

# SARAWAK BIODIVERSITY CENTRE

## ANNUAL REPORT

TRADITIONAL KNOWLEDGE DOCUMENTATION  
BIODIVERSITY GARDEN  
R&D BIODISCOVERY  
AWARENESS & APPRECIATION



Sarawak  
Biodiversity Centre

# 2013

Cover Photo: White amorphous needle-like natural compound purified from a plant for bioassay screening.

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## 02

### Vision & Mission

- **Vision**

Attaining Biodiversity Research Excellence

- **Mission**

To Discover and Harness the Benefits of Biodiversity

- **Tagline**

Biodiversity for a Better Tomorrow



## Sarawak Biodiversity Council



**YB Tan Sri Datuk Amar Haji  
Mohamad Morshidi Bin  
Abdul Ghani**

*Chairman, Sarawak  
Biodiversity Council /  
State Secretary of Sarawak*



**YBhg Datu Haji Sudarsono  
Osman (w.e.f. 03.01.2012)**

*Deputy Chairman, Sarawak  
Biodiversity Council /  
Permanent Secretary,  
Ministry of Resource  
Planning and Environment*



**Dr Rita Manurung**

*Secretary, Sarawak  
Biodiversity Council /  
Chief Executive Officer,  
Sarawak Biodiversity Centre*



**YA Datu Haji Abdul  
Razak Tready**

*Council Member, Sarawak  
Biodiversity Council /  
State Attorney General*



**YBhg Dato Sri Ahmad  
Tarmizi Bin Haji Sulaiman**

*Council Member, Sarawak  
Biodiversity Council /  
State Financial Secretary*



**YBhg Datu Haji Misnu Bin  
Haji Taha**

*Council Member, Sarawak  
Biodiversity Council /  
Deputy State Secretary (ASCA)*



**YBhg Datu Haji Ali  
Bin Yusop**

*Council Member, Sarawak  
Biodiversity Council /  
Director of Forests*



**Mr Peter Sawal**

*Council Member, Sarawak  
Biodiversity Council /  
Controller, Natural Resources  
& Environment Board (NREB)*

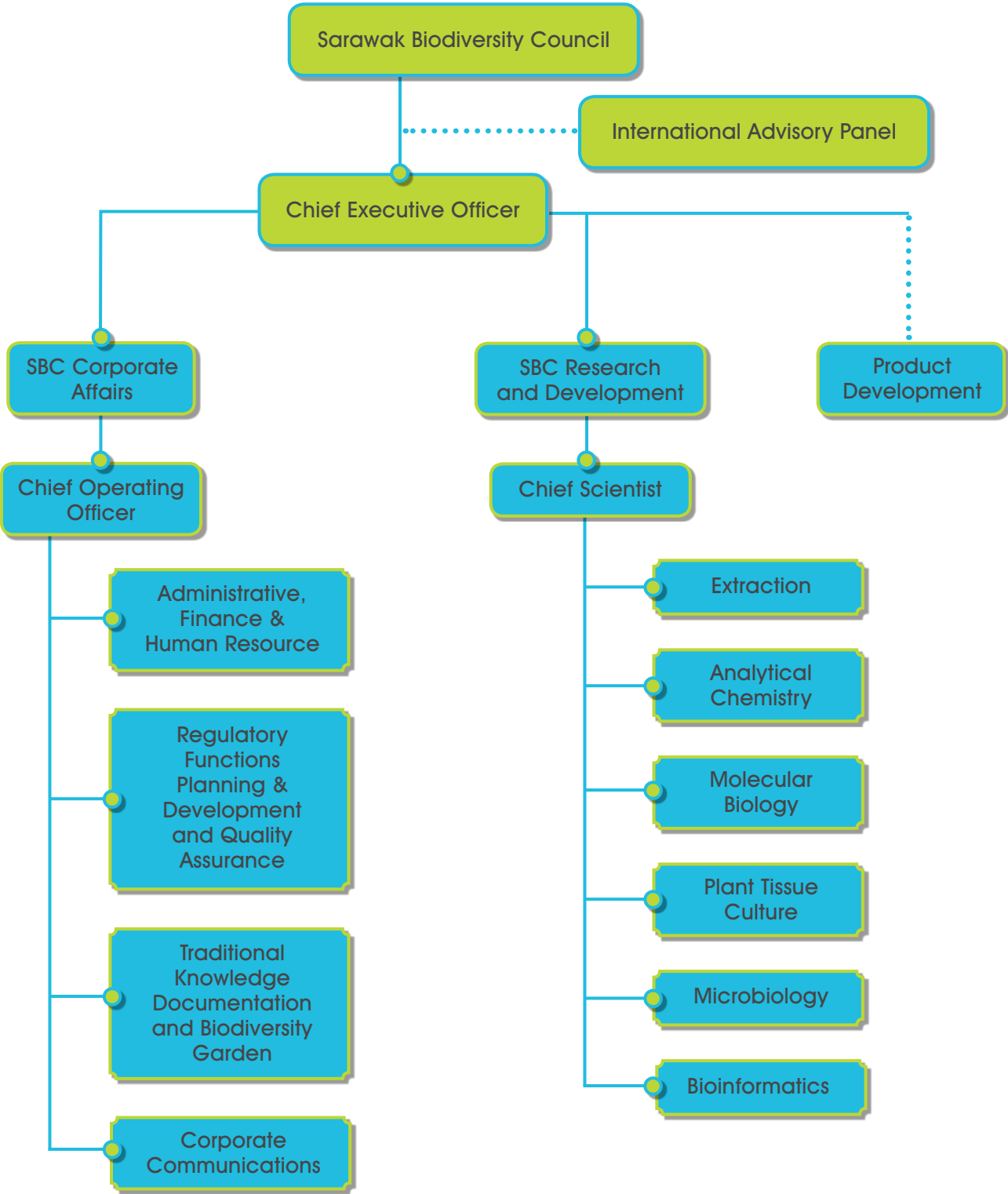


**Mr Lai Kui Fong**

*Council Member, Sarawak  
Biodiversity Council /  
Director of Agriculture*

# 04

## Organization Structure



## R&D Biodiscovery Programme



# 06

SBC's R&D Project focuses on making discoveries from biological resources that would lead to the development of herbal therapies, nutraceuticals, cosmaceuticals for health-care and pharmaceutical drugs for countering diseases such as cancer and infectious agents. The programme also aims to discover chemicals and enzymes from Sarawak's biological resources that would be useful over a broad range of applications as industrial related products like essential oils, bio-pesticides and commercial dyes.

The R&D Project is supported by seven well-equipped and specialized laboratories (extraction, biochemistry, microbiology, molecular biology, plant tissue culture, analytical chemistry and bioinformatics), staffed with trained scientists who work in a conducive environment intended for innovative research focusing on the biodiversity.

With its R&D facilities and a systematic approach to research on biodiversity in Sarawak, SBC is able to provide the State with the means to bioprospect its biodiversity through R&D and share the benefits made from the discoveries with the people. The discoveries will consequently provide a pipeline of bio-products for the bioindustry to jump-start and generate future economical returns and revenues for the State.



## Project Objectives

- ✔ To establish a unique library of natural products from useful plants and microbes
- ✔ To screen for anti-cancer, anti-fungal, anti-bacteria, anti-inflammation and anti-protease compounds from our natural products library
- ✔ To screen for lipase activity and immuno-modulatory proteins/compounds from natural product library
- ✔ To isolate and sequence genes from useful microbes that have medicinal and industrial applications
- ✔ To develop plant tissue culture capabilities for mass propagation and genetic transformation
- ✔ To develop analytical skills for structural determination of bioactive compounds
- ✔ To train and develop the State's human resources in the field of biotechnology
- ✔ To attract scientific collaboration and investments from biotech/pharmaceutical companies
- ✔ To assist in the development of the bioindustry in the State by providing potential bio-products for commercialization





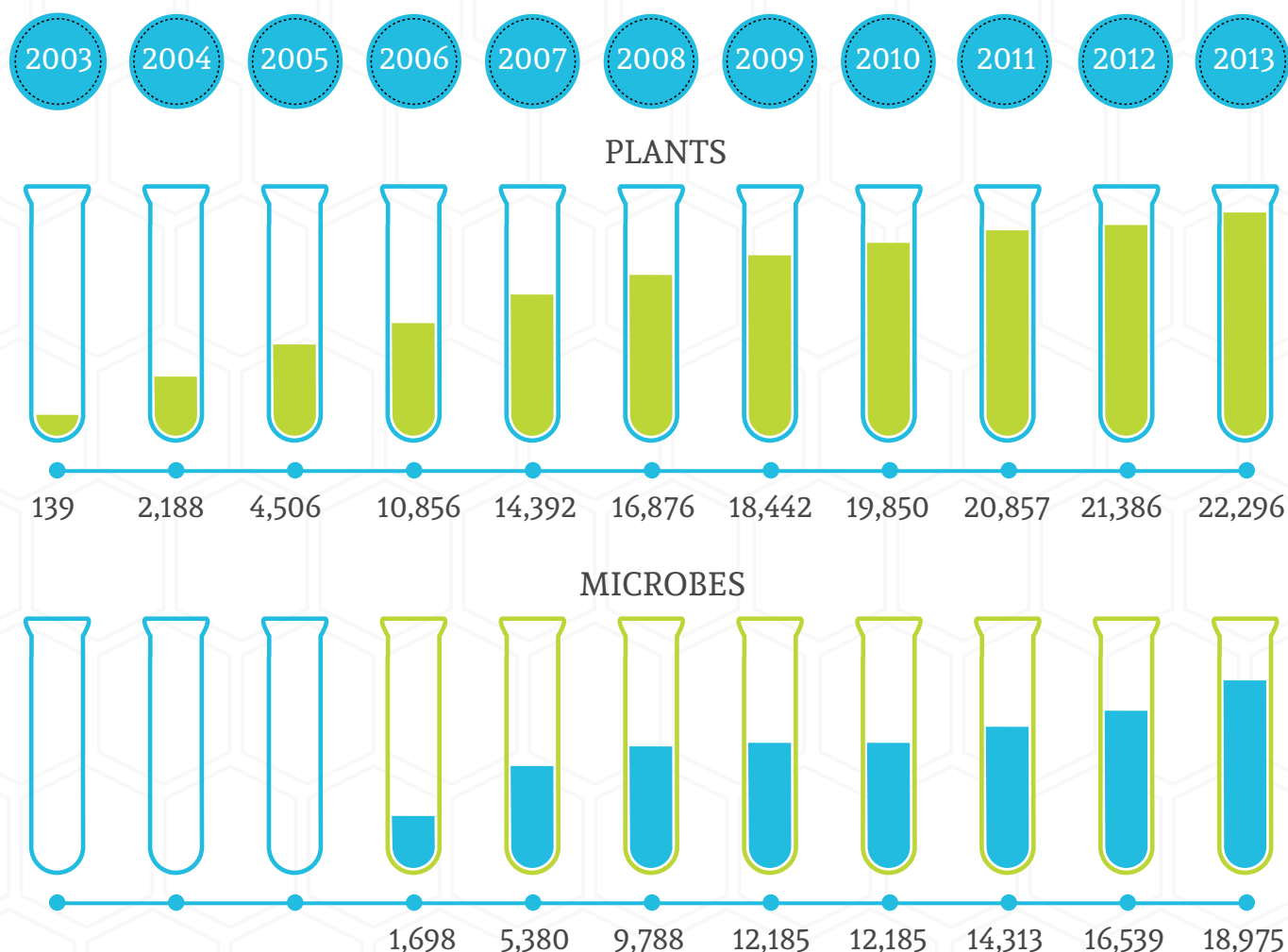
## *Natural Product Library*

The Natural Product Library (NPL) serves as a scientific platform for SBC's R&D Programme and research collaborations. The library consists of extracts from plants and microbes which are systematically collected and screened in-house or provided to collaborators to be screened for various kinds of bioactivities including cytotoxicity activity, anti microbial properties and chemical ingredients that are useful for cosmetic and nutritional products. SBC's collaborators consist of academicians, research institutions, biotech, pharmaceutical, food and flavour companies.



## 08

The following illustration shows the number of extracts collected and accumulated each year in the NPL from plant and microbes.



## Sample Extraction

The annual target for extraction laboratory to produce 2,000 plant extracts per year has been achieved. In year 2013, a total 3,121 plant extracts were deposited in the NPL. The total cumulative number of extract from year 2003 until 2013 are 22,296. In year 2013, a total 314 of extracts were sent out for screening under various collaboration agreements.

## Analytical Chemistry

The analytical chemistry team is responsible to profile, isolate and elucidate the bioactive compound for potential projects. In year 2013, the main projects were:

- **Aglaia Project**

- ✔ Big bulk extract production for *Aglaia* sp. and chemical profiling for 326 extracts of *Aglaia* samples.
- ✔ Isolation, extraction, fractionation and elucidation the bioactive compounds (silvestrol and its derivatives) from *Aglaia* spp. and endophytes fungi which is grow inside the *Aglaia* tissue.

- **Isolation of prolyl oligopeptidase (POP) inhibitor**

- ✔ Isolation and fraction of the bioactive compound from two fungus that are known to produce prolyl oligopeptidase inhibitor was carried out.
- ✔ Active fraction has been identified and structural elucidation will be study to confirm the identity of active compounds.

- **Phytochemicals study on the potential plants**

- ✔ *Costus speciosus*, *Phaius tankervilleae*, *Anisophyllea disticha* (Mertaba Ribu), *Alpinia borneensis* - Anticancer application
- ✔ *Homalomena* sp. (Kemunyang) - Cosmetic preservation
- ✔ *Lansium domesticum*, *Goniotalamus lanceolatus* - Anti-Malarial and Anti-Chikungunya

- **Chemical profiling for collaboration projects**

- ✔ Profiled 400 extract of flavouring plants for PepsiCo collaboration.
- ✔ Profiled 217 extract of microbe for Novartis, University Queensland and Singapore Immunology Network (SigN) collaborations.

## Product Development

Aromatic plants are the main focus under the Product Development Programme. Up to year 2013, 215 essential oils were collected from aromatic plants in Sarawak and deposited in NPL. Three plants known locally as Pahkak, Bunga Ta'ang and Sarang Bejit were selected for potential commercialisation.





## ● Scented Plants Project

- Established Standard Operation Procedure (SOP) for scent trapping and SBC Scents Database.
- Fragrant plants involved: *Hedychium coronarium*, *Phalaenopsis bellina*, *Coelogyne asperata*, *Pomatocalpa kunstleri*, *Vanda scandens*, *Bauhinia* sp., *Spathiphyllum cannifolium*, *Anonona muricata* (Soursop fruit), *Crinum asiaticum* (Bakong), *Carica papaya* (Papaya flower), *Orchidaceae* (Tutud Kasian), *Hybrid orchid*, *Bromheadia finlaysoniana* and *Nepenthes chaniana*.



## Plant Tissue Culture

In year 2013, the plant tissue culture team was responsible for studies on propagation of plants for development. These included *Aglaia* spp., *Litsea cubeba* (Pahkak), *Adenosma nelsonioides* (Bunga Ta'ang) and *Torenia* sp. (Sarang Bejit).

## Molecular Biology

The molecular biology team is responsible to screen for potential extracts and fraction for anti-cancer activities and to study on potential project through molecular approach. The highlighted projects under the molecular laboratory are:

- Construction and expression of F0274 that is responsible for human prolyl oligopeptidase (hPOP) inhibitor gene.
- PKS (polyketide synthase) profiling of rare isolates of actinomycetes.
- Molecular identification of plant species collected for PepsiCo-SBC Collaboration and *Aglaia* project.
- Metagenomic Project.
- Metatranscriptomic Project.
- Anticancer compound screening in collaboration with Center for Natural Products and Drug Research (CENAR).







## Microbiology

The microbiology team's annual target to produce 2,000 microbial extracts under the 10MP was achieved for the year 2013.

A total of 1,064 actinomycetes and 1,072 fungal strains with extracts were deposited to SBC Microbial Library. The number of extracts for actinomycetes

and fungi accumulated from year 2006 to year 2013 are 12,444 and 6,531. The total cumulative number of actinomycetes and fungi strains in the library from year 2006 to year 2013 have reached 11,471 and 6,229 respectively.

Actinomycetes strains were isolated from Ulu Mentawai (98), Bako National Park (40), paddy fields [Kpg Payang, Padawan and Kpg Jenan, Serian] (375), Loagan Bunut National Park (221), Paya Maga (160), Mount Taiton, Bau (170).

Fungi strains were isolated from Mount Taiton, Bau Limestone hills (309), Loagan Bunut National Park (229), Ulu Mentawai (145), Pu'long Tau National Park (142) and Paya Maga (131), paddy fields [Kpg Payang, Padawan and Kpg Jenan, Serian] (69), Bako National Park (36) and Jenan Village, Serian (11).

Under the microbial bioassays conducted, 525 and 153 hits were detected from 982 actinomycetes and 435 fungal extracts respectively.

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## R&D Collaboration

- ***Antimicrobial and cytotoxicity screening project with University of Queensland***

A collaboration with University of Queensland to screen for anti-microbial (fungal and bacterial) and cytotoxicity (HepG2 & HEK293) compounds with selected extracts from SBC's Natural Product Library.

- ***Cytotoxic Compounds projects (Cancer Research Initiatives Foundation-CARIF)***

An extension of the Memorandum of Agreement (MoA) with CARIF to carry out research on plant extracts for cytotoxic compound isolation and identification was signed.

- ***Novartis***

A collaboration with Novartis to transfer some of the rare actinomycetes for genome sequencing and send of microbial extracts and pure compounds for testing against pathogens.

- ***PepsiCo***

A two-year service agreement has been signed between SBC and PepsiCo in October 2011 for screening of sweeteners and taste modifiers from Sarawak plants. The contract was renewed for another two years in September 2013.

- ***Mitsubishi Corporation***

An Agreement was signed on 7 December 2012 between SBC and Mitsubishi Corporation for a two years project. The project is focuses on isolation of algal for the biofuel research.

## Traditional knowledge Documentation Programme





The Sarawak Biodiversity Centre (Amendment) Ordinance 2003 entrusts SBC to facilitate Traditional Knowledge (TK) Documentation of the knowledge and practice relating to the uses and management of biodiversity among the many indigenous communities in the State. This is carried out through its TK Documentation Programme and implemented through creating awareness, capacity building and documentation activities facilitated by SBC.

● ***SBC has carried out six (6) Consultative Meetings at the following Districts/areas:***

- Murum Area
- Padawan Sub-District
- Siburan Sub-District
- Long Tuyo, Lawas District
- Niah Subdistrict
- Sibuti Subdistrict

● ***To-date, SBC has conducted the 1st Traditional Knowledge Documentation Workshop at:***

- Rh Entakong, Nanga Medamit (Iban)
- Kpg Chupak, Siburan (Bidayuh)
- Kpg Simuti, Padawan (Bidayuh)
- Kpg Bidang, Limbang (Bisaya)
- Long Wat, Murum (Penan)
- Long Palai, Ulu Baram (Kenyah)
- Rh Ado, Tatau (Punan)
- Kpg Pangtray, Daro (Melanau)

In total, SBC has conducted the Traditional Knowledge Documentation programme in 72 villages/areas in Sarawak (15 ethnic communities). Of these, a total of 47 villages have started the documentation and collection of useful plants. The total number of plants documented and collected from these villages is 4,815 plants from 1,251 species (identification is still on-going).

SBC has also carried out the following field work under the various projects:

● ***SBC-PEPSICO Collaboration***

- Long Sebangan Asal, Lawas
- Long Pelutan, Baram
- Rh Bajau, Julau
- Kampung Semban, Padawan
- Rh Bana, Sebauh
- Rh Entakong, Nanga Medamit
- Rh Ajan, Merapok
- Rh Bajau, Julau
- Nanga Sumpa, Batang Ai

- Julau District
- Rh Entakong, Nanga Medamit

● ***SBC Aromatic Plants Inventory Project***

- Long Kerebangan & Long Telingan, Lawas
- Kpg Semban

● ***TK Follow-up***

- Long Iman & Batu Bungan

● ***Aglaia Collection***

- Sampadi
- Pulong Tau National Park

.....

**Communities Involved in TK Project**

● ***Bidayuh Communities***

- Kampung Semadang, Penrissen
- Kampung Kiding, Padawan
- Serin Area, Kuching
- Bung Jagoi, Bau
- Kampung Semban
- Kampung Lanchang
- Bau District
- Serian District
- Kpg Chupak & Kpg Skuduk
- Kpg Simuti

.....

● ***Iban Communities***

- Rh Lulut, Kapit
- Rh Skatap, Betong
- Rh Nyambong, Selangau
- Rh Emak, Kapit
- Rh Changgai, Song
- Rh Simon, Lubok Antu
- Rh Baia Panjai, Batang Ai
- Rh Bana, Sebauh Sub District
- Rh Rapak Tepus, Sri Aman
- Simunjan
- Tatau District
- Pakan Sub District
- Marudi District
- Kanowit Subdistrict
- Kpg Sual (mixed with Malay community)



### ● *Kayan Communities*

- Long Bedian, Baram
- Sg Asap, Belaga
- Belaga Subdistrict
- Long Palai, Ulu Baram

### ● *Kenyah Communities*

- Long Pelutan/Julan, Baram
- Long Ikang, Baram
- Long Amo, Belaga

### ● *Kedayan Community (with Iban and Lun Bawang Communities)*

- Merapok Area (Rh Ajan)

### ● *Tabun Community*

- Kpg Medalam, Nanga Medamit

### ● *Lun Bawang Communities*

- Long Semado, Lawas
- Long Telingan, Lawas
- Long Kerebangan, Lawas
- Ba'Kelalan, Lawas
- Long Sebangang Asal
- Long Sukang/ Long Tuyu

### ● *Kelabit Communities*

- Bario
- Pa'Ukat, Bario
- Pa'Lungan, Bario
- Pa'Derung, Bario
- Long Seridan

### ● *Bisaya Communities*

- Batu Danau, Limbang
- Limbang Area
- Kpg Bidang, Limbang

### ● *Berawan Community*

- Long Terawan, Mulu

### ● *Salako Communities*

- Kampung Pueh, Lundu
- Lundu/Sematan Area

### ● *Penan Communities*

- Long Iman, Mulu
- Batu Bungan, Mulu
- Long Latei
- Pa'Barei
- Long Wat, Murum

### ● *Malay Communities*

- Kampung Moyan Laut, Asajaya
- Kampung Salak, Santubong
- Buntal-Santubong Area

### ● *Melanau Communities*

- Kpg Jebungan, Mukah
- Kpg Jemoring, Matu
- Daro District
- Belawai SubDistrict
- Dalat District
- Matu District
- Kpg Pangtray, Daro

### ● *Punan Community*

- Rh Ado, Tatau



**COMMUNITY****Bidayuh**

Bung Jagoi, Bau  
Kampung Kiding  
Kampung Semadang  
Kampung Semban  
Kawasan Serin  
Kampung Lanchang, Serian  
Kampung Chupak & Skuduk

1

*Total Plants Collected*

46  
510  
311  
124  
17  
44  
14

1,066

**Iban**

Rh Skatap, Betong  
Rh Nyambong, Selangau  
Rh Emak, Kapit  
Rh Changgai, Song  
Rh Simon Buei, Lubok Antu  
Rh Bana, Sebauh  
Rh Lulut, Kapit  
Rh Rapak Tepus, Sri Aman  
Rh Bajau, Julau  
Nanga Sumpa, Batang Ai  
Kampung Sual, Simunjan  
Ulu Mentawai Expedition  
Rh Entakong, Nanga Medamit

2

276  
89  
89  
86  
86  
70  
55  
33  
71  
23  
29  
51  
54

1,012

**Kayan**

Rh Losong  
Long Bedian

3

81  
75

156

**Kelabit**

Pa' Derung  
Pa' Lungan  
Pa' Ukat

4

12  
292  
156

460

**Kenyah**

Long Pelutan  
Long Ikang  
Long Palai  
Long Amo, Belaga

5

127  
41  
13  
47

228

**Lun Bawang**

Ba'Kelalan  
Long Kerabangan  
Long Telingan  
Sebangang Asal  
Long Tuyu \*Paya Maga Expedition

6

28  
183  
119  
49  
137

516

**Melanau**

Kampung Jebungan  
Kampung Pangtray  
Kampung Jemoreng

7

79  
24  
19

122

COMMUNITY

Penan

- Long Iman
- Batu Bungan
- Long Latei
- Long Wat
- Long Seridan

8

Total Plants Collected

- 528
- 452
- 6
- 31
- 9

1,026

Punan

- Rumah Ado

9

- 27

27

Salako

- Kampung Pueh

10

- 80

80

Kedayan (with Iban & Lun Bawang Communities)

- Merapok Area (at Rh Ajan)

11

- 62

62

Tabun

- Kampung Kuala Medalam, Nanga Medamit

12

- 30

30

Bisaya

- Kampung Bidang

13

- 30

30

TOTAL

4,815

Number of plants collected from the various locations in Sarawak





## *Traditional Knowledge (TK) Headhouse and Propagation Facility*

The TK headhouse and propagation facility aims to fulfil the increasing needs on plant research, plant propagation and raw materials at SBC. The objectives of the TK headhouse are to serve as a place to conduct experimental of potential useful plants and as ex-situ conservation to maintain the population of useful plants for SBC's awareness & appreciation programme as well as SBC R&D programme.

The construction of the TK headhouse and propagation facility began on 18 February 2013 and was expected to be completed on 17 August 2013. However, a landslide that occurred due to unforeseen bad weather extended the completion of the TK headhouse and propagation facility to 14 March 2014.

TK headhouse and propagation facility provides three specific conditions in propagating the plants. The fog room is equipped with a humidity sensor controller to keep the room in a foggy environment and is suitable for succulent and sensitive plants. It supplies a very high relative humidity (90%-95%) and low temperature for the plants to root. The mist room is used for plant cutting for promoting rooting with the humidity between 40%-60% which can help to reduce water loss from the plants. The propagation room is for plants to be acclimatized to the surrounding humidity and temperature.





## Biodiversity Garden Programme







The Biodiversity Garden programme is implemented to set up the physical structure of a nursery in SBC, identify and collect plants to be grown and assessed to provide their basic physiological and environmental requirement, and to provide plants for SBC's garden and Biodiversity Awareness and Appreciation programme.

This programme also supports SBC's Traditional Knowledge Documentation Programme and R&D Programme.

Emphasis is given to the collection, propagation and planting of Sarawak's indigenous flora, particularly plants that are useful to the indigenous communities in the State.

## Achievements

For Year 2013, the number of plants in SBC's Laila Taib Ethnobotanical Garden reached 458. Overall, a total of 91 families with 302 species of plants are planted in the garden.

In January 2013, the media in the planter boxes garden were removed and replaced. The plants were then replanted according to different local communities; Bidayuh, Penan, Iban, Melanau, Tabun, Kelabit, Kayan, Kenyah and Lun Bawang from various villages in Sarawak.





## Biodiversity-Biotechnology Awareness & Appreciation Programme





# 22

SBC's Biodiversity-Biotechnology Appreciation and Awareness Programme is targeted at creating awareness and appreciation towards the State's rich biodiversity, and biotechnology initiatives among the general public of Sarawak.

Each activity held under this programme (Appreciation and Awareness visits, Public Awareness Workshops, Lecture, Exhibitions, Seminar, Forums and Dialogue sessions) is tailored to suit the needs of the target participants.

In Year 2013, SBC organised and participated in the following activities under this programme:

	Activity	Targeted KPI for 2013	Number of Activities Achieved in 2013
1	Awareness & Appreciation Visits 2013	12 Visits p/year	23 visits (schools and organisations)
2	Public Awareness Talks/Workshops	10 Public Talks p/year	11 talks/workshops
3	Seminars/Forums/Dialogue Sessions	1 Seminar/Conference/Forum p/year	-
4	Participation in School Programme	2 programmes	-
5	Participation at Exhibitions	4 exhibitions p/year (2 national and 2 local)	12 exhibitions
6	VIP and Corporate Visits	-	33 visits
7	Press releases/Articles/Features	12 articles p/year	44 press releases/articles published
8	Other activities	-	10 activities
9	SBC Publication/Promo Materials	1 New Corp Video, Brochure Kit	1 General Brochure (schools) 1 General Brochure (Corp) Misc Design of SBC Posters 3 Bookmarks Button Badges SBC LitSara® Corporate Gift Set SBC Canvas Bag SBC Notebook
10	SBC Open Day	1 Event	Carried out in May 2013

• A detailed listing of these activities is attached in appendices for reference.

## Plans for 2014

For Year 2014, SBC targets the following:

1	Awareness & Appreciation Visits	12 visits
2	Public Awareness Talks/Workshops	10 public talks
3	Participation in Exhibitions	4 exhibitions (2 national and 2 local)
4	Press Releases/Articles/Features	12 articles
5	SBC Publications/Promo Materials	1 New Corp Video, Brochure Kit
6	Participation in School Programmes	2 programmes
7	SBC Open Day	1 event
8	Seminar/Conference/Forums	1 Seminar



In the addition to its on-going public awareness visits, school talks and public talks, SBC plans to also organize workshops on Nature Photography to be facilitated by Prof Yong Hoi Sen, Academy of Sciences Malaysia and Science and Communication to be facilitated by Dr Ahmad Ibrahim, Academy of Sciences Malaysia.



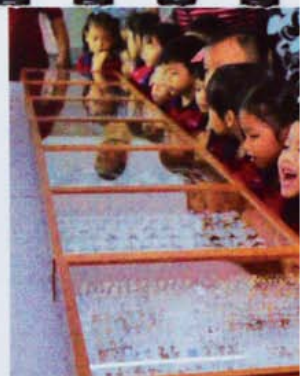


# 24

## Highlight Events



# Sarawak Biodiversity Centre



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		<b>April</b> Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>June</b> Su Mo Tu We Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<i>Labour Day</i> 1  1 Rejab 1435	2
4	5	6	7	8	9
4	5	6	7	8	9
11	12	13	14	15	16
11	12	13	14	15	16

*school visit!*

*field trip!!*



## SBC Teambuilding, Health and Fitness Programme 2013



Since year 2008, SBC has held annual teambuilding programmes for all SBC personnel to foster team spirit and leadership abilities within the organisation.

In Year 2013, the Management made the element of healthy living and fitness as part of SBC's corporate culture. With this in mind, the annual teambuilding programme was customised to include activities that promote health awareness and fitness.

The programme which was carried out on 10, 11 & 12 October at Santubong Resort was customised as follows:

**Day 1** : *Teambuilding by GEM Consultancy*

**Days 2 & 3** : *Fitness Activities by Level Up Fitness*

*Health Screening by Shine Pharmacy and Normah*

### Medical Specialist Centre:

● BMI      ● Cholesterol      ● Blood Glucose      ● Blood Pressure

The health screening was carried out so that SBC personnel are made aware of their basic health conditions and are able to take necessary remedial action, should it be needed e.g. high cholesterol, high blood pressure.

Level Up Fitness carried out exercise programmes that covered cardio-exercises and muscle toning such as body combat, zumba, body balancing which SBC personnel could also continue to practice at home.

The feedback towards the health and fitness elements were encouraging with SBC personnel requesting for emphasis on these two elements in future teambuilding events, and more outdoor activities to be incorporated.



# 26

## SBC Biodiversity Day 2013

In conjunction with the International Day on Biological Diversity 2013, SBC organized SBC Biodiversity Day 2013 on 18th -19th May 2013 at its premises.

The main objective of this event was to promote awareness of, and appreciation for, Sarawak's local biodiversity among the younger generation and members of the public.

The event was officiated by YB Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Abdul Ghani, State Secretary of Sarawak and Chairman of the Sarawak Biodiversity Council.

Also present at the opening were YBhg Datu Haji Sudarsono Osman, the Permanent Secretary of Ministry of Resource Planning and Management, YBhg Datu Haji Ali Bin Yusop, the Director of Forests, En Abdul Kadir Bin Rais the Assistant Commissioner of Prison, and Mr Mohamad Norjayadi Bin Tamam, the Director of Malaysian Productivity Centre, Sarawak.

Among the activities that were carried out throughout the two (2) days were colouring contest for children, pottery painting contest for children, biodiversity face painting, origami and paper art, eco snakes and ladders, clown appearances, R&D lab display and demonstration, mini-exhibition on Traditional Knowledge (TK), display of zoological and herbarium specimens, demonstration by the TK communities, Public Awareness talks, health screening activities, and aquatic plants and indigenous fishes display.

The two days event attracted 700 visitors which included invited guests, the general public, the media, colouring and pottery contests participants, students, scout groups, parents and teachers.



1 YB Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Abdul Ghani and Dr Rita Manurung with the colouring contest winners

2 YB Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Abdul Ghani officially launches SBC Biodiversity Day 2013 witnessed by YBhg Datu Haji Sudarsono Osman and YBhg Datu Haji Ali Bin Yusop.

3 SBC staff explaining SBC's Scent Trapping method to YB Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Abdul Ghani





4



5



6



7

4 YB Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Abdul Ghani visiting the Traditional Knowledge Documentation Programme's communities booths.

5 Participants giving their full attention during a talk on Flowering Plants by Peter Boyce.



8



9



10

6 A student tries a science game.

7 Preparing origami samples to attract children to take part in the activity.

8 Uncle Jerry the clown gives out balloons to the children.

9 Mdm Yee, a volunteer does face painting of biodiversity motifs on a visitor.

10 Participants concentrating on their artwork during the Pottery Painting Contest.



## Hari Harta Intelek 2013



- 1 Smelling dried *Litsea cubeba* fruits locally known as Pahkak by the Bidayuh community.
- 2 Members of the public viewing the LitSara® prototype products displayed at SBC's booth.
- 3 Prototype products exhibited in SBC booth during the Hari Harta Intelek 2013.

On 13-15 June 2013, the Sarawak Biodiversity Centre (SBC) participated in Hari Harta Intelek 2013 at the Melaka International Trade Centre (MITC) in Ayer Keroh, Melaka.

This event was organized by the Malaysia Intellectual Property Organization (MyIPO) and the Ministry of Domestic Trade, Co-operatives and Consumerism (KPDNKK).

The official launching ceremony which held on the first day of the event was graced by YAB Datuk Wira Ir. Hj. Idris bin Hj. Haron, the Chief Minister of Melaka.

Various activities were carried out throughout the expo such as IP Run, Treasure Hunt, IP Concert, Bintang Retro Contest, Oration Competition, Public Talks and Forum.

SBC's exhibit was grouped under the Sarawak Pavilion which also included ICT Unit, Pustaka Negeri Sarawak, Land and Survey Department and Ministry of Modernization Agriculture (MOMA).

During the exhibition, SBC displayed LitSara® prototype products which included liquid soap, hand soap, floor wash, shower cream, insect repellent, anti-oxidant spray and essential oils, as well are related posters.

More than 200 visitors visited SBC's display throughout the event.



- 4 The Sarawak Pavillion members consisted of Information, Communication and Technology Unit Department, Sarawak Biodiversity Centre, Land and Survey Department and Department of Agriculture, Sarawak.

## SBC Integrity and Motivational Day cum Annual Dinner 2013

Each year, the Sarawak Biodiversity Centre (SBC) organises an annual dinner to celebrate the efforts of its team. In order to add value to the celebration SBC came up with the concept of a Motivation Day and Annual Dinner, during which the management invites speakers to talk to the staff on various aspects of the Sarawak Civil Service and how they can motivate themselves in work and in own personal lives.

In Year 2013, SBC incorporated Integrity into its annual do. The once-a-year affair is now known as SBC Integrity & Motivational Day, and Annual Dinner.

The speakers for this year were Cikgu Mohamad Haji Arshad of Jabatan Ketua Menteri Sarawak who spoke on the Shared Values of Sarawak Civil Service and also Sarawak Biodiversity Council's Deputy Chairman and Permanent Secretary of the Ministry of Resource Planning and Environment, YBhg Datu Haji Sudarsono Osman who gave us tips and pointers on Leadership and Integrity.

Later in the evening, members of SBC and friends of SBC (those who work closely with SBC) were feted to a glamorous dinner event. The theme, Red Hot was enthusiastically embraced by all members of SBC and invited guests and they came dressed up in their best red outfits.

Members of SBC also sportingly put up dance and singing performances, games, quizzes and even a catwalk to vote for the best dressed for the night.

The dinner event also saw the presentation of certificates for outstanding work performance (Anugerah Perkhidmatan Cermelang), for publication in scientific and nature journals, SBC's Photography Contest, as well as for those who had achieved "Sick-leave-free" days over the years.



- 1 YBhg Datu Haji Sudarsono Osman speaks on leadership and integrity
- 2 The shared values of the Sarawak Civil Service explained by Cikgu Mohamad Haji Arshad
- 3 A happy and motivated team at SBC being led in activities by the speakers.

## Awards and Recognition Presented to SBC Staff

### ● SBC Photography Contest 2013

- |                             |                            |
|-----------------------------|----------------------------|
| ■ Holed Juboi               | ■ Jamilah Binti Hassan     |
| ■ Tu Chu Lee                | ■ Elaine Remi Anak Douglas |
| ■ Zurien Amiera binti Irwan | ■ Cynthia Anak Seta        |
| ■ Fesmuela Anak Kagong      | ■ Holed Juboi              |
| ■ Chia Hwa Chuan            | ■ Tu Chu Lee               |

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### ● Patent & Peer Review Journal Contribution:

*Patent on "Method for Identification of Aglaian Stellatopilosa"*

- Dr Yeo Tiong Chia
- Belinda Ng Ling Nah
- Mariani Binti Omarzuki@Marzuki

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### ● Publication of "Photodynamic Activity of Plant Extracts from Sarawak" in Chemistry and Biodiversity 2013 Aug;10(8):1475-86

- Dr Yeo Tiong Chia
- Margarita Naming
- Michele Mejin
- Jong Wan Wui
- Diana Lim Siok Ley

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### ● Publication of "A Scented Trail: A Treat for the Senses in Sarawak" in Malaysian Naturalist Vol 67-1 September 2013

- Elaine Remi Anak Douglas

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### ● Publication of "Identification of Traditional Medicine Plant Extracts with Novel Anti-Influenza Activity" in PLoS ONE Journal – November 2013, Vol.8 Issue 1

- Dr Yeo Tiong Chia
- Tu Chu Lee
- Diana Lim Siok Ley

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### ● Certificate of Achievement for three consecutive years without sick leave at SBC: 2010 to 2012

- |                           |                               |
|---------------------------|-------------------------------|
| ■ Aloysius Sim Kwang Peng | ■ Margarita Maning            |
| ■ Bernard Anak Jerome     | ■ Pauline Nawang              |
| ■ Fesmuela Kagong         | ■ Romney Anak Dawur           |
| ■ Frankie Anak Kumbak     | ■ Rosy Anak Tian Lin          |
| ■ Gilbert Lau Sei Kung    | ■ Sabda Bin Safiee            |
| ■ Harny Anak Chapi        | ■ Sunarjo Bin Suip            |
| ■ Joeng Anak Melos        | ■ Sylvia Jenniffer Anak James |



● *Sijil Penghargaan Perkhidmatan Cemerlang Tahun 2012*

- |                                      |                               |
|--------------------------------------|-------------------------------|
| ■ Dr Yeo Tiong Chia                  | ■ Holed Anak Juboi            |
| ■ Anna Ng Mei Na                     | ■ Margarita Naming            |
| ■ Annie Anthoney Empira              | ■ Michele Mejin               |
| ■ Aziman Ahmad                       | ■ Noor Pahtiwati Binti Bohari |
| ■ Belinda Ng Ling Nah                | ■ Rigep Anak Anyain           |
| ■ Chew Leh King                      | ■ Rosy Anak Tian Lin          |
| ■ Elizabeth Alice Anak Gabriel Nasib | ■ Yeo Jiun Tzen               |
| ■ Gilbert Lau Sei Kung               |                               |

● *Anugerah Perkhidmatan Cemerlang Tahun 2012*

- Aloysius Sim Kwang Peng
- Bong Jat Chung
- Ellen Tan Chia Min
- Mounsey Muskie Anak Moding
- Ng Yik Han
- Norliah Binti Gani
- Reeve Mckay Anak John Jeffrey Sirabung



4 YBhg Datu Haji Sudarsono Osman receives a token of appreciation from Dr Rita Manurung

5 YBhg Datu Haji Sudarsono Osman, Dr Rita Manurung, Cikgu Mohamad Haji Arshad and Dr Yeo Tiong Chia having a photoshoot at the red carpet

## SBC's "Red Hot" Annual Dinner 2013



- 6 Invited guests, Mr Oswald Braken Tisen (SFC) and Mr Jiram Sidu taking part in the lucky draws
- 7 Prof Balbir Singh of UNIMAS picks out lucky numbers
- 8 SBC's own singing and dancing troupe
- 9 SBC's CEO Dr Rita Manurung and SFC CEO YBhg Datu Haji Ali Yusop present certificates to APC recipients
- 10 The crowning of the King and the Queen of SBC Red Hot Night by Dr Rita Manurung
- 11 Group photo session at the end of the event



## SBC Audit Committee



**YBhg Datu Laura Lee Ngien Hion – Chairman**  
*(w.e.f. 1 Jan 2013)*

*Deputy State Financial Secretary*



**Mr Peter Sawal – Member**

*Controller, Natural Resources & Environment Board (NREB)*



**Mr Lai Kui Fong – Member**

*Director of Agriculture*



**John Kennedy Janang – Member**

*Principal Assistant Secretary, State Financial Secretary*



**Christina Wong Hie Ping**

*Accountant, Sarawak Biodiversity Centre*

## SBC Establishment Committee

**YBhg Datu Haji Misnu Bin Haji Taha – Chairman**  
*(w.e.f. 1 Jan 2013)*

*Deputy State Secretary  
(Administrative, Security & Corporate Affairs)*



**YBhg Datu Haji Sudarsono Osman – Dep. Chairnan**

*Permanent Secretary, Ministry of Resource Planning  
and Environment*



**Mr Lai Kui Fong – Member**

*Director of Agriculture*



**Dr Razali bin Abon – Member (w.e.f. 01.08.2013)**

*Director Chief Minister's Department  
(Human Resource Management)*



**Dr Rita Manurung – Secretary**

*Chief Executive Officer, Sarawak Biodiversity Centre*





## *SBC Finance & Investment Committee*



**YBhg Dato Sri Ahmad Tarmizi Bin Haji Sulaiman – Chairman**

*State Financial Secretary*



**YBhg Datu Haji Sudarsono Osman – Member  
(w.e.f. 03.01.2012)**

*Permanent Secretary, Ministry of Planning and  
Resource Management*



**Mr Lai Kui Fong – Member**

*Director of Agriculture*



**YBhg Datu Haji Ali Bin Yusop – Member (w.e.f. 08.09.2012)**

*Director of Forests/Controller of Wildlife /  
Controller of National Parks and Nature Reserves*



**Dr Rita Manurung – Member**

*Chief Executive Officer, Sarawak Biodiversity Centre*

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FINANCIAL STATEMENTS  
FOR THE YEAR ENDED 2013



*Balance Sheet as at 31 December 2013*

	Note	2013 RM	2012 RM
<b>NON-CURRENT ASSETS</b>			
Property, plant & equipment	4	7,814,012	7,316,519
<b>CURRENT ASSETS</b>			
Cash and bank balances	5	2,619,496	678,250
Fixed Deposits	5	41,821,018	41,853,738
Other receivables	6	722,790	1,025,042
		<u>45,163,304</u>	<u>43,557,030</u>
<b>CURRENT LIABILITIES</b>			
Other payables and accruals	8	789,543	615,899
Provision for taxation	7	4,918	61,158
		<u>794,461</u>	<u>677,057</u>
<b>NET CURRENT ASSETS</b>		44,368,843	42,879,973
		<u><b>52,182,855</b></u>	<u><b>50,196,492</b></u>
<b>FINANCED BY:</b>			
General reserve	9	38,359,911	40,145,020
Development grants	10	8,441,727	4,510,348
		<u>46,801,638</u>	<u>44,655,368</u>
<b>NON-CURRENT LIABILITIES</b>			
Deferred income	11	5,381,217	5,541,124
		<u><b>52,182,855</b></u>	<u><b>50,196,492</b></u>

## *Income Statement*

### *For the year ended 31 December 2013*

	<b>Note</b>	<b>2013 RM</b>	<b>2012 RM</b>
Revenue	<b>12</b>	1,408,937	2,069,705
Government Grant	<b>13</b>	5,000,000	5,000,000
Transferred from Deferred Income	<b>11</b>	881,856	1,236,279
		<u>7,290,793</u>	<u>8,305,984</u>
Staff Cost	<b>14</b>	(5,577,711)	(4,513,112)
Depreciation of Property, Plant & Equipment	<b>4</b>	(1,111,159)	(1,498,975)
Other Operating Expenses	<b>15</b>	(2,091,183)	(1,551,211)
(Deficit)/Surplus before taxation		(1,489,260)	742,686
Taxation	<b>7</b>	(295,849)	(328,501)
Net (deficit)/surplus after taxation		<u>(1,785,109)</u>	<u>414,185</u>



## *Statement of Changes in Equity*

### *For the year ended 31 December 2013*

	<b>Development Grants RM</b>	<b>General Reserve RM</b>	<b>Total RM</b>
Balance as at 1 January 2012	2,707,364	39,730,835	42,438,199
Received during the year	3,935,421	-	3,935,421
Expended during the year	(2,132,437)	-	(2,132,437)
Surplus for the year	-	414,185	414,185
Balance as at 31 December 2012	<u><b>4,510,348</b></u>	<u><b>40,145,020</b></u>	<u><b>44,655,368</b></u>
Received during the year	6,063,184	-	6,063,184
Expended during the year	(2,131,805)	-	(2,131,805)
(Deficit) for the year	-	(1,785,109)	(1,785,109)
Balance as at 31 December 2013	<u><u><b>8,441,727</b></u></u>	<u><u><b>38,359,911</b></u></u>	<u><u><b>46,801,638</b></u></u>

## Cash Flow Statement

### For the year ended 31 December 2013

	Note	2013 RM	2012 RM
<b><u>CASH FLOW FROM OPERATING ACTIVITIES</u></b>			
(Deficit)/Surplus before tax		(1,489,260)	742,686
Adjustments for the items not involving the movements of cash and cash equivalents			
Depreciation of Property, Plant & Equipment	4	1,111,159	1,498,975
Interest income		(1,183,395)	(1,314,006)
Loss on disposal of Property, Plant & Equipment		-	1,385
Transfer from deferred income		(881,856)	(1,236,279)
Operating deficit before working capital changes		(2,443,352)	(307,239)
Decrease/(Increase) in other receivables		302,252	(390,504)
Increase in other payables		173,644	376,668
Cash used in operation		(1,967,456)	(321,075)
Income tax refunded		-	52,555
Income tax paid		(352,089)	(341,930)
<b>Net cash used in operating activities</b>		<b>(2,319,545)</b>	<b>(610,450)</b>
<b><u>CASH FLOW FROM INVESTING ACTIVITIES</u></b>			
Purchase of Property, Plant & Equipment		(886,703)	(43,790)
Development grant received		6,063,184	3,935,421
Development expenditure		(2,131,805)	(2,132,437)
Other income		1,183,395	1,314,006
<b>Net cash generated from investing activities</b>		<b>4,228,071</b>	<b>3,073,200</b>
<b>Net increase in cash and cash equivalents</b>		<b>1,908,526</b>	<b>2,462,750</b>
Cash and cash equivalents at beginning of the year		42,531,988	40,069,238
<b>Cash and cash equivalents at end of the year</b>	5	<b>44,440,514</b>	<b>42,531,988</b>

## Notes to the Financial Statements

### 1. Corporate Information And Principal Activities

The Sarawak Biodiversity Centre (SBC) is a Sarawak State Government – owned statutory body incorporated in 1997 and its vision is “to be the focal point and a resource centre for Sarawak Biodiversity inventory, monitoring, research, education, utilization, management and conservation”.

On 8 December 2003, the State Legislative Assembly passed the Sarawak Biodiversity Centre (Amendment) Ordinance 2003 which came into force on 1 April 2004. With the amendments, SBC is entrusted with the following statutory functions:

- **conduct Bioprospecting/R&D Programme** on the biodiversity of the State;
- **implement the Traditional Knowledge Documentation Programme** among the traditional communities in the State;
- **establish a database** on information related to the biological resources of the State; and
- **play a role in raising public awareness** on the potential usage and value of the State’s biodiversity.

The financial statements of the Centre were authorized for issue by the Council Members in accordance with a resolution of the Council Members on 15 April 2014.

### 2. Financial Risk Management Policies

The Centre’s financial risk management policy seeks to ensure that adequate financial resources are available for the development of the Centre’s activities whilst managing its risk.

The main risk arising from the Centre’s financial instruments are interest rate risk, credit risk, liquidity risk and foreign currency risk. The Centre’s reviews and agreed policies for managing each of these risks are summarized as below:

#### (a) Interest Rate Risk

The Centre has no borrowings. Surplus funds are placed with reputable banks.

#### (b) Credit Risk

Credit risk is managed through the application of credit approvals and monitoring procedures.

#### (c) Liquidity Risk

The Centre monitors and maintains a level of cash and cash equivalent deemed adequate by management to finance the Centre’s operations and mitigate the effects of fluctuations in cash flows.

The Centre relies heavily on Government Grant and as such liquidity and cash flow risk is very much dependent on availability of government assistance.

#### (d) Fair Value

Fair value is defined as the amount at which the financial instrument could be exchanged in a current transaction between knowledgeable willing parties in an arm’s length transaction, other than in forced or liquidation sale.

The fair values of the financial assets and liabilities approximate their carrying values.



## Notes to the Financial Statements

### 3. Significant Accounting Policies

#### (a) Basis of Accounting

The financial statements of SBC are prepared under the historical cost convention and in compliance with applicable Private Entities Reporting Standards issued or adopted by Malaysian Accounting Standards Board (MASB), Statutory Bodies (Financial and Accounting Procedure) Ordinance 1995 and Treasury Instruction.

#### (b) Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and impairment loss. Depreciation is computed monthly, principally by the straight-line method based on the estimated useful life of the related assets. The rates of depreciation are as follows: -

● Research lab building	5% p.a.
● Office equipment	15% p.a.
● Furniture and fittings	10% p.a.
● Computers and accessories	20% p.a.
● Office renovation	10% p.a.
● Temporary office	10% p.a.
● Specialised equipment (equipment)	15% p.a.
● Specialised equipment (computer)	20% p.a.
● Specialised equipment (software)	20% p.a.
● Lab equipment	15% p.a.
● Lab furniture & fittings	10% p.a.
● Motor vehicles	20% p.a.
● Nursery sheds	10% p.a.

#### (c) Operating Grant

Grant received from the State Government for the operation or maintenance of the Centre's activities and is credited to Income Statements.

#### (d) Development Grants

The Centre receives development grants from the State Government in order to finance activities and projects related to biodiversity research and development protection. This is in line with the functions and powers of the Centre, as provided by the Sarawak Biodiversity Centre Ordinance, 1997. The grants so received are credited to the Development Grants and offset against future costs when incurred.

#### (e) Impairment of Assets

Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. Whenever the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognized as income for items property, plant and equipment carried at cost. The recoverable amount is the higher of an asset's net selling price and value in use. The net selling price is the amount obtainable from the sale of an asset in an arm's length transaction.

## Notes to the Financial Statements

Value in use is the present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. Recoverable amounts are estimated for individual assets or, if it is not possible, for the cash-generating unit.

Reversal of an impairment loss recognized in prior years is recorded when there is an indication that the impairment loss recognized for an asset no longer exists or has decreased. The reversal is recorded in income or as a revaluation increase.

### 3. Significant Accounting Policies (cont'd)

#### (f) Deferred Income

Government grants in respect of the acquisition of property, plant and equipment are credited to the deferred income and released to the Income Statements on straight line basis over the expected useful lives of the assets.

#### (g) Employee Benefits

Government grants in respect of the acquisition of property, plant and equipment are credited to the deferred income and released to the Income Statements on straight line basis over the expected useful lives of the assets.

##### ■ Short-Term Benefits

Wages, salaries, bonuses and social security contributions are recognized as expenses in the year in which employees of the Centre render the associated services. Short-term accumulating compensated, such as paid annual leave are recognized when services rendered by employees that increases their entitlement to future compensated absences; and short-term non-accumulating compensated absences; such as sick leave are recognized when the absences occur.

##### ■ Defined Contribution Plan

As required by law, the Centre makes contributions to the Employee Provident Fund. Such contributions are recognized as an expense in the income statement as incurred.

#### (h) Financial Instrument

Financial instruments are recognized in the balance sheet when the Centre has become a party to the contractual provisions of the instrument. The particular recognition methods are dissolved below:-

##### ■ Other Receivable

Other receivables are carried at anticipated realizable value. Bad debts are written off when identified. An estimate is made for doubtful debts based on review of all outstanding accounts as at the balance sheet date.

##### ■ Other payables

Other payable are stated at cost, which is fair value of the consideration paid in the future for good and services received.

## *Notes to the Financial Statements*

### **(i) Revenue Recognition**

Revenue is recognized when it is probable that the economic benefits associated with transaction will flow to the Centre and the amount of the revenue can be measured reliably, the contractual provisions of the instrument. The particular recognition methods are dissolved below:-

- Interest income are recognized on a time proportion basis that reflects the effective yield on the asset.
- Other income are recognized at the point of receipt or sales by the Centre.



#### 4. Property, Plant and Equipment

[illegible]

## Notes to the Financial Statements

### 4. Property, Plant and Equipment

2012

	Buildings	Office Equipment	Office Fixtures & fittings	Furniture	Computers	Office Renovations	Motor Vehicle	Specialised Equipment	Temporary Office	Nursery Sheds	Lab Specialised Equipment	Lab Furniture & Fittings	Total
	RM	RM	RM	RM	RM	RM	RM	RM	RM	RM	RM	RM	RM
<b>Cost</b>													
Beginning of year	6,783,319	515,269	400,064		725,719	502,649	715,581	131,000	378,473	94,068	7,564,471	614,480	18,425,093
Additions	-	10,961	31,550		87,602						259,437	14,720	404,270
Disposals	-	(11,790)	-		(40,321)			(20,170)			(17,208)	(620)	(90,109)
End of Year	6,783,319	514,440	431,614		773,000	502,649	715,581	110,830	378,473	94,068	7,806,700	628,580	18,759,254

**Accumulated Depreciation**

Beginning of year	1,662,209	343,638	159,258		473,591	210,216	519,887	130,959	378,472	19,114	5,699,201	415,938	10,012,483
Additions	339,166	55,203	33,246		98,619	49,665	62,966			9,406	788,111	62,593	1,498,975
Disposals		(11,784)	-		(38,949)			(20,167)			(17,205)	(618)	(88,723)
End of Year	2,001,375	387,057	192,504		533,261	259,881	582,853	110,792	378,472	28,520	6,470,107	477,913	11,422,735
<b>Net Book Value at end of year</b>	<b>4,781,944</b>	<b>127,383</b>	<b>239,110</b>		<b>239,739</b>	<b>242,768</b>	<b>132,728</b>	<b>38</b>	<b>1</b>	<b>65,548</b>	<b>1,336,593</b>	<b>150,667</b>	<b>7,316,519</b>

## Notes to the Financial Statements

### 5. Cash and Cash Equivalents

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Cash and bank balances	2,619,496	678,250
Deposit with licensed banks	15,156,578	15,960,799
Deposit with licensed finance companies	26,664,440	25,892,939
	<u>44,440,514</u>	<u>42,531,988</u>

### 6. Other Receivables

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Other Receivables	13,860	370,827
Interest Receivables	708,930	654,215
	<u>722,790</u>	<u>1,025,042</u>

### 7. Tax Refundable/Provision for Taxation/Taxation

In exercising the powers under Section 127(3)(b) of Income Tax Act 1967, YB Menteri Kewangan Malaysia had made a new order: Income Tax (Exemption) (No.22) Order 2006 [P.U. (A) 207 @ 01 June 2006]. This order is applicable to Sarawak Biodiversity Centre where the Minister had exempted:

(a) any person from the payment of income tax in respect of income relating to the allocations given by the Federal or State Government in the form of grant or subsidy:

(b) a statutory body from the

payment of income tax in respect of income derived from

- the income received in respect of an amount chargeable and collectible from any person in accordance with the provisions of the Act regulating the statutory authority; or
- any donations or contribution received.

This Order shall have effect from the Year of Assessment 2006. Income Tax (Exemption) (No.17) Order 1995 [P.U. (A) 213/1995] and Income Tax (Exemption) (No.4) Order 2003 [P.U. (A) 33/2003] are revoked from the Year of Assessment 2006.

The provision for taxation is made based on the fixed deposit interest income only.



## Notes to the Financial Statements

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Balance at 1 January	61,158	74,587
Current Year Provision	295,849	328,501
Tax Paid	(352,089)	(341,930)
Balance at 31 December	<u>4,918</u>	<u>61,158</u>

### Taxation

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Current year tax expense	295,849	328,501
Under provision in respect of prior year	-	-
	<u>295,849</u>	<u>328,501</u>

### 8. Other Payables and Accruals

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Other Payables	134,584	19,970
Accruals	654,959	595,929
	<u>789,543</u>	<u>615,899</u>

### 9. General Reserve

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Balance as at 1 January	40,145,020	39,730,835
Net Surplus for the year	(1,785,109)	414,185
Balance as at 31 December	<u>38,359,911</u>	<u>40,145,020</u>

### 10. Development Grant

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Balance as at 1 January	4,510,348	2,707,364
Received during the year	6,063,184	3,935,421
Expended during the year	(2,131,805)	(2,132,437)
Balance as at 31 December	<u>8,441,727</u>	<u>4,510,348</u>

## Notes to the Financial Statements

### 11. Deferred Income

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Balance as at 1 January	5,541,124	6,416,924
Received during the year	721,949	360,479
Released to Income Statement	(881,856)	(1,236,279)
Balance as at 31 December	<u>5,381,217</u>	<u>5,541,124</u>

### 12. Revenue

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Fixed Deposit Interest Income	1,183,395	1,314,006
Tender Document Fees	11,000	18,161
Other Income	214,542	737,538
	<u>1,408,937</u>	<u>2,069,705</u>

### 13. Government Grant

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Operating Grant	<u>5,000,000</u>	<u>5,000,000</u>

### 14. Staff Cost

	<b>2013</b>	<b>2012</b>
	<b>RM</b>	<b>RM</b>
Personnel Emolument	4,629,666	3,601,279
Staff incentives (e.g. excellence award)	52,699	71,864
EPF	560,359	446,035
SOCSSO	52,550	43,402
Overtime	44,412	37,465
Transport and Travelling	142,456	231,628
Medical expenses	79,122	69,407
Staff Uniform	16,447	12,032
	<u>5,577,711</u>	<u>4,513,112</u>
Number of staff	101	99

## Notes to the Financial Statements

### 15. Other Operating Expenses

	2013 RM	2012 RM
Advertisement	4,366	3,807
Audit Fees	6,870	5,807
Bank charges	3	220
Computer & Accessories	67,074	52,995
Consultancy fees	129,643	84,284
Conference and Seminar Fees	19,774	5,427
Council Members' Allowance & Sitting Fees	32,200	31,160
Electricity charges	250,236	260,705
Entertainment	40,355	31,614
Fuel and Lubricant	20,483	26,791
Human Resource Development Expenses	132,562	46,529
Lab Consumables	503,903	215,228
Lab Maintenance	108,944	31,114
Loss on disposal of Property, Plant & Equipmer	-	1,385
Insurance	35,690	36,670
Market testing & research	278,475	211,100
Motor Vehicles Road Tax	1,602	2,811
Newspapers	14,139	13,219
Office Expenses (other office supplies)	100,994	101,258
Office Maintenance	204,349	255,750
Postage and courier	14,063	24,506
Printing and Stationery	27,757	20,655
Public Communication Services	-	-
Repairs and maintenance - motor vehicles	27,910	22,265
Telephone/fax/internet charges	59,837	49,189
Water charges	9,954	16,722
	<u>2,091,183</u>	<u>1,551,211</u>

### 16. Capital Commitment

Approved capital expenditure and contracted for in the financial statement as at 31 December 2013 is RM6,380,000. (Year 2012: RM1,129,555).

### 17. Currency

All amounts are stated in Ringgit Malaysia (RM).

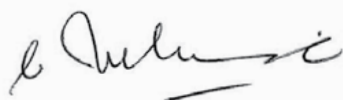


**SARAWAK BIODIVERSITY CENTRE**  
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997)

**PENYATA Pengerusi dan Timbalan Pengerusi**

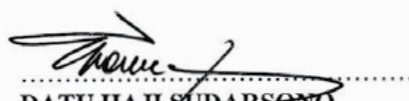
Kami, **TAN SRI DATUK AMAR HAJI MOHAMAD MORSHIDI BIN ABDUL GHANI** dan **DATU HAJI SUDARSONO BIN OSMAN** yang merupakan Pengerusi dan Timbalan Pengerusi **MAJLIS KEPELBAGAIAN BIOLOGI SARAWAK** dengan ini menyatakan bahawa, pada pendapat Ahli - Ahli Majlis, Penyata Kewangan yang mengandungi Lembaran Imbangan, Penyata Pendapatan, Penyata Perubahan Ekuiti dan Penyata Aliran Tunai yang berikut ini berserta dengan nota-nota kepada Penyata Kewangan di dalamnya, adalah disediakan untuk menunjukkan pandangan yang benar dan saksama berkenaan kedudukan **PUSAT KEPELBAGAIAN BIOLOGI SARAWAK** pada **31 DISEMBER 2013** dan hasil kendaliannya serta perubahan kedudukan kewangannya bagi tahun yang berakhir pada tarikh tersebut.

Bagi pihak Majlis,



.....  
**TAN SRI DATUK AMAR HAJI MOHAMAD  
MORSHIDI BIN ABDUL GHANI**

Bagi pihak Majlis,



.....  
**DATU HAJI SUDARSONO  
BIN OSMAN**

Tarikh:  
Kuching

**23 APR 2014**

Tarikh:  
Kuching

**24/4/2014**

**SARAWAK BIODIVERSITY CENTRE**  
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997)

**PENGAKUAN OLEH PEGAWAI UTAMA YANG BERTANGGUNGJAWAB  
KE ATAS PENGURUSAN KEWANGAN  
PUSAT KEPELBAGAIAN BIOLOGI SARAWAK**

Saya, **DR YEO TIONG CHIA**, pegawai utama yang bertanggungjawab ke atas pengurusan kewangan dan rekod-rekod perakaunan **PUSAT KEPELBAGAIAN BIOLOGI SARAWAK**, dengan ikhlasnya mengakui bahawa Lembaran Imbangan, Penyata Pendapatan, Penyata Perubahan Ekuiti dan Penyata Aliran Tunai dalam kedudukan kewangan yang berikut ini berserta dengan nota-nota kepada Penyata Kewangan di dalamnya, mengikut sebaik-baik pengetahuan dan kepercayaan saya, adalah betul dan saya membuat ikrar ini dengan sebenarnya mempercayai bahawa ianya adalah benar dan atas kehendak-kehendak Akta Akuan Berkanun, 1960.

Sebenar dan sesungguhnya )  
diakui oleh penama di atas )  
di KUCHING, SARAWAK )  
pada 22 haribulan 4-2014..... )

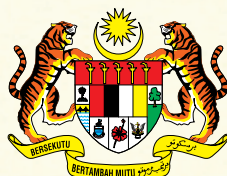
Di hadapan saya



**BAIJURY DZULHIZAM BIN SPAWI**  
.....2nd Class Magistrate.....  
Kuching District Office

**PESURUHJAYA SUMPAH**

## *Sijil Ketua Audit Negara*



### **LAPORAN KETUA AUDIT NEGARA MENGENAI PENYATA KEWANGAN PUSAT KEPELBAGAIAN BIOLOGI SARAWAK BAGI TAHUN BERAKHIR 31 DISEMBER 2013**

#### **Laporan Mengenai Penyata Kewangan**

Penyata Kewangan Pusat Kepekabagaian Biologi Sarawak bagi tahun berakhir 31 Disember 2013 telah diaudit oleh wakil saya yang merangkumi Lembaran Imbangan Pada 31 Disember 2013 dan Penyata Pendapatan, Penyata Perubahan Dalam Ekuiti serta Penyata Aliran Tunai bagi tahun berakhir pada tarikh tersebut, ringkasan polisi perakaunan yang signifikan dan nota penjelasan lain.

#### *Tanggungjawab Ahli Majlis Terhadap Penyata Kewangan*

Ahli Majlis bertanggungjawab terhadap penyediaan dan persembahan penyata kewangan tersebut yang saksama selaras dengan piawaian pelaporan kewangan yang diluluskan di Malaysia dan Ordinan Badan Berkanun (Prosedur Kewangan Dan Perakaunan), 1995 (Pindaan 2004). Ahli Majlis juga bertanggungjawab terhadap kawalan dalaman yang ditetapkan perlu oleh pengurusan bagi membolehkan penyediaan penyata kewangan yang bebas daripada salah nyata yang ketara sama ada disebabkan oleh fraud atau kesilapan.

#### *Tanggungjawab Juruaudit*

Tanggungjawab saya adalah memberi pendapat terhadap penyata kewangan tersebut berdasarkan pengauditan yang dijalankan. Pengauditan telah dilaksanakan mengikut Akta Audit 1957 dan piawaian pengauditan yang diluluskan di Malaysia. Piawaian tersebut menghendaki saya mematuhi keperluan etika serta merancang dan melaksanakan pengauditan untuk memperoleh jaminan yang munasabah sama ada penyata kewangan tersebut bebas daripada salah nyata yang ketara.

Pengauditan meliputi pelaksanaan prosedur untuk memperoleh bukti audit mengenai amaun dan pendedahan dalam penyata kewangan. Prosedur yang dipilih bergantung kepada pertimbangan juruaudit, termasuk penilaian risiko salah nyata yang ketara pada penyata kewangan sama ada disebabkan oleh fraud atau kesilapan. Dalam membuat penilaian risiko tersebut, juruaudit mempertimbangkan kawalan dalaman yang bersesuaian dengan entiti dalam penyediaan dan persembahan penyata kewangan yang memberi gambaran yang



## Sijil Ketua Audit Negara

benar dan saksama bagi tujuan merangka prosedur pengauditan yang bersesuaian tetapi bukan untuk menyatakan pendapat mengenai keberkesanan kawalan dalaman entiti tersebut. Pengauditan juga termasuk menilai kesesuaian polisi perakaunan yang diguna pakai dan kemunasabahan anggaran perakaunan yang dibuat oleh pengurusan serta persembahan penyata kewangan secara menyeluruh.

Saya percaya bahawa bukti audit yang saya peroleh adalah mencukupi dan bersesuaian untuk dijadikan asas bagi pendapat audit saya.

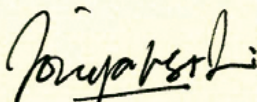
### *Pendapat*

Pada pendapat saya, penyata kewangan ini memberikan gambaran yang benar dan saksama mengenai kedudukan kewangan Pusat Kepelbagaian Biologi Sarawak pada 31 Disember 2013 dan prestasi kewangan serta aliran tunai bagi tahun berakhir pada tarikh tersebut selaras dengan piawaian pelaporan kewangan yang diluluskan di Malaysia.

### **Laporan Mengenai Keperluan Perundangan Dan Peraturan Lain**

Selaras dengan keperluan Ordinan Badan Berkanun (Prosedur Kewangan Dan Perakaunan), 1995 (Pindaan 2004) dan Ordinan Pusat Kepelbagaian Biologi Sarawak, 1997 (Pindaan 2003) di Malaysia, saya turut melaporkan bahawa pada pendapat saya:

- i. Rekod perakaunan dan rekod lain telah diselenggara dengan teratur selaras dengan Seksyen 4, Ordinan Badan Berkanun (Prosedur Kewangan Dan Perakaunan), 1995 (Pindaan 2004) dan Seksyen 19, Ordinan Pusat Kepelbagaian Biologi Sarawak, 1997 (Pindaan 2003) tersebut;
- ii. Penerimaan, perbelanjaan, pelaburan wang dan perolehan serta pelupusan aset oleh Pusat Kepelbagaian Biologi Sarawak bagi tahun berakhir 31 Disember 2013 adalah selaras dengan peruntukan Ordinan tersebut; dan
- iii. Aset dan liabiliti telah dinyatakan dengan saksama selaras dengan polisi perakaunan.

  
(TOIEYAH BINTI HAJI TIOH)  
b.p. KETUA AUDIT NEGARA  
MALAYSIA

KUCHING  
TARIKH: 13 JUN 2014



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## Appendices

*Biodiversity-Biotechnology Appreciation &  
Awareness Programme 2013*



*R&D Publication 2013*



## Awareness &amp; Appreciation Visits 2013

School / Organisation		Date	No of Participants
Masterskill Global College, Kuching	1	26 Feb	40 pax
Persatuan Sains Frontier (SFROST), Program Diploma Sains UiTM Sarawak	2	8 Mar	31 pax
SMK Tarat	3	3 May	40 pax
UPM Bintulu	4	22 May	28 pax
St Anthony Canossian Primary School, Singapore	5	31 May	65 pax
CMS Clinker (5S Visit)	6	25 June	20 pax
NREB (5S Visit)	7	25 June	17 pax
UNIMAS (5S Visit)	8	5 July	30 pax
Tadika Methodist Bt. 10	9	18 July	60 pax
Tadika Methodist Bt. 10	10	25 July	84 pax
Pasir Ris Primary School, Singapore	11	9 Sept	36 pax
SEGI College, Kuching	12	17 Sept	35 pax
SMK Tabuan Jaya (Sekolah Sukan Negeri Sarawak)	13	22 Oct	45 pax
SEGI College, Kuching	14	11 Nov	25 pax

## Visits to Schools (Biodiversity Talks)

School / Organisation		Date	No of Participants
SMK Wira Penrissen	1	2 Aug	180 pax
SMK Tarat	2	19 Aug	250 pax
SMK Padawan	3	20 Aug	100 pax
SMK Sg Tapang	4	29 Aug	120 pax
SMK Paku	5	17 Oct	250 pax
SMK Tun Abdul Razak	6	16 Oct	150 pax
SMK Tae	7	24 Oct	50 pax
UiTM Kota Samarahan	8	23 Oct	80 pax



## Public Awareness Workshops &amp; Public Lectures 2013

Event	Venue	Date	No of Participants	Target Participants
HIV Prevention, Treatment and Eradication Using Animal Models by Dr. Zandrea Ambrose, University of Pittsburg	Lecture Theatre, SBC	31 Jan	87 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public
The M&Ms: Malaria, Man, Monkey & Mosquitoes by Prof. Balbir Singh, Malaria Research Centre, UNIMAS	Lecture Theatre, SBC	26 Apr	85 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public
Just How Many Flowering Plant Species Grow in Sarawak by Peter Boyce	Lecture Theatre, SBC	18 May	35 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public
Diversity of Macro Fungi in Sarawak by Prof Dr Sepiah binti Muid, Faculty of Resource Science and Technology, UNIMAS	Lecture Theatre, SBC	18 May	35 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public
Orchids for Every One by Prof Maziah Mahmood, Faculty of Biotechnology and Biomolecular Science, University Putra Malaysia, Serdang	Lecture Theatre, SBC	18 May	35 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public
Stories from the Forests: Wild Life Conservation in Sarawak by Oswald Braken Tisen, Sarawak Forestry Corporation	Lecture Theatre, SBC	19 May	40 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public

## Public Awareness Workshops &amp; Public Lectures 2013

Event	Venue	Date	No of Participants	Target Participants
Our Rivers and Biodiversity by Hj Saimi bin Sarkawi, Sarawak Rivers Board	Lecture Theatre, SBC	19 May	40 pax	SBC Staff, Research Officers & Lecturers from relevant agencies and Universities, Hospitals & Health Dept., & General Public
7				
Developing Sustainable Indigenous Communities: Indigenous America to Indigenous Borneo by Dr Michael Ceballos	Lecture Theatre, SBC	14 June	48 pax	
8				
Palaeozoological Perspectives on Biological Conservation in Niah National Park: Evidence from the Great Cave by Christopher Stimpson	Lecture Theatre, SBC	5 July	39 pax	
9				
Flora of Paya Maga, Lawas, Borneo by Ling Chea Yiing	Lecture Theatre, SBC	6 Sept	60 pax	
10				
Plasmodium vivax Malaria: the Patient Approach by Dr Laurent Renia	Lecture Theatre, SBC	27 Sept	80 pax	
11				

## Participation at Exhibitions 2013

Event	Date
Ekspo Pameran Bagi Majlis Agenda Dewan Bandaraya Kuching Utara (DBKU) 2013 anjuran DBKU di perkarangan DUN Lama, Kuching	1 11-13 Jan
Pameran sempena Bengkel Interaktif Herba 2013 anjuran FRIM dengan kerjasama YB Hjh Nancy Hj Shukri selaku Pengerusi MFRDB di Simunjan	2 2-3 Feb
Pameran dan Persidangan Bio-Borneo 2013 anjuran Bahagian Bioteknologi Kebangsaan (BIOTEK), Kementerian Sains, Teknologi dan Inovasi (MOSTI) dengan kerjasama Pihak Berkuasa Pembangunan Ekonomi dan Pelaburan Sabah (SEDIA) dan Malaysian Biotechnology Corporation (BiotechCorp) di Kota Kinabalu, Sabah	3 19-20 Feb
Pameran sempena MyGreen Kuching Carnival di Perkarangan Taman Pertemuan (Le'Park) Kuching	4 9 March
Pameran sempena Majlis Pelancaran Kolej Dalam Taman Peringkat Institusi Latihan Kementerian Kesihatan Malaysia 2013 di Kolej Kesihatan Awam Kuching	5 22-23 March
Pameran Bengkel Pendidikan dan Kesedaran Alam Sekitar sempena Hari Alam Sekitar Sedunia 2013 di Muzium Tun Abdul Razak, Kuching anjuran NREB (display brochures only – SBC & TK Brochure)	6 5-7 June
Sarawak Grand Timber Expo & Conference 2013 & Small & Medium Enterprises (SMEs) Expo 2013 (displays at MRPE booth)	7 7-10 June
Pameran sempena Hari Harta Intelek Negara 2013 di MITC, Melaka	8 13-15 June
Pameran Produk Berasaskan Herba sempena Mesyuarat Ahli Lembaga Pengarah MPC di MPC Kuching	9 28 June
Pameran sempena Majlis Perasmian Sambutan Perayaan Sarawak Merdeka Dalam Malaysia di Sarawak Tourism Centre (collective poster for MRPE by Faradale Media)	10 22 July
Pameran Sempena Karnival Kimia Malaysia Zon Sarawak di Kolej Datuk Patinggi Abang Haji Abdillah, Kuching	11 4 Sept
Pameran dan Majlis Sambutan Minggu Integriti Dan Inovasi Pustaka Negeri Sarawak, 2013	12 11-15 Nov



## VIP &amp; Corporate Visits 2013

Event	Date
Chinese Academy of Forestry/ JY Securities, China	1 16 Jan
Universiti Teknologi Petronas (CBBR Research & Algae Project at UTP), Perak	2 21 Jan
UTHM, Johor/ UMS Sabah	3 22 Jan
Faculty of Engineering, UNIMAS	4 23 Jan
NRE, Legal Unit	5 25 Jan
Jessica Radzio, CDC Atlanta	6 31 Jan
Agensi Inovasi Malaysia & Brain Research Institute, Monash University	7 11 Mar
Tomato Fujita & Group (Mitsubishi Corp.)	8 14 Mar
MGRC Berhad, K.L.	9 15 Mar
Hawa Jaafar, APEEC/UCTC, UPM	10 18 Mar
Borneo Natural Coconut Oil SB	11 5 Apr
BAI Sdn Bhd/Swinburne	12 9 Apr
Faculty of Medicine and Health Sciences, UNIMAS	13 10 Apr
Berhaman Ahmad, UMS	14 10 Apr
Hjh Sutin Sahmat/ Dr Rabyah Mohd Mansor, MMKN, Wisma Bapa Malaysia	15 25 Apr
Institute of Landscape Architects Malaysia (ILAM)	16 9 May
Zaharah Malim (Zahara & Associates)	17 18 May
Dr. Mohd Firdaus Abdul Wahab, Faculty of Bioscience & Medical Engineering, UTM Skudai	18 10 Jun
Prof Tohru Nakashizuka, Grad. School of Life Sciences, Tohoku University	19 17 Jun
Prof Takao Itioka, Grad. School of Human & Environ. Kyoto University	20 17 Jun

## VIP &amp; Corporate Visits 2013

Event	Date
Dr. Tomoaki Ichie, Faculty of Agriculture, Kochi University	21 17 Jun
University College Technology Sarawak (UCTS) Sibu	22 19 Jun
Vikineswary S, University Malaya	23 20 Jun
Mohamad Hasnul Bolhassan, FRST, UNIMAS	24 20 Jun
Ali Kasa, Egnatia Group	25 25 Jun
Miko Arita & Shinobu Takahashi, Tokyo	26 8 July
Prof. Dr Razali Bolhi, Agrotech Academy Sdn Bhd	27 5 Aug
Dr. Amandeep Sidhu, Curtin University Sarawak	28 22 Aug
Furley Bioextracts Sdn Bhd	29 27 Aug
Datu Chiati Bolhassan, Ministry of Rural Development	30 9 Sept
Laurent Renia & Leong Chung Yan, A*STAR	31 26 Sept
STEMfest Conference delegates (38 pax)	32 2 Oct
Konsortium Malaysia (Mukah Science Park)	33 7 Oct

## Publications

Event	Published
Sarawak Biodiversity Centre to host talk on malaria April 26	1 The Borneo Post, 4 April
Sarawak Biodiversity Centre's Biodiversity Day 2013, 18 & 19 May 2013	2 Sarawaknet, 10 Apr
Fun Biodiversity Day for all on May 18-19	3 The Star, Sarawak, 13 Apr
Fun-filled activities for all at SBC's Biodiversity Day	4 New Sarawak Tribune, 13 Apr
Centre to hold Biodiversity Day on May 18, 19	5 The Borneo Post, 19 Apr
SBC holds talk on Malaria	6 New Sarawak Tribune, 27 Apr
An Invitation for Friends of Biodiversity (on Biodiversity Day on 18 and 19 May)	7 Sarawaknet, 3 May
SBC Biodiversity Day coming soon	8 The Sunday Post, 5 May
SBC Biodiversity Day on 18, 19 May	9 The Sunday Post, 5 May
Upcoming Biodiversity Day Talks at SBC on 18 and 19 May	10 Sarawaknet, 7 May
Biodiversity Day talks at SBC on 18 and 19 May	11 New Sarawak Tribune, 8 May
Awareness talks mark Biodiversity Day in Sarawak	12 The Borneo Post, 9 May
Challenge not in treating monkey malaria but detecting it	13 The Star, Sarawak, 9 May
International Day for Biological Diversity to be a fun-filled day	14 The Borneo Post, 15 May
Call to involve children in preservation, conservation of biodiversity	15 New Sunday Tribune, 19 May
Melanau art of palm leaf folding	16 The Star, Sarawak, 27 May
Talk on developing sustainable indigenous communities on June 14	17 Sunday Star, Sarawak, 2 June
Tastes of the Bario Highlands – Apart from its famous rice, the community also produces natural spring salt and cane sugar	18 Sunday Star, Sarawak, 2 June



## Publications

Event	Published
Talk on developing sustainable indigenous communities next week	19 Sunday Star, Sarawak, 10 June
More than just a machete – Traditional parang of Sarawak continues its essential role in today's modern world	20 Sunday Star, 10 June
SBC to hold talk on indigenous communities June 14	21 The Borneo Post, 11 June
Talk on developing sustainable indigenous communities at SBC	22 The Sunday Post, 16 June
Techniques involved in making blowpipes have not changed for generations	23 Metro Central, 21 June (e-paper)
Avian zooarchaeology at the Great Cave of Niah, Sarawak	24 Sarawaknet, 21 June
Talk on Niah Caves at SBC on 5 July	25 New Sarawak Tribune, 22 June
SBC to hold talk on Niah fossils	26 The Borneo Post, 22 June
Key hunting weapon for Penans <i>** Remarks: no articles on both appear in Star 21 through 23 June 2013</i>	27 The Star Metro South & East, 22 June (e-paper)
Biodiversity Public Awareness Talk on Archeological Evidence of Animals in the Niah Caves	28 Sarawaknet, 24 June
Talk on fossils in Niah Caves	29 New Sarawak Tribune, 29 June
Talk on Niah Caves fossil animals next Friday	30 The Borneo Post, 29 June
50,000-year-old cave dwelling birds still exist	31 The Borneo Post, 6 July
Researcher presents talk on bat and swiftlet bones in Niah	32 New Sunday Tribune, 7 July
The jungle is a pharmacy (article by Sidi Munan – Uncle D column) on TK workshop, 20-21 Nov 2013	33 The Sunday Post, 3 Nov 2013

## Other Activities

Event	Date
Larian MAKSAS, Jabatan Pelajaran Sarawak	1 16 Feb
Arbor Day	2 3 Mar
Futsal Women Tournament	3 27 Apr
SBC Biodiversity Open Day 2013	4 16-18 May
Padawan Raft Safari 2013	5 7 July
Intergrity Talk cum Majlis Berbuka Puasa	6 19 July
MAKSAS Malaysia Run	7 7 Sept
SBC Team Building & Health & Fitness Camp	8 10-12 Oct
SBC Motivational Day cum Dinner 2013	9 Oct 2013
5S Visit to CMS Clinker	10 31 Oct

## R &amp; D Publication 2013

Title	Author	Date Submitted	Remarks	Journal/Name/ BookName/ Newspaper/ Newsletter
Photodynamic Activity of Plant Extracts from Sarawak, Borneo	JONG WAN WUI	12 Aug 2013	Author #2 : Pei Jean Tan, Author #3: Fadzly Adzhar Kamarulzaman, Author #6: Ida Ang, Author #9 : Anthony Siong Hock Ho, Author #10 : Soo Hwang Teo, Author #11 : Hong Boon Lee. Authors from CARIF and Taylors University	Chemistry & Biodiversity Vol.10 (2013), p1475-1486
1 Making Scents of Biodiversity, A perfumed garden in Paya Mage, Sarawak	ELAINE REMI	13 Sept 2013	Article	Malaysian Naturalist, Volume 67-1,p26-29, September 2013
2 Identification of traditional medicinal plant extracts with novel anti-influenza activity	DIANA LIM SIOK LEY	22 Oct 2013	Author #1 : Dhivya Rajasekaran1 ; Author #2 : Enzo A. Palombo; Author#6 : Francois Malherbe; Author#7 :Lara Grollo; from Swinburne University of Technology, Australia	PLOS ONE, November 2013, Volume 8, Issue 11
3				



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