Second review meeting for the UNU-INWEH & UNESCO International Mangrove Biodiversity course

Nagoya, Japan
17 Oct. 2010

Report
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UNU INWEH
1. **Purpose of this review meeting**

UNU INWEH and UNESCO MAB have been providing core funding for this course annually since 2004. It is in our interest to ensure that the course is continuing to serve a valuable purpose. To achieve this, UNU INWEH has organized this meeting (i) to review the achievements of Annamalai University in convening the International Mangrove Biodiversity course, (ii) to suggest ways for improving the focus and implementation of the course, (iii) to consider expansion of the curriculum, (iv) to explore possible new venue(s) for delivering the course, (v) to discuss possible partnerships, and (vi) funding options for the future. It is hoped that this review will lead to significant and important changes to the course.

Prior to this external review, an internal review was conducted on site from 10 to 15 Oct., 2010 by Hanneke Van Lavieren UNU INWEH at Annamalai University, India.

2. **Introduction**

The agenda for the meeting is given in Annex 1. The meeting was opened by Hanneke van Lavieren with a short introduction about UNU INWEH, the history of UNU’s role in the course, the application process, selection criteria of participants and the purpose of this review was presented. This was followed by a short overview of the outcome of the first review meeting in Tokyo, Japan on 9 July 2002 and the results of the internal evaluation done with participants from the 2008-2009 courses. Dr. Kathiresan then presented the former and current structure of the course, an overview of the participants who have attended since 2002, nationality, gender and age details, the venue and provided a budget overview. This was followed by a presentation on the view for the future of the course by Annamalai University.

3. **Proposal for the future - Annamalai University**

Dr. Kathiresan presented a few aspects of current importance to the syllabus of the course: (i) climate change conservation in the coastal zone and disaster risk reduction; (ii) participatory approach in coastal resource management including sustainable livelihood management and sustainable finance management; (iii) economic valuation of mangrove forest ecosystems; and, (iv) management and policy relevant focus including Marine and Coastal Protected Areas.
Dr. Kathiresan requested for an increase of funding support from US$ 20000 to US$ 40000. He also requested for a one-time grant for construction of an international guest house with all in-built facilities for a total cost of US$250,000 that includes 60% contribution by UNU INWEH and 40% by Annamalai University.

Dr. Kathiresan further suggested to develop a 6-month Advanced Diploma Course of UNU & Annamalai University on “Coastal Biodiversity of Mangrove Ecosystems” - one for catering to the needs of academics/researchers and another one for the benefit of policy makers/managers, through on campus mode or off-campus mode or both modes.

4. **Documents and websites reviewed by panel members**

   - First review report (2002)
   - The latest proceedings of the course (2009)
   - The latest training course manual (2009)
   - International participant evaluation report including the review criteria used (2009)
   - Proposal for the review: agenda for discussion in the meeting
   - Link to website – announcement and application for the course
   - Open courseware site

5. **Review Topics:**

1) **Review the course curriculum.**
Discuss content and consider increased emphasis on management and on current issues such as climate change and economic valuation among others. Possible new topics to be added to the course are:
   - *Current knowledge and threats:* update with new and up to date research and threats.
   - *Economic valuation of mangrove forests:* focus on the benefits and values of mangrove ecosystems and resources, the services they provide, and the costs of losing these habitats on environment, human life and economy.
   - *Mangroves in a Changing Climate:* include different methods available to assess mangrove vulnerability to projected sea level rise and other climate change effects. Focus on tools and methods for increasing the resilience of these ecosystems to global change.
   - *Management and policy relevant focus:* focus on management options available for mangrove ecosystems, including recovery and restoration methods, and will discuss possible policy options.

2) **Revision of course proceedings.**
Review content, structure and format of syllabus.

3) **Expand target audience and access within the region.**
Discuss the types of target audience we want to reach (academics, managers, decision makers). Depending on the outcome of the curriculum revision, two separate courses aiming at different target audiences is a possibility: one course targeting researchers and academics and the other targeting managers and decision makers. We can consider holding:
   a) the same course at a second venue at an institution to be determined in SE Asia; or
b) a different course at a second venue in the region.

4) Logistical arrangements.
Review logistical arrangements before and during the course.

5) Funding support.
Discuss possible options for future funding, as well as additional funding sources.

6. Comments from the Review Panel

1) Review the course curriculum

All felt that the current manual and curriculum are up to date on current knowledge, research and science, information on threats and management strategies.

W. K. Rathnadeera
- The current course is strongly academic, requiring more focus on management and conservation but it depends on participants of the course.
- Teaching on protected areas with mangroves and their selection and design criteria is needed.
- Policy options specific to the South Asian region will be useful.
- Economic valuation of mangrove ecosystem needs to be added.
- Climate change and adaptation strategies need to be added.
- Some case studies from the South Asian region can be presented.

Masakuzo Kashio
- The current focus of the course is too wide and it tries to cover everything. The time available to cover this it is too short. 2 weeks is not enough to go into any real depth on any of the subjects.
- If we want to add a higher level participants (Ministries of fisheries, environment, agriculture, forestry) then the focus of the course needs to be more on management and policies.
- For the on the ground people, a more technical and practical course can be convened
- Socio-economic evaluation needs to be added.
- Include lessons learned of failures and successes with local examples.

Nicola Barnard
- The course is very dense.
- It will be a challenge to add any subjects to this already full curriculum.
- We need to decide the why and what for the course.
- We need to separate 2 types of participants: academics and administrators.
- Integrate climate change specifically sea level rise and carbon sequestration and resilience to climate change. For these subjects - specific research needs and capacity gaps should be identified. The tools needed to deal with these issues need to be provided.
- Add GIS as a management tool. Currently this session only looks at the tools and technical level of GIS, we need to add how it can be used for modeling and predicting future scenarios which can be used for policy advice.
- We could consider developing an online distance modular course, with direct mentoring by professors for the more technical and biological course and an on-site face to face course on management tools and policies.

**David Coates**
- The science of the current course is very in depth and sound. This could better be changed into a post graduate course.
- Add some more interactive elements in the course for example: participants are asked to come up with a problem – they present this and then sit in groups to discuss each problem and the participants use what is learnt in the course to solve the problem.
- Not enough emphasis on the freshwater links and hydrology. There is an over-emphasis on marine ecosystems and links. Many problems occur from inland – degradation and pollution.
- Economic valuation needs to be added but in a course that allow this - not in the current more ecological course.
- There is a lot of literature (manuals etc.) available on economic valuations of wetlands by CBD, RAMSAR and Wetlands International which we can be used for the course.

**2) Revision of course proceedings**
- Overall the panel liked the format and structure of the course proceedings.
- It was also suggested that the participant evaluation questionnaires could be done electronically so they are more readable.

**W. K. Rathnadeera**
- Suggested that the country status reports presented by the participants during the course could be summarized or added as presentations as an annexure to the proceedings.

**3) Expand target audience and access within the region**
- A clearer selection of the target audience is needed. If there are two audiences – scientists versus managers or decision makers - then a course should be tailored for each.
- There could be two training courses given at two different venues or one as an online course and another course given on site.
- With the current limit of the budget it is not feasible to expand the course into two separate courses nor expand it to two venues. The focus of the current course should be amended to tailor to one of the 2 groups.
- If we can add funding then we should have the 2 courses and make sure we sell to the correct audience.

**Masakuzo Kashio**
- Consider expanding the course to other venues in the region such as Japan (explore funding options from foundations in Japan).
- Also explore Thailand with Dr. Sanit Aksornkoae or Vietnam with Dr. Phan Nguyen Hong and others.

**Nicola Barnard**
- A way to be effective in expanding without additional funds is to expand the course by having it online with video pictures and success stories - such as the online TNC coral reef resilience training where students have to apply for the course, then they proceed with completing modules (about 7) and after each module they can proceed to next (there are other examples). This also sets the stage for developing a network of Alumni.
- The participants could then do a more practical course on site.

4) **Logistical arrangements**
- All felt that the logistical arrangements presented looked appropriate and well organized
- The passport details of participants should be added to the application form.
- If we have a higher level course, the participants should also be selected from forestry departments – in many countries this is where the mangroves fall.
- We should announce the course better through other websites and networks such as the SACEP - through their country focal points and the Ministries of Environment.

5. **Funding support**

**Masakuzo Kashio**
- Explore funding options from foundations in Japan.
- Translate into other languages so you reach other donors and audience such as Spanish and Chinese.
- Consider private sector funding.

**W.K. Rathnadeera**
- Possibility of finding scholarships/fellowships from other sources (e.g. Government of India).
- A list of possible foundations (nature conservation funds) should be made and approached.

**David Coates**
- We need to sell our course better to donors by making it more applicable to national priorities such as poverty reduction, flood control, carbon budgets, climate change adaption and disaster mitigation strategies.
- CBD has no funding for activities but a CBD logo can be added to the course if we want to make it more attractive to potential country donors, as a way for them to support or implement some of their commitments under the CBD.
- The CBD platform can be used for expanding the course.
- Link it to climate change and the role of mangroves in the protection of coast and human welfare, food and livelihood security – so it will sell better.
- Highlight their values for coastal protection and fisheries economy- governments want to see the return values for their investment.
- Link to private sector- such as Danone is supporting (fresh) water related activities - as part of their carbon offset (green washing).

Additional Comments from the Review Panel

Nicola Barnard
- We should have a mechanism to exchange ideas and ask for advice and assistance – such as through an onsite blog site – Alumni network. Also in the format of a technical clinic - hands on advice by experts.

W.K Rathnadeera
- We need to link to RAMSAR – this also gives governments the incentive and framework to become involved in this course.

7. Recommendations of the Review Panel

Suggestion for improvement of the course curriculum and proceedings:

- Highlight success stories and failures
- Present some case studies from the South and South East Asian region
- Policy options specific to the South and South East Asian region should be added
- Economic evaluation needs to be added
- Climate change and adaptation strategies needs to be added
- Country status reports presented by the participants during the course could be summarized or added as presentations as annexure to the proceedings

Recommendations for the future of the training:

- There is no other course on mangrove ecosystems offering training on coastal biodiversity and its resource management. Hence, this effort deserves continued support for strengthening and improvement.
- Revisit what category of audience we really want to reach with the current training course: (i) academics/scientists/researchers (or) (2) administrators/managers/decision makers (or) both in a balance.
- Based on this, consider possibility to split curriculum, or change the focus to accommodate one of the two broad categories.
- If we aim for two training courses then these can be given at two different venues (this requires double funding – 40,000 US$ instead of 20,000 US$) or one online course and another course can be given on site. However UNU INWEH and UNESCO MAB do not have the means to increase its support, therefore alternative sources of funding will have to be sought.
- Consider developing a 6-month Advanced Post-Graduate Diploma Course of UNU & Annamalai University on mangroves.
- Explore with contacts in Japan on the different ecosystem funds available.
• We need to sell our course better to donors by linking the course to national priorities such as poverty alleviation, climate change, disaster mitigation, carbon budgets and the role of mangroves in the coastal protection against disasters, economics, human welfare, food and livelihood security. Consider translation into other languages (e.g. Spanish, Chinese)
• The CBD platform should be explored for expanding the course.
• Approach the private sectors for funding (as part of their carbon offset - green washing).
• Explore funding for scholarships with governments (e.g. Govt. of India).
• Get formal approval from SACEP to support the training course in the next year.
• Explore possible links with RAMSAR and Wetlands International.
• Improve announcement of the training course through other organizations websites and networks.
• A network of the course alumni will be developed and UNU can play a key role in serving and the focal point for this network.
• A more systemic approach for follow-up with the participants should be developed.

8. The following sequence of activities was also agreed to:

1. The draft review report will be shared with all panel members.
2. The final review report will be submitted as an official review report to UNU (Rector), UNESCO (MAB) and Annamalai University (Vice Chancellor, Registrar and the course coordinators).
3. A decision will be made for the focus of this course, and possibility of two courses with different audience and focus:
   • Possibility of a part online course followed by an onsite face to face course will be considered or else two separate courses one onsite and another one online course will be considered
   • If funding is available, two different courses will be considered at two different venues
   • Possibility of a 6 month Advanced Post-Graduate Diploma program on mangroves will be considered
4. Based on the outcome of the above, the course coordinators will develop either one revised curriculum or two different curricula and send it for comment by the review panel.
5. The revised curriculum or curricula will be reviewed and commented upon by this review panel.
6. A course manual will be developed based on the revised curriculum.
Second review meeting for the
International Mangrove Biodiversity course

Sunday 17 Oct 2010
11.00 a.m – 3.00 p.m
Nagoya, Japan
Venue: Women’s/caucus side event room no: 236

Agenda

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<th>Time</th>
<th>Item</th>
<th>Participant</th>
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<tr>
<td>1</td>
<td>10.30</td>
<td>Welcome address</td>
<td>Ms. Hanneke Van Lavieren, UNU INWEH</td>
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<td>2</td>
<td></td>
<td>Introduction panel members</td>
<td>Panel members</td>
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<td>3</td>
<td>10.45</td>
<td>Genesis and evolution of the course: UNU’s role</td>
<td>Ms. Hanneke Van Lavieren, UNU INWEH</td>
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<td>4</td>
<td></td>
<td>Purpose of meeting</td>
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<td>5</td>
<td>11.00</td>
<td>Outcome first review meeting and participants evaluations</td>
<td>-do-</td>
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<td>6</td>
<td>11.15</td>
<td>Course: a decade of implementation</td>
<td>Prof. Dr. K. Kathiresan, Annamalai University</td>
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<td>7</td>
<td></td>
<td>Course: a way forward</td>
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<td>8</td>
<td>11.45</td>
<td>Review topics:</td>
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<td>8.1</td>
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<td>Review of course curriculum</td>
<td>Panel members</td>
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<td>8.2</td>
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<td>Revision of course syllabus</td>
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<td>8.3</td>
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<td>Expansion of course</td>
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<td>8.4</td>
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<td>Logistical arrangements</td>
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<td>Funding support</td>
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<td>9</td>
<td>13.30</td>
<td>Short discussion on similar training courses on mangroves by organizations in South East Asia</td>
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<td>10</td>
<td>14.00</td>
<td>Recommendations of the Review Panel and Action to be undertaken</td>
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<tr>
<td>11</td>
<td>15.00</td>
<td>End note and next steps</td>
<td>Ms. Hanneke Van Lavieren, UNU INWEH</td>
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