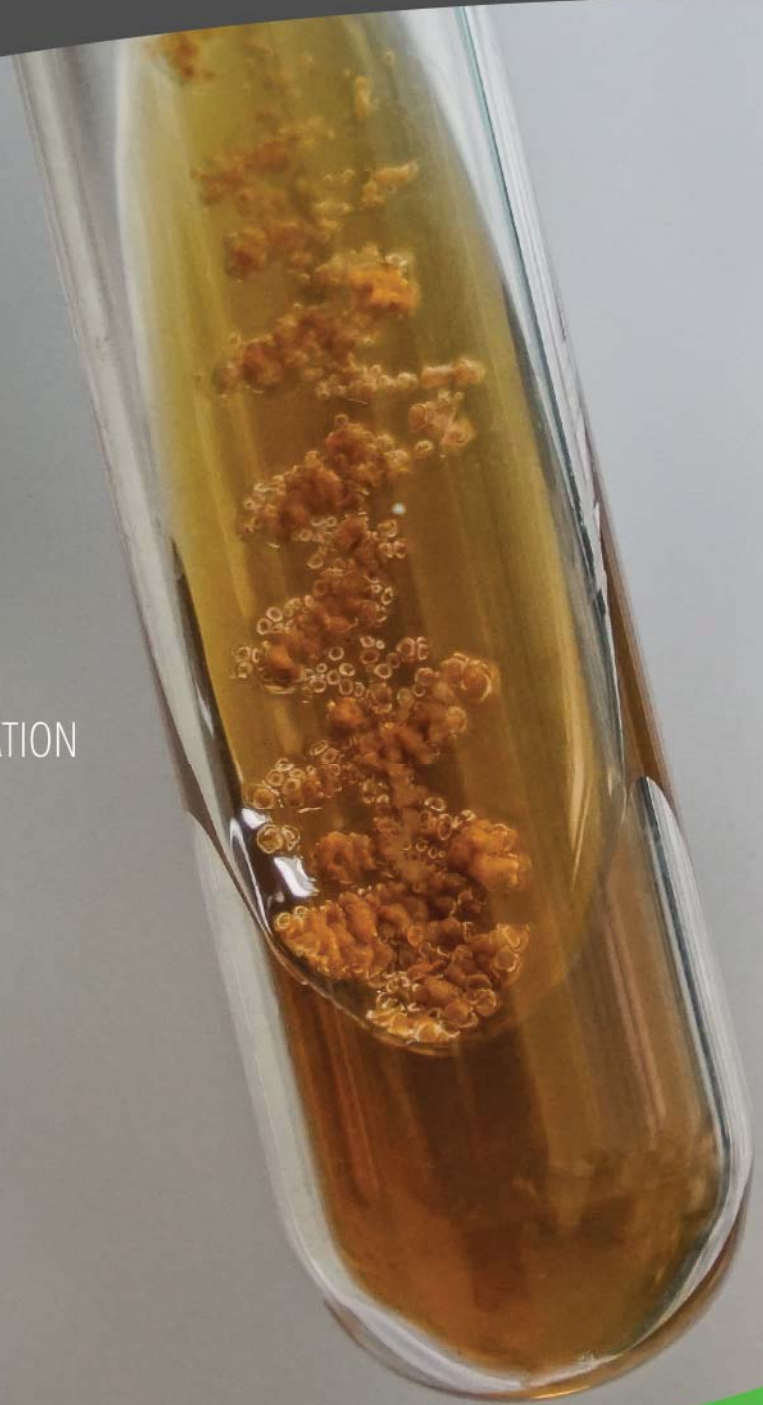


SARAWAK BIODIVERSITY CENTRE

ANNUAL REPORT

TRADITIONAL KNOWLEDGE DOCUMENTATION
ACCESS AND BENEFIT SHARING
BIODIVERSITY GARDEN
R&D BIODISCOVERY
AWARENESS & APPRECIATION



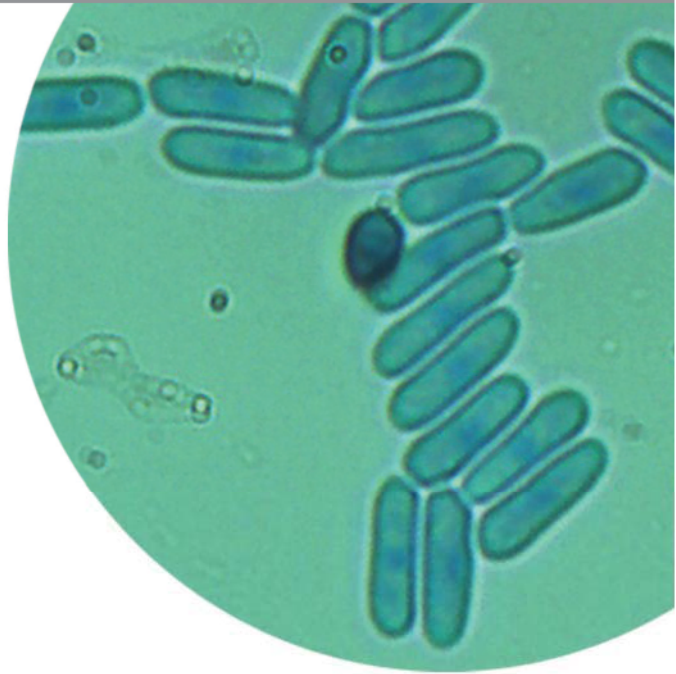
Sarawak
Biodiversity Centre

2017

Cover Photo : Actinobacteria strain AC07874 isolated from a mixed dipterocarp forest ecosystem during a Heart of Borneo (HoB) scientific expedition to Ulu Mentawai, Limbang in 2012. It belongs to the *Streptomyces* genera, a group of actinobacteria well-known as prolific natural products producer.

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Vision

Enriching Lives with
Breakthrough Innovations in
Biodiversity

Mission

To Decode Biodiversity for the
Benefit of Mankind

Tagline

Biodiversity for a Better Tomorrow



Foreword from the Chairman of the Sarawak Biodiversity Council 2017



In its 20th year, the Sarawak Biodiversity Centre (SBC) has recorded another year of impressive achievements in its research activities. In 2017, the Centre successfully collaborated in its first corporate partnership with the French-based International Pullman Hotel brand for its LitSara® project, and also moved into Phase III of its research collaboration with Mitsubishi Corporation.

In addition, the Centre has continuously established collaborations with other bio-based organisations and companies to maximise its effort to add value to the biodiversity of Sarawak, and remains steadfastly dedicated to its mission of enhancing the excellence of research and development.

Notably, SBC has continued to engage with its well-recognized and globally innovative process of including Traditional Knowledge Communities in its work through the implementation of Access and Benefit Sharing (ABS) procedures. The core goal motivating these efforts is the aim of sharing the benefits arising from the utilisation of biological resources in a fair and equitable manner.

Remarkable research work done by SBC from 2010 until now has generated a patent - Method for Identification of *Aglaia stellatopilosa* (Patent Number WO2012030206A1); two trademarks (LitSara® registered under Class 3, 5, 16 and 21 and Adenosara®, registered under Class 3, 5, 16 and 35); and two geographical indications - Sarawak Litsea (GI2011-00001), registered under Class 3 and Sarawak Adenosma (GI2015-00018), registered under Class 3). Moving forward, SBC is poised to advance from these valuable experiences and success to accelerate its commercialisation of our continual stream of novel research findings.

On behalf of the Sarawak Biodiversity Council, I would like to congratulate SBC's team for its continuous commitment towards research for a better tomorrow. I am also looking forward to more exciting events and higher levels of achievement for the coming year and beyond.

A handwritten signature in black ink, appearing to read 'A. Morshidi', written in a cursive style.

Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani
Chairman, Sarawak Biodiversity Council

Sarawak Biodiversity Council



YB Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani
State Secretary of Sarawak
Chairman, Sarawak Biodiversity Council



YBhg Datu Haji Sudarsono Osman (until 15 March 2017)
Permanent Secretary, Ministry of Resource Planning & Environment
Deputy Chairman, Sarawak Biodiversity Council



Dr Haji Wan Lizozman bin Wan Omar (w.e.f. 15 March 2017)
Permanent Secretary, Ministry of Urban Development and Natural Resources (MUDeNR)
Deputy Chairman, Sarawak Biodiversity Council



Dr Yeo Tiong Chia
Chief Executive Officer, Sarawak Biodiversity Centre
Secretary, Sarawak Biodiversity Council



YA Datuk Talat Mahmood bin Abdul Rashid (w.e.f. 3 January 2017)
State Attorney General
Council Member, Sarawak Biodiversity Council



YBhg Dato Sri Ahmad Tarmizi bin Haji Sulaiman
State Financial Secretary
Council Member, Sarawak Biodiversity Council



YBhg Datu Haji Ismawi bin Haji Ismuni
Deputy State Secretary (Socio-Economic Transformation)
Council Member, Sarawak Biodiversity Council



Tuan Haji Sapuan Ahmad
Director of Forests/Controller of Wildlife
Council Member, Sarawak Biodiversity Council

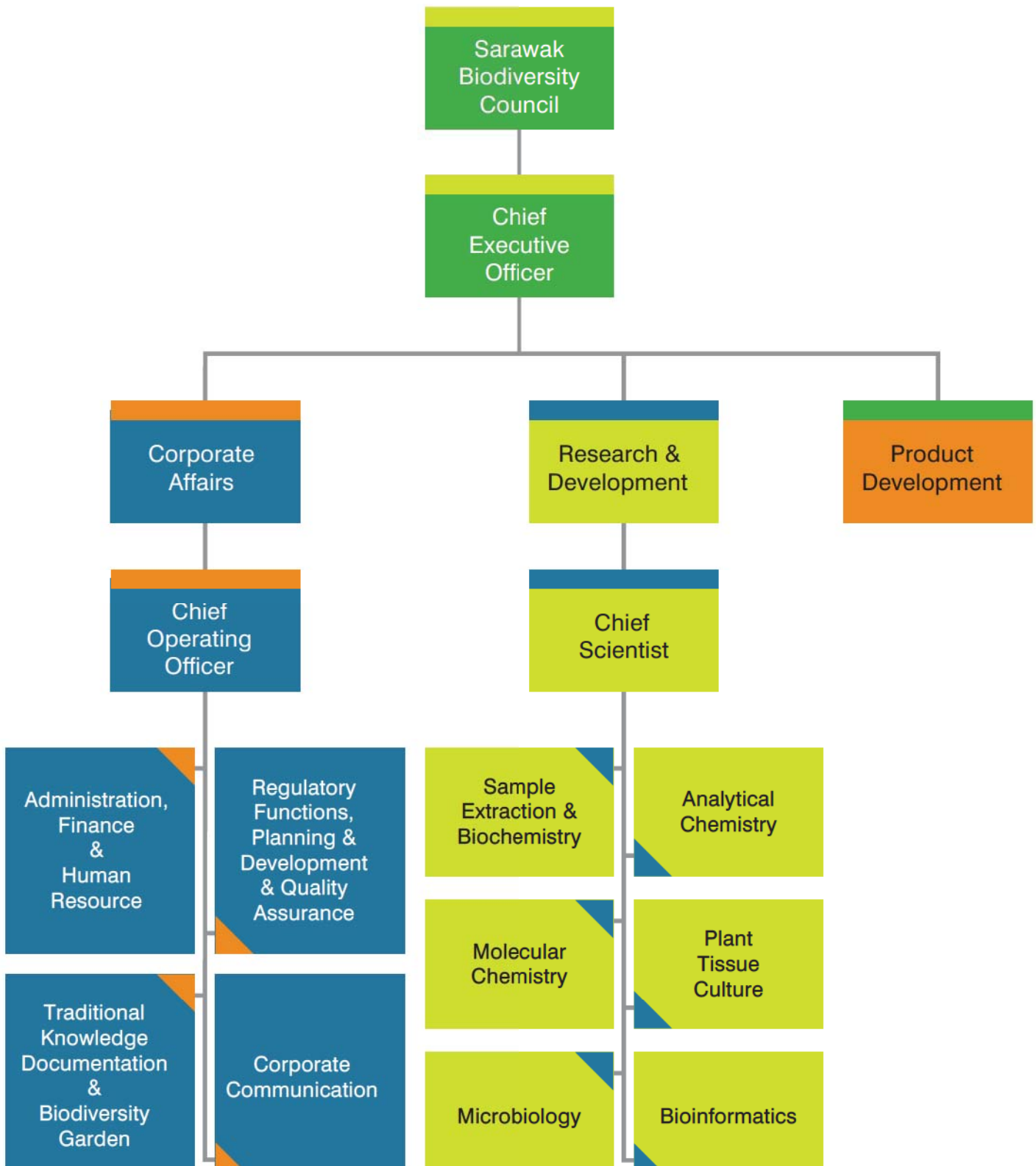


Mr Peter Sawal
Controller, Natural Resources & Environment Board (NREB)
Council Member, Sarawak Biodiversity Council



YBhg Datu Lai Kui Fong
Director of Agriculture
Council Member, Sarawak Biodiversity Council

Organisation Structure





R&D Biodiscovery Programme

The R&D Biodiscovery Programme focuses on pilot scale activities for biological resources and chemicals that show high potential for development and commercialization in aquaculture, agriculture, nutraceuticals, cosmeceuticals, as well as pharmaceutical applications.

Thanks to the support of the new Integrated Biodiversity Research Building (IBRB), a more rapid process of chemical and bioactive compound profiling and production of tissue culture in bulk is now possible.

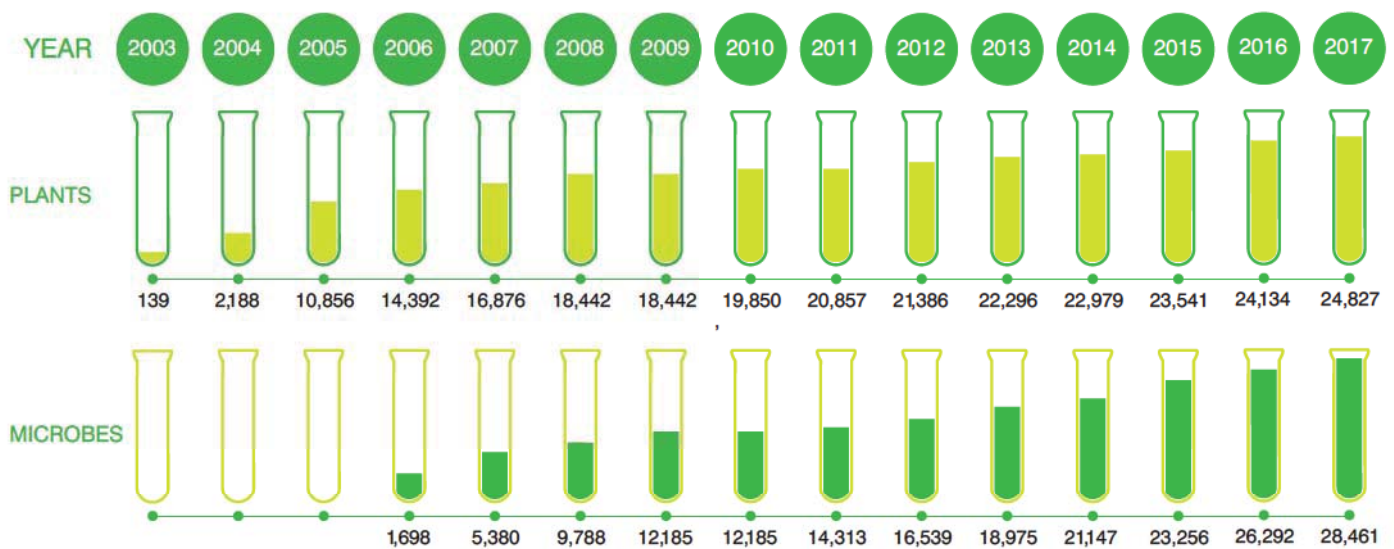
The R&D Programme objectives of SBC are to:

- continue growth of pilot scale development for biological resources and chemicals that have shown high potential for commercialization;
- continue to build and enrich information for SBC Natural Products from Sarawak's biological resources;
- create a diversified pipeline of products and innovations for commercialization;
- develop the State's human resources in the field of biotechnology; and
- implement the Sarawak Biodiversity Centre Ordinance and its provisions for Access and Benefit Sharing (ABS)

Natural Product library

SBC's Natural Product Library was established in 2004. Since then, the number of plant and microbial extracts has reached 24,547 and 28,461, respectively. A vast collection of bio-resources, including microbes and indigenous plants from Sarawak, makes SBC's Natural Product Library an important database facilitating discovery of drugs and other products derived from natural resources.

In 2017, we have successfully generated 693 plant and 2,161 microbe extracts. Due to an increasing demand for naturally-based products, SBC can leverage the value of these extracts to accelerate discovery by utilising their biological properties. Therefore, strong engagements with high net worth collaborators are important to enrich the Natural Product Library to produce research findings with commercial value.



Sample Extraction

The processing of natural products starts with pre-preparation of raw plant material, which is important for preservation of the bioactive compounds in the plant samples prior to extraction. Plant samples received from the Traditional Knowledge Programme collection are processed based on standard operating procedures established to maintain the quality of raw plant materials.

Most plant samples are oven dried at 45°C or kept in a chiller at 4°C before extraction. All extracted plant samples are monitored through the Laboratory Information Management System (LIMS), and barcoded to ensure that the information of the extracts are captured and protected. All plant samples are deposited in the SBC's Natural Product Library.

Large Scale Extraction

2017 was marked by two research collaborations involving large scale extraction of plants, with a multinational food and beverage company, and a university in Singapore.

In collaboration with the multinational company, six plants were selected for large scale extraction, and this work yielded 250 grams of extract from each plant for analysis.

Collaboration with the university in Singapore has resulted in one targeted plant which is active in anti-diabetic assay. Large scale collection of the plant was conducted, and the extract was sent for further analysis and development while SBC concentrates on mass propagation of plants with the community.

Small Scale Extraction

Another 99 plant extracts were selected and sent for screening as part of collaborative research initiatives with national and international universities and institutes, as well as biotechnology and pharmaceutical companies.



Analytical Chemistry

The role of the Analytical Chemistry Laboratory is to identify bioactive compounds isolated from the natural resources available in Sarawak. The common work flow is based on bioassay-guided fractionation.

A total of 361.9mg of silvestrol (an anticancer compound) and 355.8mg of epi-silvestrol were isolated. These compounds are for in-house and outsource testing, as well as for potential buyers who are interested in purchasing silvestrol for research purposes.

Collaboration with the Singapore Immunology Network (SIgN) has resulted in the

Interestingly, the same actinomycete strain also possesses anti-malaria activity. The isolation and identification of bioactive compounds for anti-malaria activity is still in progress.

Collaboration with Gretals Australia PTY LTD and Swinburne University of Australia has resulted in identification of two plants that have potential for taste masking and anti-anthelmintic properties, respectively. SBC is in the process of large scale extraction to accumulate sufficient amount of extract for the next step in testing, formulation, and product development stages.

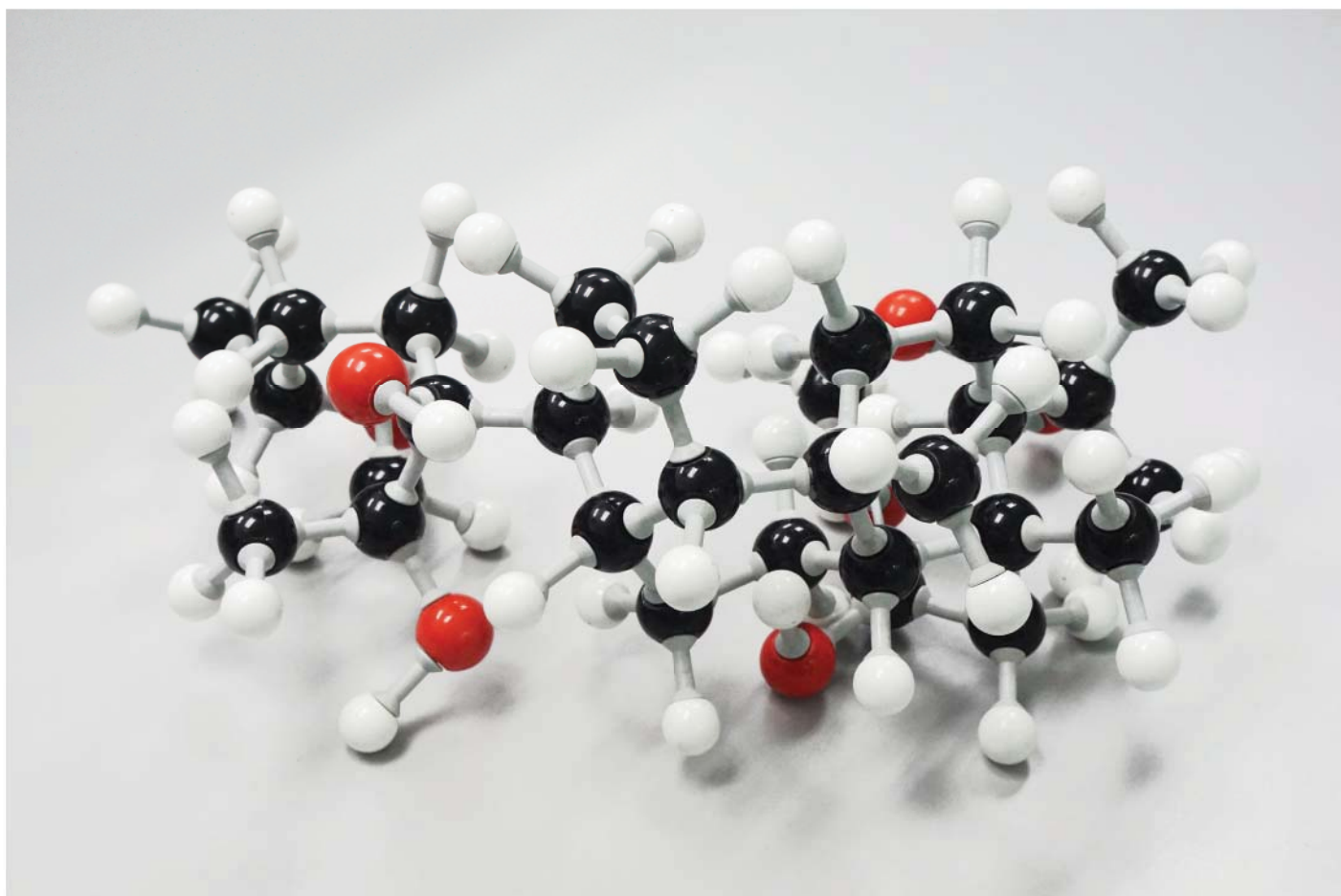
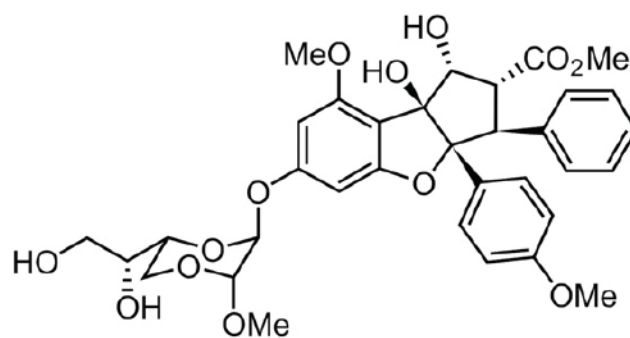
Isolation and fractionation work has also been



identification of four bioactive compounds isolated from actinomycetes for anti-chikungunya. Due to the low abundance of the bioactive compounds, only two bioactive compounds were isolated in bulk for analysis and identification. The identified bioactive compounds were related to a known antibiotic compound. A manuscript describing this research collaboration work is currently underway.

carried out for the *Homalomena* plant. The aim is to isolate preservative-like compounds that can be incorporated into skin care products. A pure compound has been isolated from the active fractions. Based on the NMR data, the compound is likely to be a lipid-based compound. Identification of this active compound is still underway.

SBC is currently seeking an effective pre-fractionation treatment method for a crude methanol extract of *Aglaia stellatopilosa*, which has promising anti-microbial activity. The ultimate aim is to obtain a discoloured extract with anti-microbial activity that can be used for the development of anti-dandruff products. Further investigation and confirmation of selected pre-fractionation treatment methods needs to be completed to ensure the reliability of the results obtained.



A 3D model of silvestrol chemical compound structure

Microbiology

In 2017, SBC participated in the Heart of Borneo (HoB) Scientific Expedition at Tama Abu, Marudi, Miri to collect samples for microbial isolation. Other environmental samples collected for isolation included those from a mangosteen orchard in Samarahan Kuching, palm oil plantation in Miri, and an organic farm in Serian. The total number of strains isolated in 2017 is 558, consisting of 476 actinobacteria and 82 fungi strains.

Actinobacteria strains identified comprise 19 genera and 85 different possible species (see Figure 1) while fungal strains include representatives of 14 genera with 30 possible different species (see Figure 2). Extracts generated totalled 2,161, consisting of 1,506 actinobacterial and 655 fungal extracts. These extracts were also subjected to antimicrobial screening as part of the extract profiling initiative. A total of 374 hits were detected as having activity against 1 or more test strains (see figure 3).

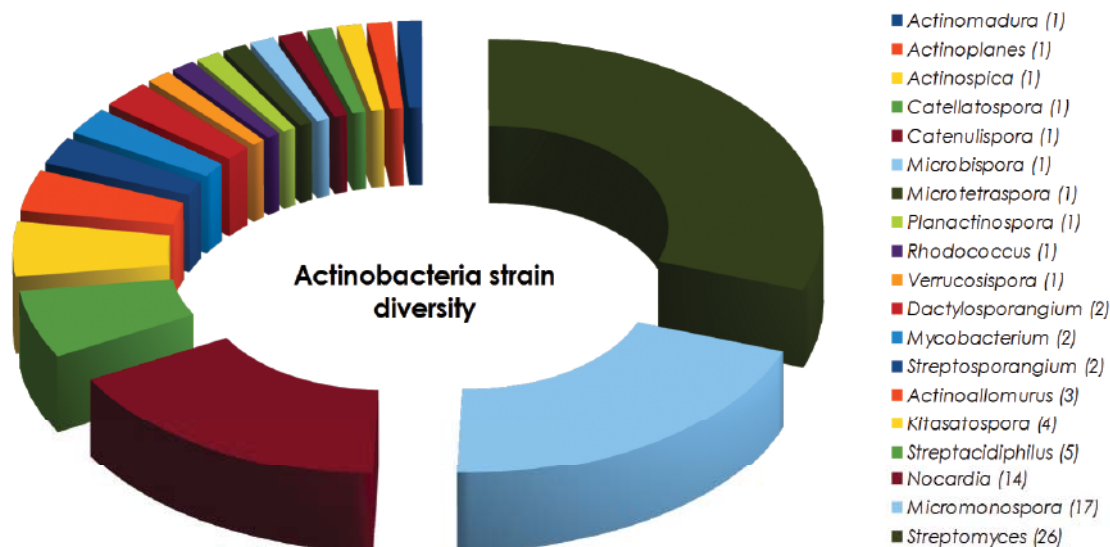


Figure 1: Actinobacteria strain diversity comprising of 19 genera with 85 different species



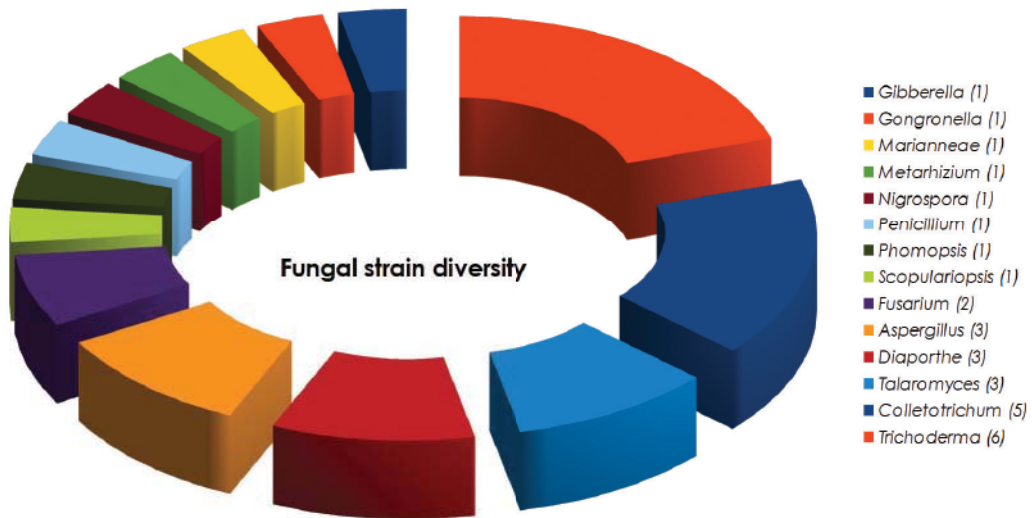


Figure 2: Fungal strain diversity comprising of 14 genera with 30 different species

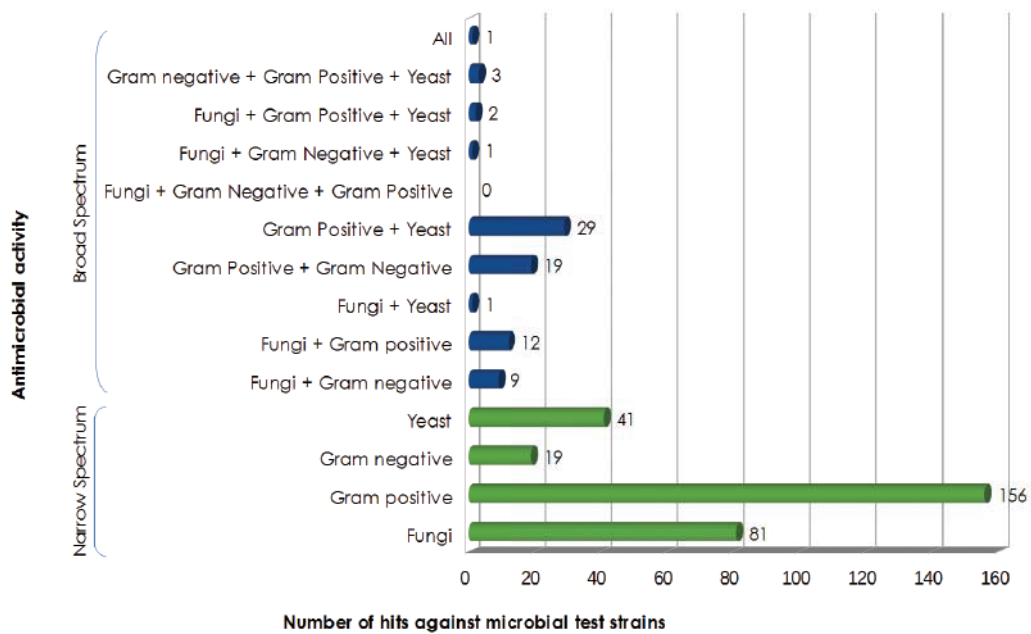


Figure 3. Microbial Extracts Bioactivity profile



Molecular Biology

Inflammation is part of the body's immune response to harmful stimuli, such as pathogens, damaged cells, or allergens. The inflammatory process, which involves immune cells and molecular mediators, is important in initiation of the healing process in damaged tissues. However, chronic inflammation may lead to a host of diseases such as atherosclerosis, rheumatoid arthritis, or even cause some cancers.

Some people are affected by auto-immune diseases, in which their immune system mistakenly attacks healthy cells. Rheumatoid arthritis, psoriasis/psoriatic arthritis, and inflammatory bowel disease are some of the better-known auto-immune diseases.

In 2017, the Molecular Biology Laboratory started work with an enzyme-linked immunosorbent assay (ELISA) to screen for extracts, compounds, and essential oils to determine their immunomodulatory properties. Selected samples were tested on mouse macrophage (RAW264.7) cells and human T-lymphocyte (Jurkat) cells and assayed against a panel of 12 inflammatory cytokines to identify cytokines that were either up- or down-regulated in the sample.

Additionally, dose dependent studies were also carried out using single analyte assay. Currently, the lab has developed tumour

necrosis factor-alpha (TNF- α), IL-6, IL-10, IL-12, and granulocyte-colony stimulating factor (G-CSF) assays for RAW264.7 cells, as well as the IL-2 and IL-8 assays for Jurkat cells.

The Molecular Biology Laboratory also carried out various assays to screen for extracts with anti-cancer, anti-proliferative, or prolyl oligopeptidase (POP) inhibitory activities. These screenings are also used in bioassay guided-fractionation for the isolation of bioactive compounds.

Another role of the Molecular Biology Laboratory is to carry out amplification and sequencing of plant and microbial samples for molecular identification. A total of 2,433 samples were processed, out of which 1,337 were fungal samples, 854 were actinomycete samples, 102 were algal samples and 140 were plant samples.

Plant Tissue Culture

In 2017, the Plant Tissue Culture (PTC) Laboratory continued work on plants of interest for conservation and mass propagation. PTC continually seeks to improve research methods and to obtain quality genetic materials from plants that can increase yield and, have horticulture potential.

The PTC team has been working on improving existing propagation methods of beneficial plants via conventional and plant tissue culture. These plants, from wild collections or cuttings, are planted at SBC's nurseries, plant head-house, and planter boxes in order to produce raw materials for research purposes.

Since 2016, PTC has also been managing a pilot scale planting plot at the Agriculture Research Centre (ARC), consisting of an initial 0.33 acres of land and expanded to another 0.68 acres in 2017. The objectives of this pilot scale planting

plot are for extraction of plant essential oils, proof of concept that aromatic plants can be cultivated in farms, collect information on specific agricultural values (production per area size, quantity of oil per area size, and quantity of necessities required), and to conduct agronomic studies.

Under the United Nations Development Programme (UNDP) project, five villages (Kampung Kiding, Pa'Lungan, Pa'Ukat, Long Kerabangan, and Long Telingan) have proved receptive to the recommended propagation methods for *Litsea cubeba*, a plant which produces an essential oil called LitSara®. Currently, these villages have their own nurseries for propagation as part of ongoing conservation and sustainable harvesting efforts.



Product Development

The focus of the Product Development team is on extraction of essential oils, scent trapping, formulation of personal care products, constructing scent and quality control. Its activities include distillation of essential oils from aromatic plants collected from the Traditional Knowledge Programme, test plots at the ARC, and contract farming with local communities. The team also plays a crucial role in the formulation of natural and

LitSara® Project: Development and Quality Controls of LitSara® Products

Development of product formulation was conducted on bar soap, body wash, shampoo, and liquid hand wash in 2017. Improvements to these products include the development of palm oil-free formulations, and prolonging specific scents and shelf lives of each product. Quality controls also took place to ensure products received from manufacturers are acceptable and in accordance with SBC specifications.



herbal based products as well as in analysing the quality of essential oils and products developed.

In 2017, a total of 33 essential oils were deposited, bringing the total of essential oils recorded in SBC's Natural Product Library to 453 at the end of December 2017. Essential oil extracts are analysed using Gas Chromatography Mass Spectrometry (GCMS) for compounds identification.

Scent Project: Initial Fragrance Assessment of Scalability, Reproducibility and Stability

In 2017, the Scent Project focused on the assessment of scalability, reproducibility, and stability of floral fragrances reconstructed. These activities were done together with consultant from IML Development Services. The goal of this project was to assess suitability of the reconstructed fragrances for commercial scale manufacturing. It focused on fragrances of three plants (*Phalaenopsis bellina*, *Hedychium coronarium*, and *Coelogyne asperata*). Through these activities, scent reconstruction

procedures were reviewed and Standard Operating Procedures (SOP) were generated. Each fragrance was synthesized three times using the established SOP.

Overall, for all three scents, the testers verified that the qualities were the same but varied in intensity. The intensity scores from different storage conditions were evaluated based on the average of three testers.

In general, the data indicates that fragrances



are relatively stable for all three products, which are likely to have a shelf life of 18 months based on accelerated stability study conditions simulated by elevated temperature at 45°C.

In conclusion, this work has indicated that the scents are scalable and have the potential to be stored for long term use and for commercialisation.



Strengthen our Culture of Collaboration

SBC establishes research collaborations with corporate and research organizations around the globe to maximise its effort in adding value to biodiversity and to enhance research excellence. As a result, a total of 51 research collaborations were established until December 2017: 28 of them are corporate organizations and 23 are research institutions.

The agreements signed are categorised as:

1. Agreement (AG),
2. Materials Transfer Agreement (MTA),
3. Non-Disclosure Agreement (NDA),
4. Confidentiality and Non-Disclosure Agreement (CNDA), and
5. Memorandum of Understanding (MOU).
Some of the research collaborators have more than one project with SBC.

Highlight of collaborations established in 2017

SBC established seven new research collaborations with international and national research institutions and corporate organizations.

Among these seven, three of the research collaborators were at the discussion stage to determine the scope of collaboration in which Confidentiality and Non-Disclosure Agreements have been signed.

The other four consist of research collaborations in which the scope of collaborations have been identified and involve of the transfer of materials for testing and screening. These are:



GS Caltex Corporation, Korea

SBC entered into a research agreement with GS Caltex Corporation to evaluate the suitability of Sarawak's extracted sap from the expired oil palm trunk to be used as research material.



Interhill Group of Companies (IG) and Pullman Kuching & Pullman Miri Waterfront (Hotels)

Interhill Group, the owning company for both Pullman Kuching and Pullman Miri Waterfront Hotel entered into an agreement with the Sarawak Biodiversity Centre (SBC) for collaboration on the sale of LitSara® products. The collaboration is part of Interhill and its hotels CSR initiative in giving back to the indigenous community.



Satoyama Farm Sdn Bhd

Satoyama collaborates with SBC in isolation and screening of soil associated microbes for enhancing agriculture.



Gretals Australia PTY LTD

SBC is working with Gretals on evaluation of Sarawak's plants for development of health care and agriculture based products.



Traditional Knowledge (TK) Documentation Programme

Since 2004, the Traditional Knowledge (TK) Documentation Programme carried out by SBC has documented 5,924 plants used by the local indigenous communities throughout Sarawak. Out of these, 1,320 species have been identified and identification work is still on-going.

Seventeen ethnic communities from 77 villages and locations have participated in the TK Documentation Workshops or in plant collection activities.

The number of plants documented and the name of the village/location involved are listed in Table 1.

Table 1: The number of plants documented and the names of the village and location.

Community	Location		Total Plant Collected	Total
Bidayuh	1	Kampung Duyoh, Bung Jagoi, Bau, Kuching	46	1,167
	2	Kampung Kiding, Padawan, Kuching	530	
	3	Kampung Semadang, Penrissen, Kuching	311	
	4	Kampung Semban, Padawan, Kuching	124	
	5	Kampung Serin, Serian	17	
	6	Kampung Lanchang, Serian	59	
	7	Kampung Simuti, Padawan, Kuching	50	
	8	Kampung Chupak & Skuduk, Siburan, Kuching	14	
	9	Kampung Peninjau Baru, Serumbu, Bau, Kuching	16	

Iban	1	Rumah Skatap, Betong	276	1,353
	2	Rumah Janang (previously known as Rumah Nyambong), Selangau, Sibul	89	
	3	Rumah Emak, Kapit	89	
	4	Rumah Changai, Song, Kuching	86	
	5	Rumah Simon/Rumah Baia Panjai, Batang Ai, Lubok Antu, Sri Aman	86	
	6	Rumah Bana, Sebauh, bintulu	70	
	7	Rumah Roland (previously known as Rumah Lulut), Kapit	55	
	8	Rumah Rapak Tepus, Pantu, Sri Aman	54	
	9	Rumah Bajau, Julau, Sarikei	71	
	10	Rumah Ngumbang, Nanga Sumpa, Batang Ai, Sri Aman	32	
	11	Kampung Sual, Simunjan, Samarahan	53	
	12	Ulu Mentawai expedition, Limbang	51	
	13	Rumah Entakong, Nanga Sumpa, Sri Aman	54	
	14	Rumah Misoon, Sibuti, Miri	45	
	15	Kampung Sungai Rama, Sebuyau, Samarahan	35	
	16	Karangan Mong, Lubok Antu, Sri Aman	20	
	17	Rumah Kino, Lubok Antu, Sri Aman	17	
	18	Rumah Tanjung Baru, Maludam, Betong	16	
	19	Kampung Jambu Kelampak, Ulu Layar, Betong	12	
	20	Rumah Sabang Babang, Krian, Saratok, Sarikei	14	
	21	Rumah Charlie, Nanga Melipis, Kanowit, Sibul	14	
	22	Rumah Abok/Kampung Mulong, Beluru, Miri	20	
	23	Rumah Encharang, Banting, Lingga, Sri Aman	20	
	24	Kampung Pulau Sibau, Balleh, Kapit	40	
	25	Rumah Nyalong, Pakan, Sarikei	34	
Kayan	1	Rumah Lesong, Sungai Asap, Belaga, Kapit	81	232
	2	Long Bedian, Baram, Miri	75	
	3	Uma Bawang, Long Lama, Baram, Miri	29	
	4	Long Amo, Belaga, Kapit	47	
Kelabit	1	Pa' Derung, Bario, Miri	12	478
	2	Pa'Lungan, Bario, Miri	303	
	3	Pa'Ukat, Bario, Miri	163	
Kenyah	1	Long Pelutan, Baram, Miri	127	212
	2	Long Ikang, Marudi, Miri	58	
	3	Long Palai, Baram, Miri	13	
	4	Long Apu, Baram, Miri	14	
Lun Bawang	1	Ba' Kelalan, Lawas, Limbang	48	583
	2	Long Kerabangan, Lawas, Limbang	184	
	3	Long Telingan, Lawas, Limbang	120	
	4	Long Sebangang Asal, Lawas, Limbang	49	
	5	Long Tuyo/Paya Maga Expedition, Lawas, Limbang	137	
	6	Long Tuyo/Long Sukan, Lawas, Limbang	45	

Melanau	1	Kampung Jebungan, Mukah	96	215
	2	Kampung Pangtray, Daro, Mukah	48	
	3	Kampung Jemoreng, Matu, Mukah	30	
	4	Kampung Paloh, Belawai, Mukah	20	
	5	Kampung Igan, Mukah	21	
Penan	1	Long Iman, Mulu, Marudi, Miri	538	1,094
	2	Batu Bungan, Mulu, Marudi, Miri	452	
	3	Long Latei, Long Bedian, Marudi, Miri	6	
	4	Long Wat, Murum, bintulu	51	
	5	Long Seridan, Miri	9	
	6	Long Malim, Murum, bintulu	38	
Punan	1	Rumah Ado, Tatau, bintulu	39	39
Selako	1	Kampung Pueh, Sematan, Kuching	112	112
Kedayan	1	Rumah Ajan, Merapok area, Lawas, Limbang (with Iban & Lun Bawang communities)	85	85
Tabun	1	Kampung Kuala Medalam, Nanga Mendamit, Limbang	51	51
Bisaya	1	Kampung Bidang, Limbang	30	30
Malay	1	Sundar, Lawas, Limbang (with Lun Bawang & Chinese)	16	156
	2	Maludam area, Maludam, Betong (with Iban community)	25	
	3	Kampung Hulu, Bako, Kuching	15	
	4	Kampung Hilir, Bako, Kuching		
	5	Sebuyau area, Samarahan	48	
	6	Kampung Pasir Pandak, Santubong, Kuching	28	
	7	Kampung Selabat/Pasir Putih, Muara Tebas, Kuching	24	
Beketan	1	Rumah Seking, Nanga Merit, Kapit	19	19
Sa'ban	1	Long Banga expedition, Baram, Miri	65	65
Sekapan	1	Kampung Sekapan Piit, Belaga, Kapit	33	33
Total Number of Plants Collected				5,924

Community of Kampung Palau Sibau, Balleh, Kapit preparing herbarium specimens.



In 2017, SBC carried out eight TK Consultative Meetings with community leaders and also conducted seven sessions of the 1st TK Documentation Workshops in the following districts and areas:

No	TK Consultative Meeting	1st TK Documentation Workshop
1	Bidayuh community at Krokong area, Bau District Area, Bau, Kuching	Iban community at Rumah Charlie, Nanga Melipis Kanowit, Sibiu
2	Iban community, Bukit Mabong Sub-District Office, Baleh, Kapit	Iban community at Rumah Abok/Kampung Mulong, Beluru, Miri
3	Iban/Melanau community, bintulu District Office, bintulu	Melanau community at Kampung Igan, Igan, Mukah
4	Tanjong community, Kapit District Office, Kapit	Iban community at Rumah Encharang Banting, Lingga, Sri Aman
5	Orang Ulu community, Telang Usan District Office, Long Lama, Baram, Miri	Sekapan community at Kampung Sekapan Piit, Belaga, Kapit
6	Tagal community, Lawas District Office, Lawas	Iban community at Kampung Pulau Sibau, Balleh, Kapit
7	Iban community, Bukit Sadok, Ulu Layar, Betong for LitSara® project	Iban community at Rumah Nyalong, Pakan, Sarikei
8	Lun Bawang community, Long Rusu, Ba'kelalan, Lawas for LitSara® project	



Consultative meeting with community leaders at Lawas District office, Lawas.

SBC also carried out seven field trips in the following areas:

1. Iban community at Rumah Misoon, Sibuti, Miri.
2. Penan community at Long Malim, Murum, Bintulu.
3. Penan community at Long Wat, Murum, Bintulu.
4. Kedayan community at Rumah Ajan, Merapok area, Lawas, Limbang.
5. Bidayuh community at Kampung Semban, Padawan, Kuching.
6. Iban community at Kampung Jambu Kerampak, Ulu Layar, Betong.
7. Iban community at Rumah Bajau, Julau, Sarikei.

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

SBC-MNRE-UNDP ABS Project-“Creating a value chain leading to the development of products for the healthcare, personal care and cosmeceutical industries from Traditional Knowledge Associated with Genetic Resources and Benefit Sharing in Sarawak”.

Activities carried out under the project in 2017 were:

1. Follow-up trip on propagation and inventory of *Litsea cubeba*.
2. Dialogue sessions with Kelabit communities at six villages (24 representatives) in Bario on ABS and LitSara® Project.
3. Dialogue sessions on ABS and LitSara® Project.
4. Dialogue sessions on draft benefit sharing agreement and LitSara® Project.
5. The construction of distillation shed for communities.
6. TK Seminar with community at SBC on 18 - 19 May 2017.
7. SBC-Pullman launching event at Pullman Hotel Kuching on 18 April 2017.
8. Rainforest World Music Festival at Sarawak Culture Village on 14 - 16 July 2017.
9. ABS Workshop with community at SBC on 7 November 2017.

Collection of plant raw materials

Targeted raw materials have been collected from various locations for further research. The plants and locations are as follows:

1. SABC 8496 collected from Rumah Bajau, Julau, Sarikei for the study of sugar control in blood by National University of Singapore (NUS).
2. SABC 0200 collected from Kampung Semadang for the study of animal feeds by GRETALS Australia Pty Ltd.
3. SABC 12110 collected from Pa'Ukat, Long Kerabangan and Long Telingan for the study of active ingredient by GRETALS Australia Pty Ltd.
4. Bunga Ta'ang collected from Kampung Semadang for essential oil study.

Sweetener and Flavour Project

Three species were collected in bulk for raw materials and further research by:

1. Bidayuh community at Kampung Jagoi, Bau, Kuching.
2. Iban community at Rumah Janang, Selangau, Sibiu.
3. Tabun community at Kampung Kuala Mendalam, Limbang.

27 species of plants were collected and processed. Five locations were involved in the collection of raw materials. These locations are:

1. Iban community at Rumah Sabang Babang Krian, Saratok, Betong.
2. Iban community at Kampung Jambu Kerampak, Ulu Layar, Betong.
3. Iban community at Rapak Tepus, Pantu, Sri Aman.
4. Bidayuh community at Kampung Semban, Padawan, Kuching.
5. Kedayan community at Rumah Ajan, Merapok area, Lawas, Limbang.

Purchase of aromatic plant for essential oil

Raw materials for essential oil and chemical profiling were collected from Long Tuyo and Kampung Semadang.

Sarawak Biodiversity Centre Ordinance 1997 and Sarawak Wild Life Protection Ordinance 1998 Awareness Workshops

SBC carried out six awareness workshops with the following agencies:

1. Research Officers of Agriculture Research Centre on 30 March 2017.
2. Lecturers and researchers of Universiti Putra Malaysia (UPM) Bintulu on 10 April 2017.
3. Courier Services companies in Kuching on 25 April 2017.
4. Aviation Security (AVSEC) Sibul Airport, Tour Guide Association Sibul, Government and Enforcement Agencies, Resident and District Office in Sibul & Kapit Region, Municipal and District Council as well as Institutions of Higher Learning on 09 May 2017.
5. Aviation Security (AVSEC) Miri Airport, Government and Enforcement Agencies, Resident and District Office in Miri Region, Municipal Council and Institutions of Higher Learning on 27 July 2017.
6. Research Innovation and Management Centre, UNIMAS on 10 August 2017.



Plant collection with the Bidayuh community of Kampung Semban, Padawan under PepsiCo project.

Laila Taib Ethnobotanical Garden

In 2017, a total of 515 plants were grown in the garden, comprising of 92 families and 411 species. The plants were collected from 13 different ethnic communities in Sarawak that participate in SBC's Traditional Knowledge Documentation programme, including Bidayuh, Bisaya, Iban, Kayan, Kelabit, Kenyah, Lun Bawang, Malay, Melanau, Penan, Punan, Selako, and Tabun.

The garden plays an important role for ex-situ conservation of useful indigenous plants

and features the diversity of plants found in Sarawak. In the same year, there were 110 visits from various schools and corporations, both international and local.

During these visits, visitors are briefed on beneficial plants used as medicines, food, crafts, rituals, building materials, and other purposes. This enables visitors to increase their understanding of the importance of documenting traditional knowledge of useful plants.



Visit by Clinical Research Malaysia on 11 July 2017



Dr. Sam 'Ohu Gon, The Conservancy's Hawai'i Senior Scientist and Cultural Advisor presents a public awareness talk entitled Balancing Economic Development And Environmental Conservation through a Community-Based Approach

Biodiversity-Biotechnology Awareness & Appreciation Programme

SBC's Biodiversity – Biotechnology Awareness and Appreciation programme aims at creating awareness towards the State's rich biodiversity, and its biotechnology initiatives among the general public and targets groups such as scientists, researchers, policy makers, and business and industry players.

These initiatives are carried out through activities such as Awareness and Appreciation visits to SBC for numerous interest groups including schools, NGOs, and government departments and agencies; participating in exhibitions; carrying out activities with schools and organizing public talks; and through the Centre's annual flagship event, the Biodiversity Day celebrations held at its premises.

In 2017, SBC carried out, organised, and participated in the following activities:

No	Activity	Number of Activities Achieved in 2017
1	Awareness & Appreciation Visits (schools/ institutions/ organizations)	110 Visits
2	Public Awareness Visit to Schools/Divisional Awareness Talk	1 Visit
3	Public Awareness Talks/Workshops	10 Public Talks/Workshops
4	Participation in School Programme	5 Programmes
5	Participation at Exhibitions	10 Exhibitions
6	Press releases/Articles/Features	25 Press Releases/Articles published
7	SBC Publication/Promotional Materials	2 Publications
8	Biodiversity Day	1 Event

SBC Biodiversity Day 2017

The 2017 SBC Biodiversity Day with the theme “Biodiversity and Sustainable Tourism” was held on 20th May, in conjunction with the International Day for Biological Diversity which is observed on 22nd May annually.

The event was aimed at promoting awareness of, and appreciation for, Sarawak’s local biodiversity among all sectors of society and creating awareness among the general public, as well as of SBC’s role in sustainable research and development on Sarawak’s biodiversity.

Various activities were carried out throughout the event, and these included: Recycled Art Craft Contest for school children; exhibitions on biodiversity and R&D carried out on traditional uses of biodiversity; traditional sauna; games, demonstrations, and hands on science-based activities; scent trekking; and also exhibitions by invited agencies and communities.

Approximately 661 visitors attended, including participants of the recycle art craft contest, students, invited guests, judges, parents, teachers, and the general public.



SBC's Participation at the Rainforest World Music Festival (RWMF) 2017

SBC was invited to feature its work on Traditional Knowledge and Access and Benefit Sharing projects with the indigenous communities in Sarawak at the annual Rainforest World Music Festival held on 14th – 16th July.

During the three-day event, SBC, alongside communities involved in the LitSara® project, focused on promoting LitSara® products, its Traditional Knowledge Documentation programme, the concept of Benefit Sharing with the communities, and examples of plants

utilised by the communities in Sarawak. The communities which took part in this event were the Bidayuh from Kampung Kiding in Padawan and the Kelabit of Pa'Ukat and Pa'Lungan, Bario.

Dr. Kamala Vainy Pillai of Curtin Malaysia, Sarawak, also volunteered at the booth for the three days to market LitSara® and to create awareness of SBC's work with indigenous communities.

SBC also conducted soap making demonstrations, as well as offering the visitors to the booth the experience of using LitSara® and other scents derived from plants found in Sarawak.



Visitors to RWMF-2017 posing with LitSara® products



Explaining the Access & Benefit Sharing (ABS) concept behind the LitSara® story



Visitors trying out the soap products at SBC's booth



Thumbs up for SBC's Scented Foot Spa!



Soap-making session

SBC's Participation at the 10th International Kuala Lumpur Eco Film Festival 2017

On 26th – 29th October, SBC participated in the 10th International Kuala Lumpur Eco Film Festival 2017 at Publika, Solaris Dutamas, Kuala Lumpur to highlight its work on Traditional Knowledge and Access and Benefit Sharing projects with the indigenous communities in Sarawak.

Throughout the four-day event, SBC promoted its LitSara® products, the Traditional Knowledge Documentation programme, and the concept of Benefit Sharing with the communities.

the technical assistance of the Japanese biotechnology organisation, the CHITOSE Group.

The collaboration will devise new designs in cultivation technology on a long-term, semi-continuous basis and generate upscale production of algae strains to reach market size, and will be extended until 2018.

On 5th April 2017, the Chief Minister Datuk Amar Abang Johari Tun Openg witnessed the official exchange of agreement documents at SBC between Deputy General Manager of New Business Development Office, Energy Business Group CEO Office Tokyo, Mr Junji



Exchange of Collaboration Agreement Documents between Mitsubishi Corporation and the Sarawak Biodiversity Council

The Sarawak Biodiversity Council (SBC) and Mitsubishi Corporation (MC) have moved into Phase III of its research collaboration to implement an outdoor facility to demonstrate and validate commercially viable microalgae biomass production technologies with

Nakanishi on behalf of MC and SBC Chairman YB Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani, who also serves as the Sarawak State Secretary.

The collaboration between SBC and MC is a joint effort towards the commercialisation of microalgae research that combines industrial biotechnology and the unique bio-resources to provide global demand for sustainable feedstock from renewable sources.

This collaboration also aims at developing a large scale outdoor microalgae cultivation system which consists of 1,000 m² closed photobioreactors to inform the engineering and construction of a larger commercial facility.

Laboratory research at SBC identified several strains of microalgae, which are robust and have desired bio-chemical contents suitable as health supplements.

and represents part of Interhill Group's corporate social responsibility initiative in giving back to the indigenous communities.

Under this collaboration, the LitSara[®] souvenir set, which consists of natural personal care products will be displayed for sale at both Pullman Kuching and Pullman Miri Waterfront. Proceeds from the sale of these souvenirs will be forwarded to the indigenous communities involved in the development of the products.



Launching of LitSara Corporate Social Responsibility (CSR) Collaboration between Sarawak Biodiversity Centre and Pullman Hotels – Interhill Group

Interhill Group, which owns both Pullman Hotels in Kuching and Miri Waterfront, is collaborating with the Sarawak Biodiversity Centre (SBC) to promote and sell LitSara[®] products. This collaboration is the first corporate partnership for the LitSara[®] project

The agreement was signed in April 2017 by Interhill Group Executive Director, Albert Hu, and Chief Operating Officer (Hospitality Division), Mr Eric Tan, while SBC was represented by the Sarawak State Secretary, YB Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani, who is also its Chairman, and Dr Yeo Tiong Chia, Chief Executive Officer of SBC.

With this collaboration, the SBC's Chairman encouraged the group to play an active role in raising awareness for the project and promoting the concept of its benefit sharing. He simultaneously advised the communities who have made the LitSara Project to keep up the momentum and continue collaborative efforts with SBC.





Developing Young Talents in Science: Industrial Training and Internship Programmes at SBC

SBC's internship and industrial training programmes provide opportunities for undergraduate and graduate students to engage in the workings of an actual research organisation, building research connections, as well as hone their laboratory skills.

The trainees and interns are also provided opportunities to participate in SBC's various outreach programmes, while those from overseas get to immerse in Sarawak's local cultures and delicacies.

Undergraduates typically carry out their training at SBC for between eight to twelve weeks in SBC's laboratories and working on mini projects. Graduate students spend between one to ten months interning at SBC, focusing on their respective research projects.

The industrial training and internship programmes at SBC are also targeted at developing Sarawak's own talent pool of young scientists, as well as establishing and maintaining research networks with the local and foreign universities.

Since the programme first began in year 2001, SBC has hosted a total of 197 interns and industrial trainees from universities – both local and foreign.

In year 2017, 12 students from six universities carried out their industrial training, while two students from one research institution interned with SBC on research projects that revolved around molecular biology, microbiology, analytical chemistry, plant tissue culture and traditional knowledge documentation.

Certificate of Achievement for 3 consecutive years without sick leave (2014 – 2016) – 11 staff

1. Rosy anak Tian Lin
2. Margarita Naming
3. Barbara anak Ngikoh @ Nyikoh
4. Bee David anak Lamada
5. Bernardine Ida anak Joseph Jinam
6. Clare Heinzie anak Juhin
7. Fesmuela anak Kagong
8. Joeng anak Melos
9. Ng Yik Han
10. Sabda bin Safiee
11. Sunarjo bin Suip

Certificate of Achievement for 10 consecutive years without sick leave (2006 – 2016) – One staff

1. Rosy anak Tian Lin

Sijil Penghargaan Perkhidmatan Cemerlang Tahun 2016 – 28 staff (LPPT 85% and above)

1. Margarita Naming
2. Gilbert Lau Sei Kung
3. Aloysius Sim Kwang Peng
4. Dr Ng Lee Tze
5. Ann Anni Basik
6. Hii Mei Mei
7. Christina Wong Hie Ping

8. Dr Noreha binti Mahidi
9. Noor Pahtiwati binti Bohari
10. Nuraqilah binti Othman
11. Tu Chu Lee
12. Jamilah binti Hassan
13. Diana Lim Siok Ley
14. Cynthia anak Seta
15. Ng Yik Han
16. Elaine Remi anak Douglas Telajan
17. Ajuwin Lain
18. Selwynn anak Edward Jaoi
19. Fesmuela anak Kagong
20. Aziman Ahmad
21. Tuanku Sukri bin Tuanku Rapahie
22. Ellen Tan Chia Min
23. Anna Ng Mei Na
24. Sherina Chew Leh King
25. Elsa Isla Jong
26. Rosy anak Tian Lin
27. Elizabeth Alice anak Gabriel Nasib
28. Hugh anak Doyos

Sijil Anugerah Perkhidmatan Cemerlang Tahun 2016 (APC) – Eight staff

1. Asha Devi Kaushal
2. Belinda Ng Ling Nah
3. Michele Mejin
4. Siti Muhaini binti Haris Fadzillah
5. Freddie anak Ambrose Ambol
6. Eskandar bin Ibrahim
7. Frankie anak Kumbak
8. Arzie binti Ramli

Participation at Conferences

No	Title	Presenter	Type	Conference/ Seminar/Workshop/ Exhibition	Date
1	A Marine-derived Rare Actinomycete, <i>Plantactinospora</i> sp. KBS50 as a Promising Source for Discovery of New Bioactive Natural Product Compound	Holed anak Juboi	Oral	International Conference on Natural Products 2017, Lumut	15 -16 March 2017
2	Documenting Traditional Knowledge of Useful Plants among Sa'ban Community of Long Banga, Baram	Arlene Alicia anak Toaiang	Poster	Heart of Borneo (HoB) Scientific Expedition Long Banga Seminar 2017, Imperial Hotel, Kuching	3 - 4 May 2017
3	Diversity of Endophytic Fungi and Actinobacteria Isolated from Plant Samples collected at Long Banga, Ulu Baram, Miri, Sarawak	Jamilah binti Hassan	Poster	Heart of Borneo (HoB) Scientific Expedition Long Banga Seminar 2017, Imperial Hotel, Kuching	3 - 4 May 2017
4	Bioprospecting the Rainforest in a Meaningful Way	Dr Yeo Tiong Chia	Oral	International Conference on Scientific Frontiers in Natural Product Based Drugs, Singapore	6 - 7 July 2017
5	The Benefits of Natural Products Library	Dr Ng Lee Tze	Poster	Borneo Scientific Meeting, 2017 at Riverside Majestic Hotel, Kuching	26 - 27 July 2017
6	Antimicrobial and Cytotoxic Activities of Fungi Isolated from <i>Gigantochloa</i> sp.	Joseph Niler anak Bimbang	Poster	Borneo Scientific Meeting, 2017 at Riverside Majestic Hotel, Kuching	26 - 27 July 2017
7	Cytotoxicity in Fungi Extract with Anti Gram Negative Properties	Asma Saiyidatina Aishah	Poster	Borneo Scientific Meeting, 2017 at Riverside Majestic Hotel, Kuching	26 - 27 July 2017
8	Evaluation of the Antibiotics and Secondary Metabolites Biosynthetic Potential of <i>Plantactinospora</i> sp. KBS50, a Rare Marine-derived Actinomycete	Holed anak Juboi	Poster	Master of Science (by Research) - Swinburne University of Technology, Sarawak	30 August 2017
9	Natural Product Discovery	Michele Mejin	Oral	Swinburne University of Technology, Sarawak	14 November 2017
10	Can Herbolgy Discover Cures for Tomorrow's Diseases?	Dr Yeo Tiong Chia	Oral	World Islamic Economic Forum, 2017 at BCCK, Kuching	21 – 23 November 2017
11	Traditional Knowledge Documentation of Commonly Used Plants among the Ethnic Community in Sarawak	Jovita Elderson anak Ripen	Oral	5th International Conference on Natural Resources in the Tropics (NRTrop5), Sibul & Kapit	27 November 2017 - 1 December 2017
12	One Strain, Many Compounds	Ng Yik Han	Poster	5th International Conference on Natural Resources in the Tropics (NRTrop5), Sibul & Kapit	27 November 2017 - 1 December 2017

SBC Audit Committee 2017



YBhg Datu Laura Lee Ngien Hion
Deputy State Financial Secretary
Chairman, SBC Audit Committee



YBhg Datu Lai Kui Fong
Director, Department of Agriculture
Member, SBC Audit Committee



Mr Peter Sawal
Controller, Natural Resources & Environment Board (NREB)
Member, SBC Audit Committee



Mr John Kennedy Janang
Principal Assistant Secretary,
State Financial Secretary's Office
Member, SBC Audit Committee



Ms Christina Wong Hie Ping
Accountant, Sarawak Biodiversity Centre
Secretary, SBC Audit Committee

SBC Establishment Committee 2017



YBhg Datu Haji Ismawi bin Hj Ismuni
Deputy State Secretary
Chairman, SBC Establishment Committee



Dr Haji Wan Lizozman bin Wan Omar
Permanent Secretary
Ministry of Urban Development and Natural Resources
Deputy Chairman, SBC Establishment Committee



YBhg Datu Lai Kui Fong
Director, Department of Agriculture
Member, SBC Establishment Committee



YBhg Datu William Nyigor
Principal Assistant Secretary,
State Financial Secretary's Office
Member, SBC Establishment Committee



Dr Yeo Tiong Chia
Chief Executive Officer, Sarawak Biodiversity Centre
Secretary, SBC Establishment Committee

SBC Finance and Investment Committee 2017



YBhg Dato Sri Ahmad Tarmizi bin Haji Sulaiman
State Financial Secretary
Chairman, SBC Finance and Investment Committee



Dr Haji Wan Lizozman bin Wan Omar
Permanent Secretary
Ministry of Urban Development and Natural Resources
Member, SBC Finance and Investment Committee



YBhg Datu Lai Kui Fong
Director, Department of Agriculture
Member, SBC Finance and Investment Committee



Tuan Haji Sapuan Ahmad
Director of Forests/Controller of Wildlife/Controller of National Parks
and Nature Reserves
Member, SBC Finance and Investment Committee



Dr Yeo Tiong Chia
Chief Executive Officer, Sarawak Biodiversity Centre
Member, SBC Finance and Investment Committee

Financial Statement for the Year Ended 2017

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SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

COUNCIL MEMBERS

- Chairman : State Secretary, Sarawak
YB Tan Sri Datuk Amar Haji Mohamad Morshidi bin Abdul Ghani (ceased 28 February 2018)
- : YBhg Tan Sri Datuk Amar Wilson Baya Dandot (appointed March 2018)
- Deputy Chairman : Permanent Secretary, Ministry of Urban Development and Natural Resources
Tuan Haji Dr Wan Lizozman bin Wan Omar (ceased 28 February 2018)
- : Permanent Secretary, Ministry of Education, Science and Technological Research
YBhg Datu Haji Sudarsono bin Osman (appointed 1 March 2018)
- Secretary : Chief Executive Officer, Sarawak Biodiversity Centre
Dr Yeo Tiong Chia
- Council Members : State Attorney General, Sarawak
Yang Arif Datuk Talat Mahmood bin Abdul Rashid
- : State Financial Secretary, Sarawak
YBhg Dato Sri Ahmad Tarmizi bin Haji Sulaiman
- : Permanent Secretary, Ministry of Urban Development and Natural Resources
Tuan Haji Dr Wan Lizozman bin Wan Omar (appointed 1 March 2018)
- : Deputy State Secretary (SET), Sarawak
YBhg Datu Haji Ismawi bin Ismuni (ceased 31 December 2017)
- : Deputy State Secretary (SET), Sarawak
YBhg Datu Haji Mohamad Abu Bakar bin Marzuki (appointed 1 January 2018)
- : Director, Department of Agriculture, Sarawak
YBhg Datu Lai Kui Fong (ceased 31 December 2017)
- : Acting Director, Department of Agriculture, Sarawak
Dr Alvin Chai Lian Kuet (appointed 2 January 2018)
- : Director, Department of Forest, Sarawak
Tuan Haji Sapuan Ahmad (ceased 31 December 2017)
- : Acting Director, Department of Forest, Sarawak
Encik Hamden bin Mohammad (appointed 1 January 2018)
- : Controller, Natural Resources and Environment Board
Encik Peter Sawal

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

OFFICER AND PROFESSIONAL ADVISORS

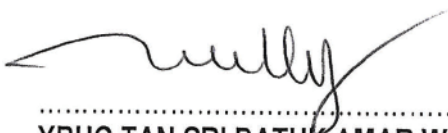
Chief Executive Officer	: Dr Yeo Tiong Chia
Registered office	: Lot 724 Block 3, Sentah-Segu Land District KM 20 Jalan Borneo Heights Semengoh, Locked Bag No. 3032 93990 Kuching Sarawak
Auditor	: Ketua Audit Negara Malaysia
Bankers	: Malayan Banking Berhad Level 1, Wisma Satok Jalan Satok 93400 Kuching Sarawak
	: RHB Bank Berhad Jalan Kulas 93400 Kuching Sarawak

PENYATA PENERUSI DAN TIMBALAN PENERUSI

Kami, YBHG TAN SRI DATUK AMAR WILSON BAYA DANDOT dan YBHG 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 Penyata Kedudukan Kewangan, Penyata Pendapatan Komprehensif, 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 MAJLIS KEPELBAGAIAN BIOLOGI SARAWAK pada 31 DISEMBER 2017 dan hasil kendaliannya serta perubahan kedudukan kewangannya bagi tahun yang berakhir pada tarikh tersebut.

Bagi pihak Majlis,

Bagi pihak Majlis,



.....
YBHG TAN SRI DATUK AMAR WILSON
BAYA DANDOT



.....
YBHG DATU HAJI SUDARSONO
BIN OSMAN

Tarikh: 25 April 2018

Kuching

Tarikh: 25 April 2018

Kuching

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

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

Saya, DR YEO TIONG CHIA, pegawai utama yang bertanggungjawab ke atas pengurusan kewangan dan rekod-rekod perakaunan **MAJLIS KEPELBAGAIAN BIOLOGI SARAWAK**, dengan ikhlasnya mengakui bahawa Penyata Kedudukan Kewangan, Penyata Pendapatan Komprehensif, 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)

dikukuhkan oleh penama di atas)

di KUCHING, SARAWAK)

padaharibulan.....



2018

DR YEO TIONG CHIA
(K.P. NO.: 660420-13-5379)

Di hadapan saya

MAGISTRATE

GREGORY ANAK WILFRED UKIK
SECOND CLASS MAGISTRATE
(In and for The State of Sarawak)



**LAPORAN KETUA AUDIT NEGARA
MENGENAI PENYATA KEWANGAN
MAJLIS KEPELBAGAIAN BIOLOGI SARAWAK
BAGI TAHUN BERAKHIR 31 DISEMBER 2017**

Laporan Mengenai Penyata Kewangan

Pendapat

Penyata Kewangan Majlis Kepelbagaian Biologi Sarawak telah diaudit oleh wakil saya yang merangkumi Penyata Kedudukan Kewangan Pada 31 Disember 2017 dan Penyata Pendapatan Komprehensif, Penyata Perubahan Ekuiti serta Penyata Aliran Tunai bagi tahun berakhir pada tarikh tersebut, ringkasan polisi perakaunan yang signifikan dan nota kepada penyata kewangan seperti dinyatakan pada muka surat 13 hingga 27.

Pada pendapat saya, penyata kewangan ini memberikan gambaran yang benar dan saksama mengenai kedudukan kewangan Majlis Kepelbagaian Biologi Sarawak pada 31 Disember 2017 dan prestasi kewangan serta aliran tunai bagi tahun berakhir pada tarikh tersebut selaras dengan piawaian pelaporan kewangan yang diluluskan di Malaysia dan *Statutory Bodies (Financial and Accounting Procedure) Ordinance, 1995* serta *The Sarawak Biodiversity Centre Ordinance, 1997*.

Asas Kepada Pendapat

Saya telah melaksanakan pengauditan berdasarkan Akta Audit 1957 dan *The International Standards of Supreme Audit Institutions*. Tanggungjawab saya dihuraikan selanjutnya di perenggan Tanggungjawab Juruaudit Terhadap Pengauditan Penyata Kewangan dalam laporan ini. Saya percaya bahawa bukti audit yang diperoleh adalah mencukupi dan bersesuaian untuk dijadikan asas kepada pendapat saya.

Kebebasan dan Tanggungjawab Etika Lain

Saya adalah bebas daripada Majlis Kepelbagaian Biologi Sarawak dan telah memenuhi tanggungjawab etika lain berdasarkan *The International Standards of Supreme Audit Institutions*.

Maklumat Lain Selain Daripada Penyata Kewangan dan Laporan Juruaudit Mengenainya

Ahli Majlis, Majlis Kepelbagaian Biologi Sarawak bertanggungjawab terhadap maklumat lain dalam Laporan Tahunan. Pendapat saya terhadap penyata kewangan Majlis Kepelbagaian Biologi Sarawak tidak meliputi maklumat lain selain daripada Penyata Kewangan dan Laporan Juruaudit mengenainya dan saya tidak menyatakan sebarang bentuk kesimpulan jaminan mengenainya.

Tanggungjawab Ahli Majlis Terhadap Penyata Kewangan

Ahli Majlis bertanggungjawab terhadap penyediaan penyata kewangan Majlis Kepelbagaian Biologi Sarawak yang memberi gambaran benar dan saksama selaras dengan piawaian pelaporan kewangan yang diluluskan di Malaysia dan *Statutory Bodies (Financial and Accounting Procedure) Ordinance, 1995* serta *The Sarawak Biodiversity Centre Ordinance, 1997*. Ahli Majlis juga bertanggungjawab terhadap penetapan kawalan dalaman yang perlu bagi membolehkan penyediaan penyata kewangan Majlis Kepelbagaian Biologi Sarawak adalah bebas daripada salah nyata yang ketara sama ada disebabkan fraud atau kesilapan.

Semasa penyediaan penyata kewangan Majlis Kepelbagaian Biologi Sarawak, Ahli Majlis bertanggungjawab untuk menilai keupayaan Majlis Kepelbagaian Biologi Sarawak untuk beroperasi sebagai satu usaha berterusan, mendedahkannya jika berkaitan serta menggunakannya sebagai asas perakaunan.

Tanggungjawab Juruaudit Terhadap Pengauditan Penyata Kewangan

Objektif saya adalah untuk memperoleh keyakinan yang munasabah sama ada penyata kewangan Majlis Kepelbagaian Biologi Sarawak secara keseluruhannya adalah bebas daripada salah nyata yang ketara, sama ada disebabkan fraud atau kesilapan, dan mengeluarkan Laporan Juruaudit yang merangkumi pendapat saya. Jaminan yang munasabah adalah satu tahap jaminan yang tinggi, tetapi bukan satu jaminan bahawa audit yang dijalankan mengikut *The International Standards of Supreme Audit Institutions* akan sentiasa mengesan salah nyata yang ketara apabila ia wujud. Salah nyata boleh wujud daripada fraud atau kesilapan dan dianggap ketara sama ada secara individu atau agregat

sekiranya boleh dijangkakan dengan munasabah untuk mempengaruhi keputusan ekonomi yang dibuat oleh pengguna berdasarkan penyata kewangan ini.

Sebagai sebahagian daripada pengauditan mengikut *The International Standards of Supreme Audit Institutions*, saya menggunakan pertimbangan profesional dan mengekalkan keraguan profesional sepanjang pengauditan. Saya juga:

- a. Mengetahui pasti dan menilai risiko salah nyata ketara dalam penyata kewangan Majlis Kepelbagaian Biologi Sarawak, sama ada disebabkan fraud atau kesilapan, merangka dan melaksanakan prosedur audit yang responsif terhadap risiko berkenaan serta mendapatkan bukti audit yang mencukupi dan bersesuaian untuk memberikan asas kepada pendapat saya. Risiko untuk tidak mengesan salah nyata ketara akibat daripada fraud adalah lebih tinggi daripada kesilapan, kerana fraud mungkin melibatkan pakatan, pemalsuan, ketinggalan yang disengajakan, representasi yang salah, atau mengatasi kawalan dalaman.
- b. Memahami kawalan dalaman yang relevan untuk merangka prosedur audit yang bersesuaian tetapi bukan untuk menyatakan pendapat mengenai keberkesanan kawalan dalaman Majlis Kepelbagaian Biologi Sarawak.
- c. Menilai kesesuaian dasar perakaunan yang diguna pakai, kemunasabahan anggaran perakaunan dan pendedahan yang berkaitan oleh Ahli Majlis.
- d. Membuat kesimpulan terhadap kesesuaian penggunaan asas perakaunan untuk usaha berterusan oleh Ahli Majlis dan berdasarkan bukti audit yang diperolehi, sama ada wujudnya ketidakpastian ketara yang berkaitan dengan peristiwa atau keadaan yang mungkin menimbulkan keraguan yang signifikan terhadap keupayaan Majlis Kepelbagaian Biologi Sarawak sebagai satu usaha berterusan. Jika saya membuat kesimpulan bahawa ketidakpastian ketara wujud, saya perlu melaporkan dalam Laporan Juruaudit terhadap pendedahan yang berkaitan dalam penyata kewangan Majlis Kepelbagaian Biologi Sarawak atau, jika pendedahan tersebut tidak mencukupi, pendapat saya akan diubah. Kesimpulan saya dibuat berdasarkan bukti audit yang diperolehi sehingga tarikh Laporan Juruaudit.
- e. Menilai sama ada keseluruhan persembahan termasuk pendedahan penyata kewangan Majlis Kepelbagaian Biologi Sarawak memberi gambaran yang saksama.


Saya telah berkomunikasi dengan Ahli Majlis, antaranya mengenai skop dan tempoh pengauditan yang dirancang serta penemuan audit yang signifikan termasuk kelemahan kawalan dalaman yang dikenal pasti semasa pengauditan.

Laporan Mengenai Keperluan Perundangan dan Peraturan Lain

Berdasarkan keperluan *Statutory Bodies (Financial and Accounting Procedure) Ordinance*, 1995 dan *The Sarawak Biodiversity Centre Ordinance*, 1997, saya juga melaporkan bahawa pada pendapat saya, rekod perakaunan dan rekod lain yang dikehendaki Ordinan untuk disimpan oleh Majlis Kepelbagaian Biologi Sarawak telah disimpan dengan sempurna menurut peruntukan Ordinan.

Hal-hal Lain

Laporan ini dibuat untuk Ahli Majlis dan bukan untuk tujuan lain. Saya tidak bertanggungjawab terhadap pihak lain bagi kandungan laporan ini.



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

KUCHING

TARIKH : - 2 JUL 2018



SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER 2017

	Note	2017 RM	2016 RM
NON-CURRENT ASSETS			
Property, plant and equipment	4	<u>20,659,731</u>	<u>21,143,248</u>
CURRENT ASSETS			
Cash and cash at bank	5	8,516,798	2,593,710
Fixed deposits	5	22,523,573	27,118,342
Trade and other receivables	6	<u>489,966</u>	<u>560,025</u>
Total current assets		<u>31,530,337</u>	<u>30,272,077</u>
TOTAL ASSETS		<u>52,190,068</u>	<u>51,415,325</u>
EQUITY			
General reserve	7	<u>37,561,452</u>	<u>41,049,190</u>
CURRENT LIABILITIES			
Development funds	8	13,830,212	9,800,140
Other payables and accruals	9	788,871	534,031
Provision for taxation		<u>9,533</u>	<u>31,964</u>
Total current liabilities		<u>14,628,616</u>	<u>10,366,135</u>
TOTAL LIABILITIES		14,628,616	10,366,135
TOTAL EQUITY AND LIABILITIES		<u>52,190,068</u>	<u>51,415,325</u>

The accompanying notes on pages 54 to 68 form an integral part of the financial statements.

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
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**STATEMENT OF COMPREHENSIVE INCOME
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

	Note	2017 RM	2016 RM
Revenue	11	945,696	1,040,124
Government grant	12	6,689,609	13,467,044
		<u>7,635,305</u>	<u>14,507,168</u>
Staff cost	13	(6,924,068)	(6,338,839)
Depreciation of property, plant & equipment	4	(2,661,826)	(2,432,364)
Other operating expenses	14	(1,333,629)	(1,566,638)
(Deficit)/surplus before tax		<u>(3,284,218)</u>	4,169,327
Tax expense	10	(203,520)	(243,347)
(Deficit)/surplus for the year		<u>(3,487,738)</u>	<u>3,925,980</u>

The accompanying notes on pages 54 to 68 form an integral part of the financial statements.

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

**STATEMENT OF CHANGES IN EQUITY
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

	General Reserve RM
Balance as at 1 January 2016	37,123,210
Surplus for the financial year	3,925,980
Balance as at 31 December 2016	41,049,190
Deficit for the financial year	(3,487,738)
Balance as at 31 December 2017	37,561,452

The accompanying notes on pages 54 to 68 form an integral part of the financial statements.

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
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STATEMENT OF CASH FLOWS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017

	Note	2017 RM	2016 RM
CASH FLOW FROM OPERATING ACTIVITIES			
Surplus/(deficit) before tax		(3,284,218)	4,169,327
Adjustments for the items not involving the movements of cash and cash equivalents			
Development grant		(1,689,609)	(8,467,044)
Depreciation of property, plant & equipment	4	2,661,826	2,432,364
Interest income		(848,002)	(973,390)
Loss on disposal of property, plant and equipment		-	1,584
Operating deficit before working capital changes		(3,160,003)	(2,837,159)
(Increase) / decrease in other receivables		(70,059)	193,527
Increase / (decrease) in other payables		254,840	(2,008,276)
Cash used in operation		(2,975,222)	(4,651,908)
Income tax paid		(216,218)	(208,664)
Net cash used in operating activities		(3,191,440)	(4,860,572)
CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment		(488,701)	(262,818)
Development grant received		9,285,834	6,506,931
Development expenditure		(5,125,376)	(6,879,662)
Interest income		848,002	973,390
Net cash generated from investing activities		4,519,759	337,841
Net increase/(decrease) in cash and cash equivalents		1,328,319	(4,522,731)
Cash and cash equivalents at beginning of the year		29,712,052	34,234,783
Cash and cash equivalents at end of the year	5	31,040,371	29,712,052

The accompanying notes on pages 54 to 68 form an integral part of the financial statements.

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

1. GENERAL INFORMATION

The registered address and principal place of business for Sarawak Biodiversity Council (Council) is Lot 724 Block 3, Sentah-Segu Land District, KM 20 Jalan Borneo Heights, Semengoh, Locked Bag No. 3032, 93990 Kuching, Sarawak.

The Council a body incorporated in accordance with the Sarawak Biodiversity Centre Ordinance, 1997 (Chapter 24, Laws of Sarawak), is a Sarawak State Government – owned statutory body and its vision is “Enriching lives with breakthrough innovations in Biodiversity”.

Since then, two amendments; i.e. Sarawak Biodiversity Centre (Amendment) Ordinance 2003 [Chapter A106, Laws of Sarawak] and the Sarawak Biodiversity Centre (Amendment) Ordinance 2014 [Chapter A163, Laws of Sarawak] came into force on 1 April 2004 and 1 June 2015 respectively. SBC is now entrusted with the following statutory functions:

- conduct bioprospecting/R&D Programme on the biodiversity of the State and maintain a library of extracts for R&D;
- implement the Traditional Knowledge Documentation Programme among the traditional communities in the State;
- provides facilities for research and development;
- establish linkages and partnerships to undertake research and development;
- to promote education and knowledge of biodiversity of the State;
- establish and maintain a database on information related to the biological resources of the State;
- implement Prior Informed Consent (PIC) to ensure benefit sharing with the ethnic communities of Sarawak when traditional knowledge associated with a biological resource is accessed and benefits are shared through mutually agreed terms.

The functional currency of the Council is Ringgit Malaysia (“RM”).

2. SIGNIFICANT ACCOUNTING POLICIES

The Financial Statements of the Council have been prepared in accordance with the Malaysian Private Entities Reporting Standard (“MPERS”), Statutory Bodies (Financial and Accounting Procedure) Ordinance 1995 and Treasury Instructions.

(a) Basis of preparation

The financial statements are prepared on the historical cost basis convention.

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
Chapter 24, Laws of Sarawak)

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

2. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(b) Property, plant and equipment

The cost of an item of property, plant and equipment is recognised as an asset when it is probable that future economic benefits associated with the item will flow to the Council and the cost of the item can be measured reliably. After recognition as an asset, all items of property, plant and equipment are measured at cost less any accumulated depreciation and any accumulated impairment losses. Depreciation is provided on a straight-line method so as to write off the depreciable amount of the following assets over their estimated useful lives. The rates of depreciation are as follows: -

• Buildings	5% p.a.
• Office equipment	15% p.a.
• Furniture, fixture 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 specialised equipment	15% p.a.
• Lab furniture & fittings	10% p.a.
• Motor vehicles	20% p.a.
• Nursery sheds	10% p.a.

Depreciation of an asset begins when it is ready for its intended use. Fully depreciated assets are retained in the financial statements until they are no longer in use.

The gain or loss arising from the disposal or retirement of an item of property, plant and equipment is determined as the differences between the sale proceeds and the carrying amount of the asset and is recognized in Income Statements.

(c) Operating grant

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

Grants that compensate the Council for operating expenses incurred are recognised as income over the periods necessary to match the grant on a systematic basis to the costs that it is intended to compensate.

SARAWAK BIODIVERSITY COUNCIL
(Incorporated under The Sarawak Biodiversity Centre Ordinance 1997
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

2. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(d) Development grant

The Council 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 Council, 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.

Government grants that do not impose specified future performance conditions are measured at the fair value of the assets received or receivable and recognised in income when the grant proceeds are receivable.

Government grants that impose specified future performance conditions are recognised at their fair value in income only when the performance conditions are met.

Government grants received before the revenue recognition criteria are satisfied are recognised as a liability.

(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 recognised 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.

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

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

2. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(f) Employee benefits

(i) Short-term benefits

Wages, salaries, bonuses and social security contributions are recognised as expenses in the year in which employees of the Council 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.

(ii) Defined contribution plan

The Council's contribution to defined contribution plans are charged to the income statement in the period in which they relate. Once the contributions have been paid, the Council has no further payment obligations.

As required by law, the Council makes contributions to the Employee Provident Fund (EPF). Such contributions are recognised as an expense in the Income Statement as incurred.

(g) Financial assets and liabilities

Financial assets and liabilities are recognised in the Statements of Financial Position when the Council has become a party to the contractual provisions of the instrument. The particular recognition methods are dissolved below:-

(i) Other receivables

Other receivables are carried at anticipated realisable 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 statements of financial position date.

(ii) Other payables

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

SARAWAK BIODIVERSITY COUNCIL
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

2. SIGNIFICANT ACCOUNTING POLICIES (CONT'D)

(h) Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable, net of any trade discounts and indirect taxes applicable to the revenue. Revenue is recognised in profit or loss when it is probable that the economic benefits associated with transaction will flow to the Council and the amount of the revenue can be measured reliably.

- (i) Interest revenue is recognised using the effective interest method.
- (ii) Other income is recognised at the point of receipt or sales by the Council.

(i) Research and development

Research and development expenditure comprised deferred direct project costs and related overheads incurred for projects ranging from 2 to 30 years. These research and development expenditures are recognised as expenses when the research and development are completed.

(j) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash and bank balances, short-term bank deposits and other short-term, highly liquid investments which are readily convertible to cash and which are subjected to an insignificant risk of changes in value.

(k) Provisions

Provisions are recognized when there is a present obligation, legal or constructive, as a result of a past event, when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provisions are reviewed at each statements of financial position date and adjusted to reflect the current best estimate.

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

3. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

(a) Critical judgements in applying the accounting policies

The judgements, apart from those involving estimations described below, that the management has made in the process of applying the accounting policies and that have the most significant effect on the amounts recognised in the financial statements are as follows:

(i) Fair value of financial assets and liabilities

The fair value for certain other financial assets and financial liabilities are obtained from the quoted price in an active market, if quoted prices are unavailable, the price of a recent transaction for an identical financial assets or liabilities provides evidence of fair value as long as there has not been a significant change in economic circumstances or a significant lapse of the time since the transaction took place.

(b) Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, other are as follows:

(i) Change of estimated useful lives for property, plant and equipment

The Council reviews the estimated useful lives of property, plant and equipment annually.

(ii) Impairment loss of property, plant and equipment

The Council's property, plant and equipment comprise a significant portion of the Council's total assets.

Changes in technology or industry conditions may cause the estimated period of use or the value of these assets to change. Long-lived assets including property, plant and equipment are reviewed for impairment at least annually or whenever events or changes in circumstances have indicated that their carrying amounts may not be recoverable. If any such indication exists, the recoverable amount is estimated.

SARAWAK BIODIVERSITY COUNCIL
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

**3. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION
UNCERTAINTY (CONT'D)**

The recoverable amount of an asset is the greater of its fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pretax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset, which requires significant judgement relating to level of revenue and amount of operating costs. The Council uses all readily available information in determining an amount that is a reasonable approximation of the value in use, including estimates based on reasonable and supportable assumptions and projections of revenue and operating costs. Changes in these estimates could have a significant impact on the carrying value of the assets and could result in additional impairment charge or reversal of impairment in future periods.

SARAWAK BIODIVERSITY COUNCIL
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

4. Property, plant and equipment

2017	Buildings RM	Office equipment RM	Furniture, fixtures and fittings RM	Computers and accessories RM	Office renovations RM	Motor vehicles RM	Specialised equipment RM	Temporary office RM	Nursery sheds RM	Lab specialised equipment RM	Lab furniture and fittings RM	Total RM
Cost												
At 1 January 2017	16,087,637	865,143	1,043,436	2,148,483	584,209	914,153	109,780	372,473	94,068	15,264,354	644,400	38,128,136
Additions	190,522	192,660	4,300	40,424	-	80,000	-	-	-	1,666,633	3,770	2,178,309
At 31 December 2017	16,278,159	1,057,803	1,047,736	2,188,907	584,209	994,153	109,780	372,473	94,068	16,930,987	648,170	40,306,445
Accumulated Depreciation												
At 1 January 2017	3,818,097	565,757	368,857	980,032	469,002	608,310	109,743	372,472	62,148	9,009,251	621,219	16,984,888
Additions	813,908	75,540	88,503	221,644	45,316	99,265	-	-	8,407	1,305,793	3,450	2,661,826
At 31 December 2017	4,632,005	641,297	457,360	1,201,676	514,318	707,575	109,743	372,472	70,555	10,315,044	624,669	19,646,714
Carrying amounts	11,646,154	416,506	590,376	987,231	69,891	286,578	37	1	23,513	6,615,943	23,501	20,659,731

SARAWAK BIODIVERSITY COUNCIL
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

4. Property, plant and equipment (cont'd)

2016	Buildings RM	Office equipment RM	Furniture, fixtures and fittings RM	Computers and accessories RM	Office renovations RM	Motor vehicles RM	Specialised equipment RM	Temporary office RM	Nursery sheds RM	Lab specialised equipment RM	Lab furniture and fittings RM	Total RM
Cost												
At 1 January 2016	8,395,989	707,422	444,946	866,522	542,009	859,980	110,830	378,473	94,068	12,309,457	647,730	25,357,426
Additions	7,711,978	162,421	598,490	1,281,961	44,300	173,193	-	-	-	2,969,496	-	12,941,839
Disposals	(20,330)	(4,700)	-	-	(2,100)	(119,020)	(1,050)	(6,000)	-	(14,599)	(3,330)	(171,129)
At 31 December 2016	16,087,637	865,143	1,043,436	2,148,483	584,209	914,153	109,780	372,473	94,068	15,264,354	644,400	38,128,136
Accumulated Depreciation												
At 1 January 2016	3,032,808	516,707	290,729	760,416	417,590	629,647	110,792	378,472	53,741	7,911,984	619,184	14,722,070
Additions	804,464	53,748	78,128	219,616	53,092	97,682	-	-	8,407	1,111,862	5,365	2,432,364
Disposals	(19,175)	(4,698)	-	-	(1,680)	(119,019)	(1,049)	(6,000)	-	(14,595)	(3,330)	(169,546)
At 31 December 2016	3,818,097	565,757	368,857	980,032	469,002	608,310	109,743	372,472	62,148	9,009,251	621,219	16,984,888
Carrying amounts	12,269,540	299,386	674,579	1,168,451	115,207	305,843	37	1	31,920	6,255,103	23,181	21,143,248

SARAWAK BIODIVERSITY COUNCIL
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

5. Cash and cash equivalents

	2017	2016
	RM	RM
Cash and bank balances	8,516,798	2,593,710
Fixed deposits	22,523,573	27,118,342
	<u>31,040,371</u>	<u>29,712,052</u>

6. Trade and other receivables

	2017	2016
	RM	RM
Trade receivables	1,070	1,200
Other receivables	14,364	10,210
Interest receivables	474,532	548,615
	<u>489,966</u>	<u>560,025</u>

7. General reserve

	2017	2016
	RM	RM
Balance as at 1 January	41,049,190	37,123,210
Net deficit for the year	(3,487,738)	3,925,980
Balance as at 31 December	<u>37,561,452</u>	<u>41,049,190</u>

8. Development funds

	2017	2016
	RM	RM
Balance as at 1 January	9,800,140	14,649,518
Received during the year	9,285,834	6,506,931
Expended during the year	(5,255,762)	(11,356,309)
Balance as at 31 December	<u>13,830,212</u>	<u>9,800,140</u>

Development funds comprise of grants received from the Sarawak Government and collaborators for the purpose of development.

SARAWAK BIODIVERSITY COUNCIL
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9. Other payables and accruals

	2017	2016
	RM	RM
Other payables	532,278	342,385
Accruals	256,593	191,646
	788,871	534,031

10. 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 Council 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
 - i. 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
 - ii. 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.

SARAWAK BIODIVERSITY COUNCIL
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**NOTES TO THE FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2017**

10. Provision for taxation/Tax expense

	2017	2016
	RM	RM
Balance at 1 January	31,964	(2,719)
Current year provision	203,520	243,347
Tax paid	(216,218)	(208,664)
Prior year adjustment	(9,733)	-
Balance at 31 December	<u>9,533</u>	<u>31,964</u>

Taxation

	2017	2016
	RM	RM
Current year tax expense	203,520	243,347
Tax paid for current year	<u>(191,268)</u>	<u>(208,664)</u>
Tax (refundable) / payable	<u>12,252</u>	<u>34,683</u>

11. Revenue

	2017	2016
	RM	RM
Fixed deposit interest income	848,002	973,390
Tender document fees	5,850	9,500
Gain on disposal of PPE	-	12,246
Sales of products	56,016	5,170
Other income	<u>35,828</u>	<u>39,818</u>
	<u>945,696</u>	<u>1,040,124</u>

12. Government grants

	2017	2016
	RM	RM
Operating grant	5,000,000	5,000,000
Development grant	<u>1,689,609</u>	<u>8,467,044</u>
	<u>6,689,609</u>	<u>13,467,044</u>

The operating grant received from State Government are mainly for operating expenditures. The development grant is recognised for the cost of property, plant and equipment capitalized for the year.

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**NOTES TO THE FINANCIAL STATEMENTS
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13. Staff cost

	2017	2016
	RM	RM
Personnel emolument	5,589,901	5,157,441
Staff incentives	133,014	130,101
EPF	700,760	642,846
SOCSSO	69,978	65,648
Overtime	75,013	67,855
Transport and travelling	177,348	145,718
Medical expenses	131,393	99,301
Staff uniform	46,661	29,929
	<u>6,924,068</u>	<u>6,338,839</u>
Number of staff	<u>97</u>	<u>104</u>

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14. Other operating expenses

	2017	2016
	RM	RM
Advertisement	6,764	7,536
Audit fees	7,606	5,108
Bank charges	2,008	2,018
Computer and accessories	121,936	76,377
Consultancy fees	45,545	28,532
Conference and seminar fees	-	5,610
Council Members' allowance and sitting fees	85,400	79,700
Electricity charges	256,628	279,916
Entertainment	41,796	46,866
Fuel and lubricant	14,260	16,254
Human resource development expenses	49,583	29,153
Lab consumables	112,915	91,877
Lab maintenance	74,018	166,649
Insurance	54,807	47,674
Market testing & research	-	123,316
Motor vehicles road tax	1,871	1,488
Newspapers and magazines	9,079	6,945
Office expenses	147,000	145,279
Office maintenance	202,704	282,440
Postage and courier	10,840	17,412
Printing and stationery	18,225	31,904
Repairs and maintenance - motor vehicles	22,799	15,121
Telecommunication and internet charges	42,376	52,291
Unclaimable good and services tax (GST)	-	449
Water charges	5,469	6,723
	<u>1,333,629</u>	<u>1,566,638</u>

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15. Capital commitments

Approved capital expenditure and contracted for in the financial statement as at 31 December 2017 is RM1.04 million (Year 2016: RM2.84 million).

16. Authorisation for issue of the financial statements

The financial statements of the Sarawak Biodiversity Council (Council) were authorized for issue by the Council Members via Circular Resolution No. 05/2018 dated 10 April 2018.

17. Comparative figures

Certain comparative figures have been reclassified to conform with the current year's presentation.

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