

## **Completion Report of Small Project**

SPD 564/09 Rev.1 (F)

Production of an Educational Book Series on  
Mangroves for Sustainable Management and  
Utilization of Mangrove Ecosystems

### **Host Government:**

GOVERNMENT OF JAPAN

### **Executing Agency:**

INTERNATIONAL SOCIETY FOR MANGROVE ECOSYSTEMS

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**June 2013**

**Title:** Production of an Educational Book Series on Mangroves for Sustainable Management and Utilization of Mangrove Ecosystems

**Project number:** SPD 564/09 Rev.1 (F)

**Starting date:** 1 January 2012

**Duration:** 15 months

**Project costs:**

ITTO	US\$ 149,904
ISME	72,330
<b>Total</b>	<b>222,234</b>

**Type of the report** Project Completion Report

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Ms. Nozomi Oshiro (Administrative & Finance Officer)

Dr. Barry Clough (Lead Author of Book 1)  
Dr. Ong Jin Eong (Lead Author of Book 2)  
Prof. Shigeyuki Baba (Lead Author of Book 3)

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**Place and date of report** Okinawa, Japan, May 2013

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## **Executive Summary**

Three mangrove educational books were published and distributed under this small project Production of an Educational Book Series on Mangroves for Sustainable Management and Utilization of Mangrove Ecosystems [SPD 564/09 Rev.1 (F)], funded by ITTO and Government of Japan, and implemented by ISME. The books were *Introduction to Mangrove Ecosystems* by Barry Clough, *Structure and Function of Mangrove Forests* by J.E. Ong and W.K. Gong, and *Useful Products from Mangrove Plants* by S. Baba, H.T. Chan and S. Aksornkoae. The trilogy represented the beginning of the ISME Mangrove Educational Book Series No. 1, 2 and 3.

The books were aimed at increasing public awareness of the environmental, ecological and socio-economic functions of mangrove ecosystems, and at providing the necessary information for development of appropriate policies and/or management plans for sustainable management and utilization of mangrove forests. Available in hard-copies and as e-books, the books would also serve as useful reference for students in colleges and universities.

Hosted by the Sabah Forestry Department, a book launching ceremony was held in Sandakan, Sabah, Malaysia on 12 March 2013. Concurrently, the books were uploaded onto the ISME and GLOMIS websites. Signed copies were presented to dignitaries. A seminar for target users was organized in conjunction with the launching ceremony to enable the authors to present highlights of the books. The launching ceremony was publicized by two local newspapers in Sabah.

All outcome indicators of the specific objectives were realized and the project was completed on time (March 2013). The budget was adequate to meet all the expenditures, with the exception of printing and shipment costs which were under-budgeted. Nevertheless, ISME procured some funds to cover some of the costs. Lessons learnt from the project were more aptly addressed as conclusions and recommendations.

Production of the French and Spanish versions of the books is envisaged in the next phase of the project, with dissemination and socialization of the products for target audiences in relevant French- and Spanish-speaking countries.

## **1. Project Identification**

This small project on the production of an educational book series on mangroves is aimed at increasing public awareness of the environmental, ecological and socio-economic functions of mangrove ecosystems, and at providing the necessary information for development of appropriate policies and/or management plans for sustainable management and utilization of mangrove forests. Written by mangrove experts, the books will be communicated in English that is understandable, relevant and useful for all stakeholder groups, which include governments, forest managers, research and learning institutions, private sector, and civil society. Case studies in each of the books will provide insights into regional experiences in management and utilization of mangrove resources.

This educational book series, which provide a comprehensive overview of mangrove ecosystems and their sustainable management and utilization, will complement *World Atlas of Mangroves for Conservation and Restoration of Mangrove Ecosystems* (Spalding et al., 2010) and the *Manual on Guidelines for Rehabilitation of Coastal Forests damaged by Natural Hazards in the Asia-Pacific Region* (Chan & Baba, 2009) which were published by ITTO and ISME. Information in the two introductory chapters on Mangrove Ecosystems and Mangroves and Man of the world atlas is very brief and lacks supporting case studies and illustrations. Information in the manual is specific on guidelines for rehabilitation of coastal forests damaged by natural hazards.

Furthermore, it has been yearly 20 years since *Journey Amongst Mangrove* (Field, 1995) a non-technical coffee-table book was published by ITTO and ISME as one of the outputs of PD 6/93 Rev.2 (F). Other books published by ISME such as *The Economic and Environmental Values of Mangrove Forests and their Present State of Conservation in South-East Asia/Pacific Region* (Clough, 1993), *Conservation and Sustainable Utilization of Mangrove Forests in Latin America and Africa Regions, Part I – Latin America* (de Lacerda & Diop, 1993a), and *Conservation and Sustainable Utilization of Mangrove Forests in Latin America and Africa Regions, Part II – Africa* (de Lacerda & Diop, 1993b) are compilations of country-based reports that need up-dating.

## **2. Project Objectives and Implementation Strategy**

Generally, all the three educational books will focus on the environmental, ecological, and socio-economic importance of mangrove ecosystems. Written by mangrove experts and communicated in a language that is understandable, mangrove managers of forest management units will find the books as useful references for drawing up management plans for sustainable management, conservation and utilization of mangrove forests. The books will also be of interest to NGOs, NPOs including education and research institutions. As for the book on useful products, the private sector interested in exploring the commercial

potentials of existing and new product development from mangroves may find it particularly interesting.

The development objective of this project is to strengthen the capacity of central and local governments as well as forest management units to develop appropriate policies and/or management plans for sustainable management and utilization of mangrove forests. Impact indicators will be the use of these authoritative books as references in the development of mangrove policy statements and management plans to reduce over-exploitation and unsustainable development of mangrove forests.

Specific objectives of this project are to increase public awareness of the environmental, ecological and socio-economic functions of mangrove ecosystems for activities to conserve and restore mangroves. Outcome indicators will be the publication and distribution of the books in English; successful completion of the workshop for target users; and uploading of the e-books onto the GLOMIS website, making the information available to all stakeholder groups.

### **3. Project Performance**

Overall, the realized performance of the project tallied with the planned performance. All outcome indicators of the specific objectives were realized. They included:

- Publishing and distributing three mangrove educational books
- Holding a workshop for target users
- Uploading the e-books onto the GLOMIS website

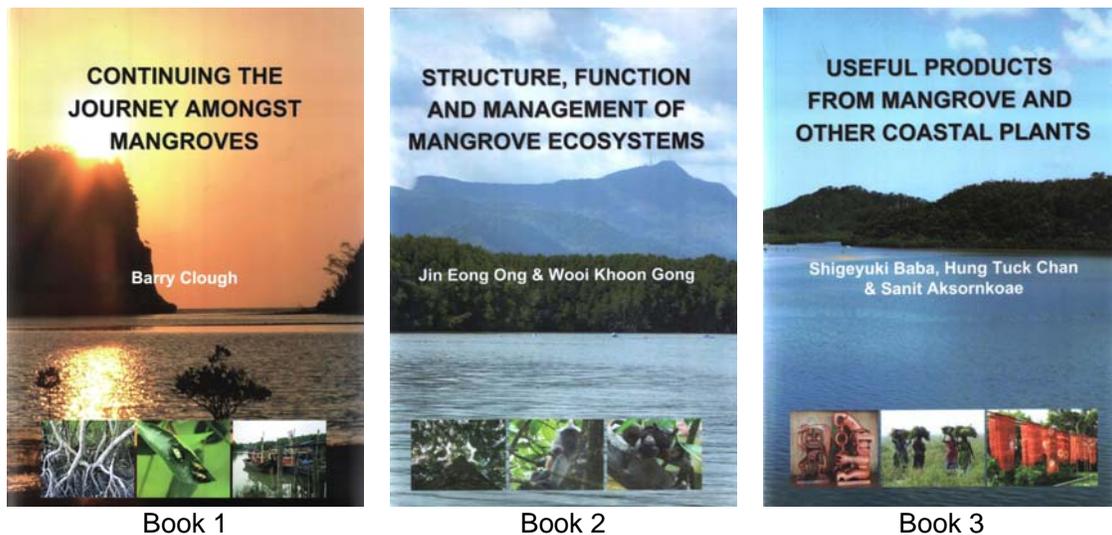
Not only all the outcome indicators were realized, the project was completed on time (March 2013). The books were printed by City Reprographic Services in Kuala Lumpur, Malaysia, and copies have been sent to ISME in Okinawa. The books were launched in March 2013 in Sabah, Malaysia. Concurrently, the e-books were uploaded onto the ISME and GLOMIS websites. Signed copies of the books were presented to dignitaries. The launching ceremony was followed by an ISME-ITTO seminar for target users.

The budget was adequate to meet all the expenditures, with the exception of printing and shipment costs which were under-budgeted. Nevertheless, ISME procured some funds from the Tropical Biosphere Research Center (University of the Ryukyus), Y.L. Invest Co., Ltd., and Chikyu Ni Yasashi (Earth Friendly Card) of the Defense of Green Earth Foundation and Cedyna Financial Corporation in meeting the cost of publishing the books. Prof. Baba (Executive Director of ISME) himself made a kind contribution to the costs.

#### 4. Project Outcome and Target Beneficiaries

##### 4.1 Publication of the mangrove educational books

Three books were published as outputs of the project (Figure 1). The books were *Continuing the Journey Amongst Mangroves* by Barry Clough; *Structure, Function & Management of Mangrove Ecosystems* by J.E. Ong & W.K. Gong; and *Useful Products from Mangrove & other Coastal Plants* by S. Baba, H.T. Chan & S. Aksornkoe. The trilogy represented the beginning of the ISME Mangrove Educational Book Series.



**Figure 1** Cover pages of ISME Mangrove Educational Book Series No. 1, 2 and 3

The books are written, published, launched and distributed in commemoration of Prof. Shigeyuki Baba, the Executive Director of ISME, who retired from University of the Ryukyus in March 2013.

##### 4.2 Launching and distribution of the books

The three mangrove books were launched by ISME and ITTO in Sabah. Hosted by the Sabah Forestry Department (SFD), the launching ceremony was held at the Rainforest Discovery Centre (RDC) in Sepilok, Sandakan, on 12 March 2013. In attendance were Datuk Sam Mannan (Director of SFD), Prof. Sanit Aksornkoe (President of ISME), Prof. Shigeyuki Baba (Executive Director of ISME) and Dr. Steve Johnson (Representative of ITTO). The launching ceremony started with the signing of books by authors (Figure 2) and key officials from ISME and ITTO.



**Figure 2** Signing of Book 3 by authors (L to R: Dr. Chan, Prof. Baba and Prof. Sanit)

Twenty-five copies of each book, together with 30 copies of CD-ROM containing PDF files of the three books, were sent by ISME to ITTO for distribution to all member countries. Signed copies were presented to the following persons or organizations:

- Princess Maha Sirindhorn of Thailand
- Ministry of Foreign Affairs, Japan
- Chief Executive Officer of ITTO
- The Honourable Chief Minister of Sabah
- Datuk Sam Mannan (Director of SFD)

At the same time, the books were launched on the ISME (Figure 3) and GLOMIS (Figure 4) websites and are currently indexed in the database of Google Scholar (Figure 5). Free PDF copies of the books can be downloaded from these websites.

In conjunction with the launching was a special event commemorating the retirement of Prof. Baba from University of the Ryukyus in March 2013. The event was publicized by Borneo Post and See Hua Daily Newspaper, two local newspapers in Sabah (Figure 6).

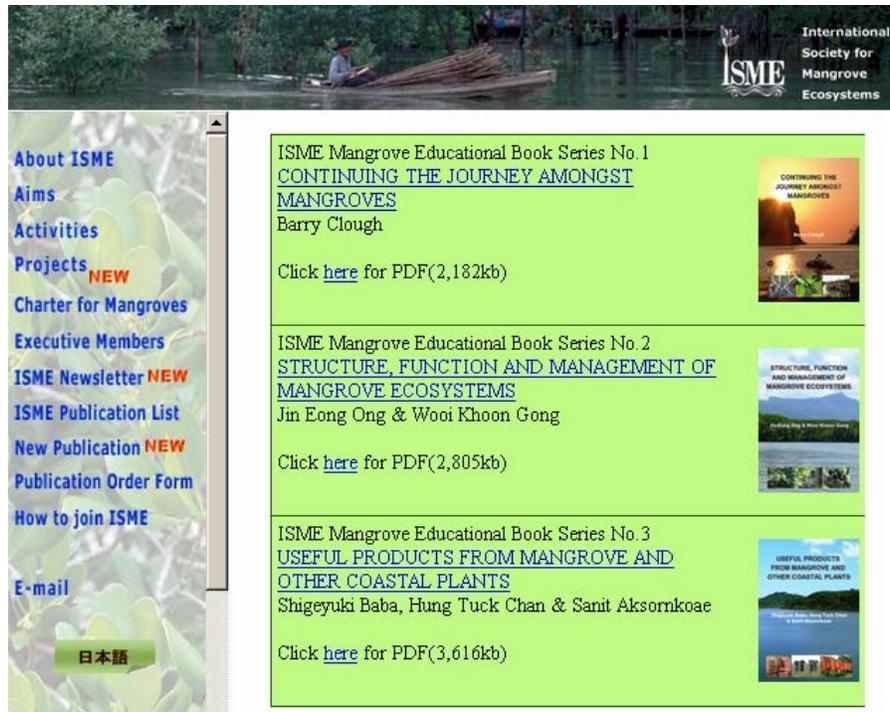


Figure 3 Launching of the three books on the ISME website

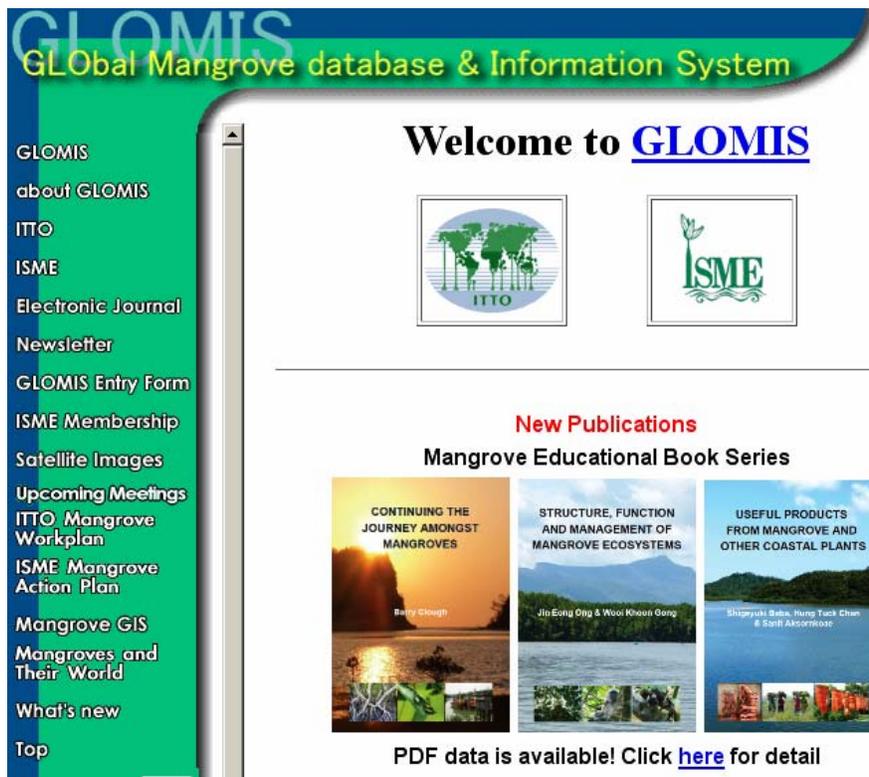


Figure 4 Launching of the three books on the GLOMIS website

[\[PDF\] Continuing the Journey Amongst Mangroves](#)

B Clough - 2013 - [mangrove.or.jp](#)

In 1995, the International Society for **Mangrove** Ecosystems (**ISME**) and the International Tropical Timber Organization (ITTO) published *Journey Amongst Mangroves*, authored by CD Field, which aimed to present the nature and importance of mangroves to as wide an ...

Cited by 2 Related articles Cite More ▾

[\[PDF\] Structure, Function and Management of Mangrove Ecosystems](#)

JE Ong, WK Gong - 2013 - [mangrove.or.jp](#)

... Page 9. vi Note from **ISME** This **book** is published under ITTO/**ISME** Project entitled Production of an Educational **Book** Series on Mangroves for Sustainable Management and Utilization of **Mangrove** Ecosystems [ITTO/**ISME** SPD 564/09 Rev. ...

Cited by 2 Related articles Cite More ▾

[\[PDF\] USEFUL PRODUCTS FROM MANGROVE AND OTHER COASTAL PLANTS](#)

S Baba, HT Chan, S Aksornkoae - [mangrove.or.jp](#)

... A retired Professor Emeritus and Vice-President of Kasetsart University, and a former President of Thailand Environment Institute, Bangkok, Thailand, he is currently the President of **ISME** (from 2011). ... vi Preface This **book** Useful Products from **Mangrove** and other ...

Related articles Cite More ▾

Figure 5 The books are indexed in Google Scholar



Figure 6 The event was publicized by two local newspapers in Sabah

### 4.3 ISME-ITTO Seminar

Following the launching ceremony, a seminar for target users was convened. During the seminar, the authors presented highlights of the books. Some 60 participants from Japan, Thailand, Vietnam and Malaysia attended the seminar (Figure 7).



**Figure 6** Participants of the ISME-ITTO Seminar (seated L to R: Tuan Fidelis Bajau, Prof. Sanit, Datuk Sam Mannan, Dr. Steve Johnson and Prof. Baba)

The seminar started with Introductory Remarks by Dr. Steve Johnson from ITTO. This was followed by highlights on *Continuing the Journey Amongst Mangroves* by Dr. Clough; *Structure, Function and Management of Mangrove Ecosystems* by Dr. Ong & Dr. Gong; *Useful Products from Mangrove and other Coastal Plants* by Dr. Chan; and Concluding Remarks by Prof. Sanit (President of ISME and Chairperson).

## **5. Assessment and Analysis**

This was probably one of the most efficient projects implemented by ISME. All activities were carried out and project outputs were produced on schedule with minimal problems encountered. These included technical aspects such as the drafting of book chapters and financial aspects such as the disbursement of funds from ITTO. The books were of high quality which meets international standards.

The successful and timely implementation of activities of the small project was largely or in part due to the following activities, staff members and organizations:

- Useful comments and suggestions for the project and on the initial draft chapters of the books were provided by the Executive Committee of ISME which functioned as the Project Technical Committee

- The dedication and untiring efforts of Dr. H.T. Chan (Project Coordinator) and Ms. Oshiro Nozomi (Administrative and Finance Officer) as technical staff, and the support provided by Dr. Steve Johnson (Project Manager) from ITTO
- Besides being the Project Coordinator, Dr. H.T. Chan was one of the authors of Book 3 and the Series Editor of ISME Mangrove Educational Book Series
- The close collaboration of Technical Experts, as technical staff and authors of the books, who have worked very hard to complete the chapters including proof-reading their text on schedule
- A review meeting between Dr. Steve Johnson (Project Manager) from ITTO, and Prof. Shigeyuki Baba and Ms. Nozomi Oshiro from ISME held in Iriomote, Japan, in October 2012, was most helpful in finalizing matters concerning the editing, design layout, printing and distribution of the books, and successful launching of the books and workshop for target users.
- The full cooperation of the Director and staff of the Sabah Forestry Department in Sandakan, Sabah, who have kindly provided the venue for the book launching and workshop for target users, including logistic support
- The procurement of additional funds by ISME from institutions and companies in Japan to cover the costs of printing and distribution of the books
- Refinement of project activities e.g. the decision by ISME to transfer the printing from Tokyo, Japan, to Kuala Lumpur, Malaysia to facilitate closer monitoring, quality check and expedient distribution of books

## **6. Conclusions and Recommendations**

This small project met all its objectives on schedule with no major constraints encountered. Overall, the project implementation was smooth and rewarding, and its high output to input ratio reflected its efficiency and productivity.

The devotion of time and effort by the Project Coordinator, Administrative and Finance Officer and Technical Experts as authors of the books has significantly contributed to the progress.

Useful comments and suggestions for the project and on the draft chapters of the books provided by the Executive Committee of ISME which functioned as the Project Technical Committee were critical during the initial phase of the project.

The review by the Project Manager from ITTO was beneficial to finalize matters concerning the editing, design layout, printing and distribution of the books, and successful launching of the books and workshop for target users.

Production of the French and Spanish versions of the books is envisaged as the next phase of the project, pending availability of funds. Dissemination of the French and Spanish versions is intended for target audiences in all relevant French- and Spanish-speaking countries.

## **References**

Chan, H.T. & Baba, S., 2009. *Manual on Guidelines for Rehabilitation of Coastal Forests damaged by Natural Hazards in the Asia-Pacific Region*. International Society for Mangrove Ecosystems (ISME) and International Tropical Timber Organization (ITTO), 66 pp.

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de Lacerda L.D. & Diop, E.S. (Eds.), 1993b. *Conservation and Sustainable Utilization of Mangrove Forests in Latin America and Africa Regions, Part II – Africa*. International Society for Mangrove Ecosystems (ISME), Okinawa, Japan.

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## **Responsible for the Report**

Signature:

Name: Prof. Shigeyuki Baba

Position: Executive Director of ISME

Date: 17 June 2013

## Annex 1

**Project Financial Statement**

Period ending on 31 May 2013

Project No.: SPD 564/09 Rev. 1(F)

Project Title: Production of an educational book series on mangroves for sustainable management and utilization of mangrove ecosystems

Unit: US\$

Components	Original Amount (A)	Expenditures To-date			Available Funds (E) (A-D)
		Accrued (B)	Expended (C)	Total (D) (B+C)	
<b>10 Project personnel</b>					
11. Project Coordinator (PC)	33,000		33,000.00	33,000.00	0.00
12. Secretarial support	24,000		24,000.00	24,000.00	0.00
19. component total	57,000	0.00	57,000.00	57,000.00	0.00
<b>20 Sub-contracts</b>					
21. Technical Experts (TE) as authors	45,000		45,000.00	45,000.00	0.00
29. component total	45,000	0.00	45,000.00	45,000.00	0.00
<b>30 Duty travel</b>					
31. Travel	18,000		14,864.04	14,864.04	3,135.96
32. DSA	2,400		4,406.30	4,406.30	-2,006.30
39. component total	20,400	0.00	19,270.33	19,270.33	1,129.67
<b>60 Miscellaneous</b>					
61. Type-setting and printing of books	8,000		11,785.28	11,785.28	-3,785.28
62. Meeting rooms and facilities	2,000		401.66	401.66	1,598.34
63. Auditing (project accounts)	4,000	2,000.00	0.00	2,000.00	2,000.00
64. Bank charges, postage, etc.	1,400		3,612.67	3,612.67	-2,212.67
69. component total	15,400	2,000.00	15,799.61	17,799.61	-2,399.61
Total 1	137,800	2,000.00	137,069.95	139,069.95	-1,269.95
<b>80. Project monitoring and administration</b>					
81. ITTO monitoring & review costs	1,000				
82. ITTO programme support	11,104				
Total 2	12,104				
<b>100. GRAND TOTAL</b>	149,904				

## Annex 2

**Project Cash Flow Statement**

Period ending on 31 May 2013

Project No.: SPD 564/09 Rev. 1(F)

Project Title: Production of an educational book series on mangroves for sustainable management and utilization of mangrove ecosystems

Component	Reference	Date	Amount	
			in US\$	in JPY
<b>A. Funds received from ITTO</b>				
1. First installment		2012/1/4	80,000.00	6,196,800
2. Second installment		2012/8/22	57,800.00	4,477,188
Total Funds Received:			137,800.00	10,673,988
<b>B. Expenditures by executing agency</b>				
10 Project personnel				
11. Project Coordinator			33,000.00	2,556,180
12. Secretarial support			24,000.00	1,859,040
19. component total			57,000.00	4,415,220
20 Sub-contracts				
21. Technical Experts (TE) as authors			45,000.00	3,485,700
29. component total			45,000.00	3,485,700
30 Duty travel				
31. Travel			14,864.04	1,151,368
32. DSA			4,406.30	341,312
39. component total			19,270.33	1,492,680
60 Miscellaneous				
61. Type-setting and printing of books			11,785.28	912,888
62. Meeting rooms and facilities			401.66	31,113
63. Auditing (project accounts)			2,000.00	154,920
64. Bank charges, postage, etc.			3,612.67	279,838
69. component total			17,799.61	1,378,758
Expenditures To-date:			139,069.95	10,772,358
Remaining Balance of Funds (A-B):			-\$1,269.95	¥98,370

Conversion rate used in this table is US\$1=JPY77.46, which is the average rate of exchange when the funds were received: 4 January 2012 (US\$1=JPY76.66), 22 August 2012 (US\$1=JPY78.26).

## Annex 3

**Project Financial Statement (Executing Agency's contribution)**

Period ending on 31 May 2013

Project No.: SPD 564/09 Rev. 1(F)

Project Title: Production of an educational book series on mangroves for sustainable management and utilization of mangrove ecosystems

Unit: US\$

Budget Components	Original Amount (A)	Expenditures To-date		
		Accrued (B)	Expended (C)	Total (D) (B+C)
<b>10 Project personnel</b>				
13. Secretarial support (Part-time)	11,250		12,000	12,000
14. Secretarial support (administrative issues)*	22,500		24,000	24,000
19. component total	33,750	0.00	36,000	36,000
<b>20 Sub-contracts</b>				
21. Technical Experts (TE) as authors	0		0	0
29. component total	0	0.00	0	0
<b>30 Duty travel</b>				
31. Travel	10,500		15,093	15,093
32. DSA	2,160		6,505	6,505
39. component total	12,660	0.00	21,597	21,597
<b>60 Miscellaneous</b>				
61. Type-setting and printing of books	0		0	0
62. Meeting rooms and facilities	3,500		2,340	2,340
63. Auditing (project accounts)	0		0	0
64. Bank charges, postage, etc.	1,600		466	466
69. component total	5,100	0.00	2,806	2,806
Total 1	51,510	0.00	60,404	60,404
<b>70. Executing agency management costs</b>	20,820		15,764	15,764
<b>100. GRAND TOTAL</b>	72,330	0.00	76,168	76,168

\*: Budget item #14 Secretarial support (administrative Issue): in-kind contribution

Annex 4

**Contents of Book 1**

ISME and ITTO                      Preface                      Note from ISME  
About the Authors                  Acknowledgements

Chapter 1 INTRODUCTION

Chapter 2 MANGROVE DISTRIBUTION AND ENVIRONMENT

Global Distribution  
Latitudinal Gradients and Limits  
Patterns Associated with Rainfall and Aridity  
Local Zonation Patterns  
Environmental Settings of Mangroves

Chapter 3 LIVING WITH STRESS

Coping with Salt  
Coping with Anaerobic Soils  
Reproduction and Dispersal

Chapter 4 OTHER LIVING COMPONENTS

Faunal Components  
Other Plant Components

Chapter 5 UTILISATION AND VALUES OF MANGROVES

Mangrove Goods and Services  
Mangrove-Derived Products  
Other Services Provided by Mangroves

Chapter 6 THREATS AND ENVIRONMENTAL IMPACTS

Conversion to Agriculture and Salt Ponds  
Conversion to Aquaculture  
Urban Expansion and Industrial Development  
Pollution  
Exploitation for Timber and other Wood Products  
Climate Change

Chapter 7 CONSERVATION AND MANAGEMENT

Management Frameworks  
Conservation Strategies  
Afforestation and Rehabilitation  
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Some Useful Links to Online Materials

References

Glossary of Terms

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About the Authors      Acknowledgements

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2.1 GEOMORPHIC FACTORS

Tides and Tidal Inundation  
Sedimentation and Erosion  
Sea Level Change  
Soils

2.2 BIOTIC FACTORS

Plant Adaptations  
Adaptation to the Saline Environment  
Adaptation to the Soft Substrate/Aquatic Environment  
Animal Adaptations

Chapter 3 ECOSYSTEM FUNCTION

3.1 PRODUCERS

Primary Production by Vascular Plants  
Gross Primary Production  
Net Primary Production  
Primary Production of Algae

3.2 CONSUMERS (HERBIVORES AND CARNIVORES)

The Grazing Food Chain  
Decomposers  
The Detrital Food Chain  
Export and Burial

Chapter 4 SOCIO-ECONOMIC AND MANAGEMENT CONSIDERATIONS

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Mangrove Services

4.2 VALUE OF MANGROVES

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Sustained Use Management  
Unsustainable and Conversional Use

References

Annex 6

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About the Authors                  Acknowledgements

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Mangrove Plants  
Other Coastal Plants  
Uses and Users  
Wood Products  
Non-Wood Products  
Case Studies

Chapter 2 TRADITIONAL WOOD PRODUCTS

Fuel Wood  
Charcoal  
Poles  
Wood for Construction  
Wood Handicrafts  
Minor Wood Products

Chapter 3 RECENT WOOD PRODUCTS

Wood Products  
Charcoal Products

Chapter 4 TRADITIONAL NON-WOOD PRODUCTS

Products from *Nypa* Leaves  
Products from *Nypa* Sap  
Beverages  
Edible Plant Parts  
Bark for Dyeing  
Wine Additives  
Fodder and Forage  
Honey and Wax  
Handicrafts and Ornaments  
Fishing using Plants

Chapter 5 RECENT NON-WOOD PRODUCTS

Herbal Remedies  
Minor Non-Wood Products

Chapter 6 MANAGEMENT IMPLICATIONS

Uses and Users  
Wood Products  
Non-Wood Products  
Sustainable Management

References