Course Evaluation Summary

1st International Training Course on Mangrove Ecosystems in the Western Indian Ocean Region

Moana Station, University of Nairobi - Diani, Kenya

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I. Background

The United Nations University Institute for Water, Environment and Health (UNU-INWEH) 1st International Training Course on Mangrove Ecosystems in the Western Indian Ocean (WIO) Region has been designed to build the capacity of professionals and institutions from WIO countries to undertake monitoring, research, and management of mangrove ecosystems. This is achieved through the training of young professionals in research methodologies and the latest trends in research on the conservation of biodiversity in mangrove ecosystems. The program is also set up to promote and encourage the development of a network of professionals within WIO countries working in mangrove ecosystems. The course marks the first training activity officially implemented under the WIO Mangrove Network (WMN) in partnership with Coastal Oceans Research and Development in the Indian Ocean (CORDIO), the University of Nairobi (UoN), and the Kenya Marine and Fisheries Research Institute (KMFRI), in the hopes that it will become an annual course to be held in the region.

II. Report Overview

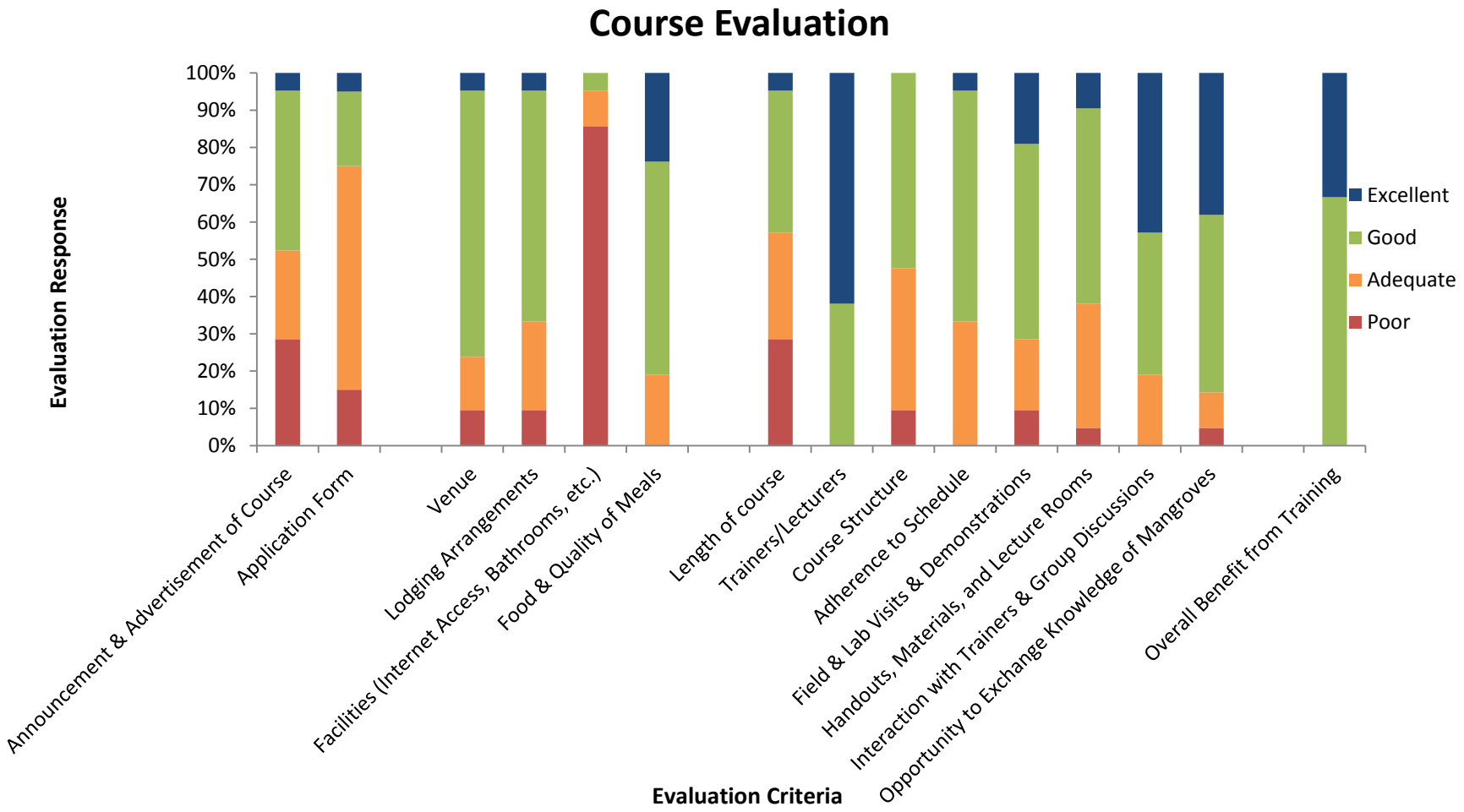
The 1st International Training Course on Mangrove Ecosystems in the Western Indian Ocean Region was successfully premiered in Diani, Kenya following the success of 12 similar training courses in India. Twenty four participants from across the WIO Region took part in the 8-day course focused on mangrove biodiversity and ecosystems. The following report summarizes the results of course evaluations made by the participants.

Altogether, the results of the course evaluations highlighted several areas in which the course functioned extremely well, and also potential areas of improvement. In general, respondents agreed that the course was enjoyable and met their expectations. Everyone found the trainers and lecturers to be superb. Several respondents went on to highlight the relevance of the course and the prospects of implementing the materials learned in their own research, teachings, and conservation efforts.

The top three areas of opportunity for improvement, as highlighted by respondents, were:

1. **Increasing the length of the course**
2. **Scheduling more lab, fieldwork, and discussion**
3. **Finding accommodation with better internet access and general facilities**

III. Course Evaluation



IV. Respondent Feedback

a) Opinion of Application Process: Course announcement and advertisement

Applicants were split between finding the announcement and advertisement of the course to be 'good' and finding it to be simply 'adequate' or in need of improvement. Some participants expressed difficulty in saving the PDF, while others requested better advertising amongst groups outside of the marine community (e.g., forest management and conservation professionals, as they are also interested in mangroves, or government groups more directly). Most applicants felt that even though the advertisements themselves were okay, they did not reach a wide enough audience.

Overall impression: adequate

b) Opinion of Application Process: Application form for Fellowship and requirements

Most applicants thought the application process was 'adequate' rather than 'good' because of the length and the inability to complete the process online. That being said, all applicants understood the process and found it to be clear.

Overall impression: adequate

c) Venue

The majority of respondents enjoyed the venue and found it to be comfortable. No recommendations were made with respect to changing the venue, but smaller requests were made with regards to improving certain aspects of the venue (e.g., specific aspects of the lodging arrangements, as discussed below).

Overall impression: good

d) Lodging arrangements

Most respondents described the lodging arrangements as favorable, but took issue with the facilities – particularly in the women's lodgings. In this respect, experiences of the women were typically less favorable than those of the men, due to the small size and number of washroom facilities.

Overall impression: good

e) Facilities (internet, washrooms, etc.)

All applicants except one found the facilities to be inadequate. Internet access was poor or non-existent, and the bathrooms were too small and too few (occasionally causing clogging). Many complained that the lack of internet meant that they were unable to stay abreast of current topics and issues that were highly relevant at the time (e.g., the passing of Nelson Mandela, news from their home countries, etc.).

Overall impression: inadequate

f) Food

Most respondents found the food to be favorable. The only recommendation for change came from two respondents who specifically requested that a greater diversity of meals be offered.

Overall impression: good

g) Course length

With the exception of one participant, all respondents agreed that the course was too rushed and should be held over a longer period of time. Recommendations included extending the course length to anything between two weeks and a month.

Overall impression: adequate

h) Course trainers and lecturers

All respondents indicated their appreciation for the excellent quality of the trainers and lecturers. Dr. Kathiresan received specific mention numerous times.

Overall impression: excellent

i) Course structure

The course structure was deemed by most to be good or, on occasion, adequate. The only recommendation was for the course to be spaced out more, to allow more time for students to absorb the information and to create a more relaxed experience (many indicated that the course structure was too tight for the amount of information covered in each class or activity). In relation to this, some participants felt that the need to cover so much information in such little time meant that classes were ending too late in the evening, wearing people down, and requested either more time or more breaks. In contrast, one participant felt that the breaks were occasionally too long. It was requested that feedback forms be given out directly after a class and/or at the end of the day, rather than during the following day, so that the participants

are able to recall the lecture with more clarity. A few participants suggested incorporating more time for discussion.

Overall impression: good

j) Adherence to planned schedule

Most participants felt that adherence to the planned schedule was good. Those who found adherence to the planned schedule to be 'adequate' indicated that it seemed too squeezed.

Overall impression: good

k) Field and lab visit

Most respondents found the field and lab visits to be quite good and/or their favorite part of the course. That said, they often requested more field and lab visits, with some proposing there had not been enough during the course. Issues concerning timing (i.e., length of allotted time) were occasionally mentioned, where it was suggested additional time be allotted to enable the completion of field and lab analyses, data processing, and presentations. One recommendation was to split everyone into smaller groups for the purposes of demonstrations.

Overall impression: good

l) Training course handouts, materials, and lecture room

Most respondents found the handouts and materials to be quite good, but found the lecture room to be too cramped and hot, given the number of people. The recommendation made by almost all students was to increase the size of the lecture room and ensure proper chairs and desks. Minor suggestions were made with regards to the course handouts and materials, suggesting more mangrove brochures from around the world, a better carrying bag for the materials, and some hats/t-shirts.

Overall impression: good

m) Interactions with trainers and group discussion periods

Respondents found this one of the most important aspects of the course (in addition to the fieldwork). Most described the interactions as 'good' to 'excellent', but often remarked that there was not enough time to fully interact, and that the session could be improved by allotting more time for group discussion periods and interactions with trainers.

Overall impression: good

n) Opportunity to exchange knowledge about status of mangroves from subjects' countries

The majority of respondents found there was a good amount of time to exchange knowledge about the status of mangroves in their respective countries with other participants. The time was more limited during structured learning sessions, but possible out-of-class. All of them noted their appreciation and enjoyment of the presentations. The only recommendations made were to provide some additional time for further discussion.

Overall impression: good

o) Most useful component(s) of training course

Most respondents said the entire course was useful, and frequently highlighted the following categories (in order from most to least mentioned):

- Field and lab visits (including specific techniques learned during that time)
- Discussions and experience sharing with other classmates and teachers – particularly the mangrove presentations from each country
- Learning about mangroves and climate change, as well as key threats
- Learning about the extent of mangroves in the WIO region specifically
- Learning the policy aspects of Mangroves (including ecosystem valuation, REDD, and global agreements)
- Blue carbon
- Case studies
- Biology lectures

Overall, respondents had a difficult time choosing just one or two 'most useful' sections and frequently listed 'everything' as being useful.

p) Least useful component(s) of training course

Many respondents left this question blank or said 'not applicable', as they found the entire course to be useful. Of those that did respond, the following aspects of the course were listed (shown here in order of most to least frequently mentioned):

- GIS and Remote Sensing
- Lecture on vegetation and forests/coastal and associated forests
    - **Reasons given:** too lengthy and hard to follow
- Lecture on coastal communities and their dependence on forest resources
    - **Reasons given:** focused too much on the terrestrial aspects

Overall, respondents had difficulties determining a 'least useful' component of the training course, and the few that were identified were listed by only a small group of respondents (approximately 3-4).

q) Missing topics and places for improvement

About half of the respondents indicated that there was nothing missing and no places to improve; the other half of respondents listed the following as either 'topics missed' or 'places for improvement' (in order from most to least frequently mentioned):

- More lab work, data compilation, and analysis of samples for better understanding
- Invite government nationals to get a sense of what is happening, ICZM coordinators, or 'NEMA'
- Demonstrate the practical application of GIS in mangrove management (lacking in the GIS session) and how to manipulate and navigate data through GIS features
- Discuss conservation issues, agricultural influence on mangroves, and communication issues for different audiences
- Restoration methods was lacking; needed a group discussion component
- Need more information on pollution and how to treat it
- Provide better internet connection
- Better spacing of the schedule
- Add moment to share cultural practices (e.g., dancing, etc.)
- Provide more regional cooperation opportunities

By far, the most commonly repeated request made by those who felt something was missing, was to schedule more lab and fieldwork sessions. Those who had found the GIS class least relevant or useful elaborated that they needed the lecturer to discuss more practical applications of the software to mangroves specifically (i.e., use real-life examples to make the process less abstract). Most of the comments, besides the previous two suggestions, were listed at the same frequency and were less common.

r) Learning About: Mangrove threats

A resounding majority felt they learned enough or 'more than enough' about mangrove threats. Some expressed surprise at learning so much, even after having worked in the field. One participant requested that less time be spent on mangrove threats and more on mangroves specifically.

<u>Overall impression</u>: excellent

s) Learning About: Mangrove management options and strategies

Again, an overwhelming majority indicated they had learned enough – or more than enough – about mangrove management options and strategies. Only four respondents provided recommendations for aspects they would like discussed in future. These included:

- More information on policies and how they work and are applied
- More information on protection, restoration, and degraded areas (i.e., dealing with oil or chemical spills; discussing river and estuary management)
- More practical examples of management options and strategies, along with some success stories
- More case studies

Overall impression: excellent

t) Course Manual

The most prominent feedback about the course manual is that it was "excellent", "wonderful and resourceful", "even for after the training". All respondents liked the manual and agreed that it was good. A few recommendations were made with respect to the editing. Some requested a final copy with further edits and the inclusion of missing presentation material and case studies in the manual (e.g., Prof. Kathiresan's case studies). Another request was to include more detailed information and illustrations, along with colored maps. Last of all, one participant requested that the information in the manual to be cited for easier information tracking.

Overall impression: excellent

u) Overall feelings about the training course

All respondents agreed that the training course was a great success, especially as the first of its kind in the WIO region. Many explained that it was a unique opportunity that is useful and important for those in the WIO. They all expressed gratitude and appreciation for the opportunity and to the lecturers. Some of the respondents commented that there should be a mangrove course every year, or possibly two sessions every year. The only negative comment received was that the field of training was not well selected.

Overall impression: good

v) Suggestions for future programs

Suggestions made by respondents for future programs were diverse in nature. In order to better understand the feedback, key comments have been grouped under four main categories: schedule; venue and lodging; course content; and overall program. The top suggestions were to increase the length of the course and reduce the amount covered per day (i.e., relaxing the schedule), provide better lodging with good internet access and adequate bathrooms, and include more fieldwork and discussion time. The key comments can be seen below, categorized into their respective groups:

- **Schedule**
    - Allot more time for the entire course so that the schedule can be spread out
    - Indicate the daily topics to be covered well-in-advance so that the trainees can prepare
    - Have the lectures before the fieldwork so that students are not as tired
    - More discussion time and presentation time
- **Venue, lodging accommodations, facilities, and food**
    - Provide a place with good internet access
    - Improve the accommodations by finding lodging with enough bathrooms to accommodate the number of people
    - Classroom should be larger
- **Course content**
    - Include more labs and fieldwork, more hands-on work
    - Incorporate more data analysis
    - Increase participation and presentation of success stories from other parts of the world
    - More scientific mangrove training, where countries' work and research are presented and discussed in order to enhance knowledge and scientific research in the WIO
- **Overall program**
    - Include information about opportunities and research groups in the lecturers' areas of expertise
    - Inadequate provision of travel and maintenance allowance costs
    - The student setup should remain the same
    - Diversity was amazing – keep this
    - Some countries are overrepresented

w) Additional comments

Respondents provided a wide variety of additional comments, with the most prominent listed below (in no particular hierarchy):

- Include and provide information on future opportunities and next steps for trainees
- Create a platform for follow-up
- Grow the network that was started and create a global mangrove network for action; enhance connectivity between members
- Plan a follow-on program to this course in order to track progress and new challenges
- Some lectures were too lengthy
- Be more specific about what to expect for lodging arrangements
- Form a regional mangrove team that can help promote mangroves across countries in the WIO region

In addition to the additional comments listed above, the most frequent comments were expressions of gratitude and thanks. Every respondent that filled out the final question indicated their thanks to the lecturers, trainers, and sponsors who made this course possible. Some proceeded to explain how they would take the information and use it in their home countries. To conclude, the additional comments and suggestions were largely positive in nature, focusing on respondents' enjoyment and enthusiasm of the unique opportunity that was afforded.

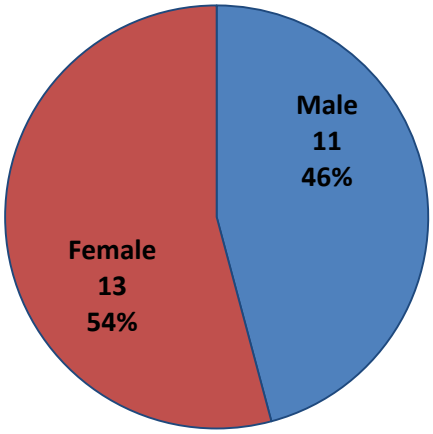
Annex 1. Demographic Overview of Participants and Questionnaire Respondents

Total Number of Course Participants: 24
Total Number of Questionnaires (Final Course Evaluation Forms) Returned: 21

Course	Respondent	Gender	Age	Subject background	Affiliation	Country
2013	Anonymous	n/a	n/a	PhD on Mangroves	n/a	n/a
2013	Anonymous	n/a	n/a	MSc Biology of Conservation	n/a	n/a
2013	Anonymous	n/a	n/a	Natural Resource Governance	Senior Researcher at the South African Institute of International Affairs	n/a
2013	Anonymous	n/a	n/a	Resource Management	Programme Coordinator at a training institution/NGO	n/a
2013	Anonymous	n/a	n/a	MSc Biology of Conservation	n/a	n/a
2013	Anonymous	n/a	n/a	Economic Valuation of Mangrove Fisheries	n/a	n/a
2013	Anonymous	n/a	n/a	n/a (not stated)	n/a	n/a
2013	Anonymous	n/a	n/a	PhD on Mangrove Ecosystems	n/a	n/a
2013	Anonymous	n/a	n/a	n/a (not stated)	Project Official at WWF	n/a
2013	January Ndagala	M	41	MSc Integrated Environmental Management and Coral Reef Assessment; BSc Forestry	Research and Monitoring Officer for Tanga Coelocanth Marine Park	Tanzania
2013	Pauline Wangui Macharia	F	29	MSc Environmental Science; BSc Applied Aquatic Science	Lecturer at Egerton University	Kenya
2013	Wycliff Nyakundi Nyamao	M	29	MSc Environmental Sciences; BSc Natural Resource Management		Kenya
2013	Kiplangat John	M	n/a	MSc Geography and Natural Resource Management	n/a	n/a
2013	Zamil Maturaf Maanfou	M	38	Masters in Vegetable Biology, Environmental and Marine Geology, and Biodiversity	Coordinator at Ulanga Mayesha Mayendreleo (UMAMA)	Comoros

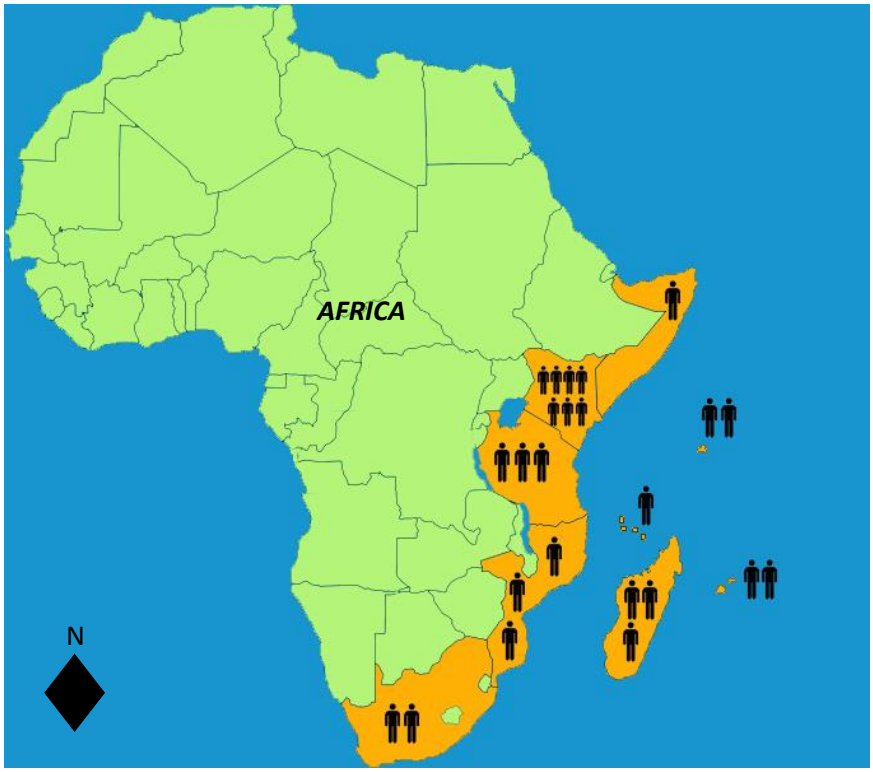
Course	Respondent	Gender	Age	Subject background	Affiliation	Country
2013	Sylvia Paulot	F	35	MSc Environmental Science; BA Management Finance and Accountancy	Mangrove Conservation Officer at Blue Ventures Conservation	Madagascar
2013	Ramahefamanana Mbolasoa Narindra	F	26	DEA Plant Ecology; MSc Plant Ecology; BA Plant Ecology	Researcher Training/PhD Student at the University of Antananarivo	Madagascar
2013	Rakotondrazafy Andriamampandry Riambatosoa	F	26	Masters in Geography; IOI Canada Certificate in Ocean Governance; International Certificate in Biodiversity	Project Assistant at the Ministry of Environment and Forests	Madagascar
2013	Loureen Akinyi Awuor	F	24	MSc Environmental and Occupational Health; BSc Environmental Science	Laboratory Assistant at KMFRI	Kenya
2013	Sosdito Mananze	M	31	MSc Natural Resources Conservation and Management; BSc Forestry	Lecturer at Eduardo Mondlane University	Mozambique
2013	Luis Junior Comissario Mandlate	M	27	Masters in Sericulture; BSc Ecology and Natural Resource Management	Lecturer and Partial Assistant at Eduardo Mondlane University	Mozambique
2013	Monica Mvakade	F	36	MTech Forestry; BTech Forestry; Diploma Community Forestry	Forester at the Department of Agriculture, Forestry, and Fisheries	South Africa

Gender Balance



Gender balance considers all participants within the course, not just the respondents

Participant Nationality



Map above considers all participants within the course, not just the respondents

Each figure on the map represents exactly one participant

Annex 2. Acknowledgements

This summary report is based on evaluations for (and provides a summary of) the 1st International Training Course on Mangrove Ecosystems in the Western Indian Ocean Region held from December 2nd–9th, 2013 in Diani, Kenya. The Course Evaluation Summary was prepared by Alessandra Gage on behalf of the United Nations University Institute of Water, Environment, and Health (UNU-INWEH).

All aspects of the course, from course manual and training preparations to lectures and fieldwork, were made possible thanks to generous support from the Western Indian Ocean Marine Science Association (WIOMSA), WWF – CEANI (Coastal East Africa Initiative), UNEP Nairobi Convention (under which the WIO Mangrove Network is anchored), and the University of Nairobi. Additional organizational and funding support has come from the Kenya Marine and Fisheries Research Institute (KMFRI), the United Nations University Institute for Water, Environment and Health (UNU-INWEH), and the Coastal Oceans Research and Development - Indian Ocean (CORDIO). Finally, sincere thanks and appreciation are given to the numerous professors and mangrove biodiversity and ecosystem training team members who worked to make this course a reality for all participants involved.