B.A. in Cultural Anthropology from the University of Arizona.

Mr. Jorge Eduardo Sarmiento

PhD Candidate | BELA Initiative, University of São Paulo| The World Bank



Jorge Leon Sarmiento, PhD candidate in Applied Ecology at University of Sao Paulo, Brazil. As part of the Latin American Water Funds Partnership in The Nature Conservancy for more than 10 years he supported the creation of technical and financial mechanisms aimed to invest in restoring and protecting the green infrastructure that provides the water for mega cities such as Mexico City, Lima, and Sao Paulo. His research areas of interest include improving scientific knowledge around water security for metropolitan areas and expanding the monitoring network to identify the impacts of natural infrastructure in water quality and quantity. His academic interests are focused on the use of artificial intelligence to take advantage of big data generated by space agencies around the world that can contribute to water security at local level. Currently supporting the World Bank team on Landscape Assessments of Ecosystem Services across Africa and Asia using Remote Sensing, GIS modeling and Cloud Computing.

Email: Jorge.Leon@USP.BR

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We are a river

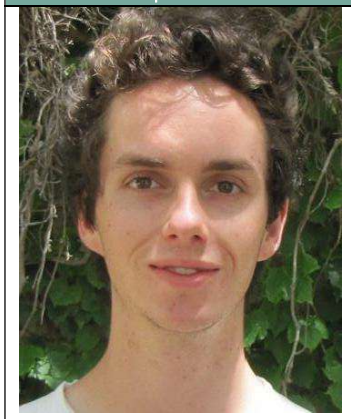
Dr. Jane Turpie

Director at Anchor Environmental Consultants
Senior Research Fellow at Environment for Development

Dr Jane Turpie has a PhD in ecology from the University of Cape Town, and has worked and taught in the fields of conservation biology and resource economics for the past 26 years. Jane's interests and experience are broad and multidisciplinary, and she thrives on the integration of ecological and socio-economic aspects of natural resource management problems. Her work has included natural resource management, incentive and financing systems for conservation, quantification and valuation of ecosystem services, household livelihoods and pressures on natural resources, modelling socio-ecological systems, integrated conservation and development planning, quantitative scenario analysis for integrated water resource management, and climate change vulnerability and adaptation studies. She has supervised 42 postgraduate students and published 62 peer-reviewed papers in ecology and economics disciplines as well as authoring many technical reports. Jane is Director of Anchor Environmental Consultants, Senior Research Fellow of the Environmental-Economics Policy Research Unit, School of Economics, University of Cape Town, Honorary Research Associate of the South African Institute of Aquatic Biodiversity (SAIAB) and on the editorial board of the African Journal of Marine Science.

Mr. Luke Wilson

Consultant| Anchor Environmental Consultants



Luke has an MPhil in Conservation Biology and a BSocSc Hons in Environmental and Geographical Studies from the University of Cape Town. His MPhil dissertation involved the assessment of elephant browsing around waterholes in Zimbabwe's Zambezi National Park to inform future water augmentation plans in the park. Since graduating, Luke has worked extensively on ecosystem service valuation and natural capital accounting, incorporating geospatial analysis using ArcGIS and QGIS and hydrological modelling using the InVEST Natural Capital Accounting software packages and Anchors' own GIS-based modelling methods. He has undertaken InVEST modelling for a number of services at various spatial scales in a number of assignments, ranging from the 3000 km^2 Mwache catchment in Kenya to the entire Orange-Senqu basin that spans Lesotho, South Africa, Botswana and Namibia, and East Africa's wildlife landscapes.

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