# **CSSPO INTERNATIONAL CONFERENCE 2018**

Towards Inclusive & Sustainable Agriculture
Harmonizing Environmental, Social and Economic Dimensions: Is It Possible?
Kuching, Sarawak, 9-11 July, 2018

## **Editors:**

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# **FOREWORD**



# CSSPO Coordinator Diana Chalil, Ph.D

This proceeding is a compilation of remarkable submitted paper to the 2018 CSSPO International Conference held in Kuching, Sarawak, 9-11 July 2018. The conference is conducted as an effort to contribute on the debatable academic discussion about inclusive and sustainable agriculture. In

particular, the subtheme raises the topic on "Harmonizing the environmental, social and economic dimensions: Is it possible?". There are at least two different concepts based on the inclusive understanding. First comes from the Value Added Chain concept, which focuses on the increase in income and other economic aspects. Second stems from the empowering concept that is related to proportional access and participation. All keynote speakers focus in international and domestic market palm oil cases, which discusses (1) "Harmonizing Economic, Social, and Environment Sustainability: It's a Must, It's Possible, and It's Feasible" (Dr. Bayu Krisnamurthi, andgreen.fund Indonesia), (2) "Certifying Sustainable Palm Oil: The European Paradox" (Prof, Alain Rival, CIRAD, France), (3) "Economic and Social Dimensions of Import Demand of Edible Oil in Pakistan" (Prof. Muhammad Ashfaq, University of Agriculture Faisalabad Pakistan), and (4) "Agricultural Development and Environment: On Parallel Track or Collision Corse" (Prof. Mad. Nasir Shamsudin, UPM Malaysia). Abstracts of the keynote speakers' presentations are provided, while the full power point presentations can be accessed through www.csspo.or.id. Submitted papers are not limited to palm oil commodity, covering comprehensive aspects from environmental science, sustainable development, economics, energy, agronomy, political science, political science and social science. All of the findings are expected to contribute discussions on the inclusive and sustainable agriculture, both in theoretical an empirical aspects.



# Vice Rector of Universitas Sumatera Utara Prof. Dr. Ir. Bustami Syam, MSME

As the Representative of CSSPO Honorary Board, we would like to congratulate The Consortium Studies of Smallholder Palm Oil for conducting a conference on Inclusive and Sustainable Agriculture. A number of sustainability issues along the global supply chain, especially in the palm oil industry are broadly debated around the world. Bringing four exceptional keynote speakers from Indonesia, Malaysia, France and Pakistan, provides a good forum for sharing of information, knowledge, and ideas in

enriching solutions for achieving an inclusive and sustainable palm oil industry.

The presentations of almost 100 participants' empirical researches in this conference will provide excellent complementary showcases and an excellent chance for positive networking. As a Vice Rector for Information, Planning and Development, Universitas Sumatera Utara, we believe that collaborations will play strategic role in the university development. Besides consortium studies, we are also committed in developing joint research, visiting Professors/Lecturers programs, and Student and Lecturer Exchange Programs with both local and international universities.

We believe that the outcomes of this conference will be a valuable reference for researchers and policy makers for implementing further excellent collaborative programs in the future.



# Acting Consul General of The Republic Indonesia in Kuching Muhammad Abdullah

It is a great honour for me to address the first international conference on Inclusive and Sustainable Agriculture which is held in Kuching, Sarawak, Malaysia. In many countries, oil palm cultivation has been proven playing an important role in achieving sustainable development targets Agenda 2030. Especially in Indonesia, oil palm cultivation contributes to the livelihoods of more than 17 million Indonesians, which are mostly smallholders.

The real positive impacts of oil palm cultivation such as; the level of education of the population increased, and the improvement of rural infrastructure that led to the rise of human development index (HDI). It also disclosed the pro-poor, pro-growth and pro-environment policies of the Indonesian oil industry in the framework of Indonesia Sustainable Palm Oil (ISPO).

This conference brings four exceptional keynote speakers from France, Pakistan, Malaysia and Indonesia, hence I believe this conference will provides a good forum for sharing information, knowledge and ideas in enriching solutions for achieving an inclusive and sustainable palm oil industry. Moreover, with almost 100 participants, this conference will be a good platform to exchange and sharing empirical relevant studies and an excellent chance for positive networking.

In this opportunity, I wish to congratulate The Consortium Studies of Smallholder Palm Oil for conducting a conference on inclusive and sustainable agriculture. It is my fervent hope that the conclusion of this conference can be a valuable reference for researchers, policymakers and all parties concerned in the development and improvement of a sustainable agriculture.



# **ABOUT CSSPO**

Consortium Studies on Smallholder Palm Oil (CSSPO) is established in 2015 with DIKTI (Indonesian Higher Education) Fund No 5231/E2.4/LN/2015. This consortium is a collaboration of universities from main palm oil

producing countries namely Indonesia, Malaysia and Thailand, with MoU on 7 June 2013 between USU and UPM, MoU on 27 March 2015 between USU and PSU, and MoU No 7155/UN5.1.R/KPM/2015 among USU, UNJA and UNIMAL. Universitas Sumatera Utara, Universitas Jambi and Universitas Malikussaleh are universities from Indonesia, Universiti Putra Malaysia is from Malaysia and Prince of Songkla University is from Thailand. Initially, the consortium was named as Consortium Studies on Palm Oil (CSPO). All members have long research experience and interest in palm oil agribusiness studies, which identified significant issues related to smallholders in the studies. With their increasing share, oil palm smallholders appear to have significant role in the palm oil industry. However, lack of technical, managerial and financial capability, in general smallholders are likely have weak position in the global value chain. Therefore, the vision is to become a leading consortium of academic institutions to conduct research and provide solutions to improve smallholders' position in the global palm oil value chain. The vision is break-downed into 3 missions namely (1) To build a global palm oil research network, (2) To produce high quality empirical research output and (3) To provide solutions for oil palm smallholder issues. The missions are detailed in a number of programs, covering researches, trainings for smallholders and producing policy briefs. In 27-28 May 2016 CSSPO conducted a seminar "Mencari Model Pemberdayaan dan Peremajaan Perkebunan untuk Sawit Indonesia yang Berkelanjutan" in Polonia Hotel, Medan, which received very positive response from 40 institutions include Universities, state and private companies, government offices, and research center. In the meeting, Mr Derom Bangun, as the Head of Indonesian Palm Oil Board (DMSI) explained that CSPO is well known as Certified Sustainable Palm Oil. Dr Bayu Krisnamurthi as the Head of Indonesian Palm Oil Funding (BPDPKS) suggested to add "Smallholder" in the consortium name, and to change CSPO to CSSPO. Since 12 June 2016, The consortium's name become CSSPO. In 2016 CSSPO were included as one of providers for conducting trainings for smallholders in Labuhan Batu, Labuhanbatu Utara and Labuhanbatu Selatan, North Sumatra. Twelve (12) experts from universities, state and private companies, and successful smallholders were invited to share their knowledge and experience in replanting preparation. CSSPO is also actively involved in a number of government smallholder policy formulations such as the Fresh Fruit Bunches pricing for smallholders, and Forum Kelapa Sawit Berkelanjutan Indonesia (FOKSBI). CSSPO is also involved in socializing the progress of sustainable palm oil, including to Pakistan Agriculture University, Peshawar and National Agriculture Research Center and Pakistan Agriculture Research Council, Pakistan in 2016, and Tasmanian University students in 2016, 2017 and 2018. Currently, CSSPO is also discussing the potential study of harvesting labor with Golden Agri Resource (GAR-SMART) to academically evaluate labor issues that have been broadly debated, especially among European countries. In January 2017, all Vice Rectors and Director of each university agreed to formally sign the USU organizational structure under Letter of Agreement .The structure consists of Joint Management Board, which members are Drs. Mahyuddin K.M. Nasution, M.I.T (USU), Ph.D, Prof. Dr. Ir. Zulkifli Alamsyah, MSc (UNJA), Jullimursyida, Ph.D. (UNIMAL), Prof. Dr-Ing. Ir. Renuganth Varatharajoo (UPM), and Asst. Prof. Dr. Pattara Aiyarak (PSU), CSSPO Coordinator Diana Chalil, and CSSPO members of each

university namely Diana Chalil and Riantri Barus (USU), Zulkifli Alamsyah and Dompak MT Napitupulu (UNJA), Mawardati and M Authar (UNIMAL), Shaufique F Sidique and Yeong Sheng TEY (UPM), Sutonya F. Thongrak and Sirirat Kiatpathomchai (PSU). Each year the CSSPO conducts an annual meeting to evaluate previous programs and to prepare upcoming ones. In 2016, CSSPO piqued the interest of a CIRAD (Agricultural Research for Development, French) researcher, Dr Marcel Djama who joined the 1st annual meeting in Batam. This significantly improved CSSPO networking and studies, as CIRAD is a main and important research center in France and Europe. In 2017, Dr. Diana Chalil, Dr. Shaufique F. Sidique, and Dr. Marcel Djama were invited as Plenary Speaker in International Conference and Congress of The Indonesia Society of Agricultural Economics (ICC-ISAE) in Bali. In 2018, supporting by Sarawak Bureau Convention, CSSPO and CIRAD conducted a joint conference in Kuching, Sarawak with Dr. Bayu Krisnamurthi (andgreen.fund -Indonesia), Prof. Alain Rival (CIRAD - French), Pof. Muhammad Ashaq (University of Agriculture, Faisalabad - Pakistan) and Prof. Datuk Dr Mad Nasir Shamsudin (Universiti Putra Malaysia – Malaysia) as keynote speakers. All of the CSSPO activities are published through www.csspo.or.id

# **KEYNOTE SPEAKERS**



# Dr. Bayu Krisnamurthi Andgreen-fund, Indonesia

Dr. Bayu Krisnamurthi is a Senior Lecturer at Department of Agribusiness, Faculty of Economic and Management, Institut Pertanian Bogor and Executive Chair of Bina Swadaya, Community Self-Empowered Foundation. He is also a Board of Adviser Andgreen-Fund (Netherland) from 2017, Senior Expert Panel Indonesia Chamber of Commerce from 2018, Board of Adviser PT East Weast Seed Indonesia from 2015, Invesment Committee, Millennium Challange Account

(MCA) Indonesia from 2015, Founder, Chairman Board of Trustee Danamon Peduli Foundation from 2015, Founder, Initiator and Coordinator of Inclusive and Sustainable Agribusiness (ISA) Initiatives.

He was President Director / Chief Executive Indonesia Estate Crop Fund (IECF) for Palmoil, Ministry of Finance Republic of Indonesia (2015 – 2017), Vice Minister of Trade Republic of Indonesia (2011 – 2014), Vice Minister of Agriculture Republic of Indonesia (2009 – 2011), Deputy Minister for Agriculture and Marrine, Coordinating Minstry for Economic Affair Republic of Indonesia (2005 – 2009).

He has Republic of Indonesia Honorary Award "Bintang Mahaputra Utama", Republic of France Honorary Award "Orde du Merite Agricole", and Indonesia Presidential Honorary Award Tanda Penghargaan "Satra Lencana Karya Satya".

He Received his BSc in Agribusiness (1987), MSc Agricultural Economics (1991) and PhD on Agricultural Economucs (1998) from Institut Pertanian Bogor.

# Harmonizing economic, social, and environment sustainability: it's a must, it's possible, and it's feasible

#### Dr. Bayu Krisnamurthi

With Sustainable Development Goals becoming global platform since 2015 for (almost) all development agenda in more than 180 member countries of UN, "sustainability" embark to a new meaning and a new dimension. Sustainability becoming center point of economic, social, and environmental activities. Learning from the establishment of AndGreen-Fund (&GreenFund), the collaborative effort within Partnership on Indonesia Sustainable Agriculture (PISAgro), and the operationalization of Indonesia Estate Crop Fund (IECF) for Palmoil; the key factors for harmonizing the three pillar of sustainability (economic, social and environment) are 1) determinative vision and principal that sustainability is a must for all economic and business activities, 2) implementing technology, management, and operational system that make multi-objective (economic, social, and environmental) possible; and 3) incentives system through business and market work in such that harmonizing economic, social, and environment sustainability in profitable, in the short term and long term.

Keywords: harmonizing, sustainability, vision, business and market orientation



Prof. Alain Rival Cirad, French

Professor Alain RIVAL is the Resident Director for Southeast Asia Island Countries and the Focal Point for Oil Palm Research at Cirad, the French Centre for International Cooperation in Agricultural Research for Development.

Prof Alain Rival is an agronomist by training and a plant molecular physiologist; he received his PhD in Plant Biotechnology from the University of Montpellier, France in

1988 and he spent the first years of his career (1985-1995) running collaborative plant biotechnology programmers overseas in Ivory Coast, Indonesia, Malaysia and Costa Rica.

Alain Rival qualified for the Habilitation of Research Director in Life Sciences in 1997 from the University of Paris and he is a Qualified Professor in Biology and Physiology since 2002. Prof Rival spent two years as a Marie Curie International Fellow at CSIRO Plant Industry in Canberra, Australia, within the framework of a European Commission-funded project in plant epigenetics called EPIDEV (2004-2007). The project was aimed at understanding the molecular regulation of genes governing flower structure in higher plants.

Alain Rival is now based in Jakarta, Indonesia since September 2014 and he coordinates Cirad collaborative research and development programs and training partnership in the Region. Invited Professor at University Putra Malaysia, Kula Lumpur in 2015-16, Alain Rival is the author and co-author of more than 80 research articles and book chapters. Alain co-authored the book "La Palme des Controverses – *Palm of Controversies*" with Patrice Levang in 2013 (Quae Publisher, Versailles) and he was the scientific editor of the research book on "Achieving sustainable cultivation of oil palm" recently published by Burleigh Dodds Science.

# Certifying sustainable palm oil: the european paradox

#### Prof. Alain Rival

Since its origin, the RSPO certification system for the sustainable production of palm oil is rooted in Europe. Indeed, as a business to business initiative, the RSPO roundtable gathered at its early beginning several Europe-based NGOs and multinational firms like Unilever. At the same time, Europe is also a market for palm oil and - even more - the almost unique market for Certified Sustainable Palm Oil (CSPO). Indeed even if Europe is not a key player in the global palm oil market - which is led by India and China - it has a key role to play in the public acceptance of RSPO as a norm and in the updating of RSPO Principles and Criteria (P&C) in order to fit with changes in expectations from stakeholders and progress in science and knowledge. The European paradox in oil palm lies in the fact that Europe and its institutions must play a dual role:

- i) pushing the concept of sustainability throughout the palm oil commodity chains and its actors, and
- ii) dealing with European farmers who are producers in a very competitive vegetable oils global market.

Public opinions in Europe are more in favor of a "No palm oil" strategy - as reflected by the 2030 ban proposed by the European Parliament this year - rather than giving Europe a key role in the evolution of RSPO P&C towards more inclusivity and better alignment to national mandatory sustainability standards such as MSPO and ISPO.

The present paper explores the status and trends of CSPO market in Europe and the role and response of EU markets (importers, traders, processors and end consumers). It proposes future avenues for collaborative research and development aimed at linking Europe –through Research Institutions, NGOs and the transformation industry- with key stakeholders in producing countries, including oil palm smallholders.



# Prof. Muhammad Ashfaq University of Agriculture, Pakistan

Prof. Muhammad Ashfaq is a Professor at Institute of Agricultural and Resource Economics, University of Agriculture, Faisalabad. His primary areas of interest, ekspertise and experiance is Agricultural Policies, Impact Assassment of Interventions, and Irrigated Agriculture.

He began his career as a lecturer from 1988 in Department of Agriculture Economic, University of Agriculture, Faisalabad. He served as Assitant Coordinator of

Departement of Business Management Science (Evening College), University of Agriculture, Faisalalabad (2000 - 2001), Agricultural Economist, International Water Management Institute (2001 - 2003), Director Institute of Agricultural and Resources Economics, University of Agriculture, Faisalabad (2012 - 2015), Director External Linkages, University of Agriculture, Faisalabad (2015 - 2016), Chairman, Agriculture Policy, USPCA-AFS (2016 - 2017), and Chairman Sports Board, University of Agriculture, Faisalabad from 2016 to the present.

He has Higher Eduction Commission of Pakistan (HEC) recognized supervisor for more than 100 M.Sc, M. Phil student and 8 Ph.D studies; International linkage award from HEC for Australia in 2004; Supervisor for ICDD, Kassel, University, Germany; Section Editor, Pakistan J. Of Agricultural Sciences; Member editorial Board, Journal of Soil and Environment (2013); TWAS Associateship award 2011; Pakistan Program for Collaborative Research (PPCR)" award to visit Reading University UK by HEC 2011; Australian Alumni Excellence Award 2013 for Innovation and Research – Pakistan; Resource Person in 'Decision Support System for Agro – Technology Transfer Training Program, held in Konya-Turkey, 2015, Organized by Bahri Dagdas International Research Institute and Ministry of Food, Agriculture and Livestock, Turkey.

# Economic and social dimensions of import demand of edible oil in Pakistan

#### Prof. Muhammad Ashfaq

Pakistan is the 6th most populous country of the world and agriculture is one of the dominant sectors. It contributes 18.9 percent to GDP, employs 42 of labor force and provide raw material to agro-based industries. Being a consumer based economy, to meet the growing demands for foods, Pakistan heavily depends on imports. Edible oil industry has grown with an impressive rate in Pakistan over the last three decades. Despite an increase in the domestic production, huge amount of foreign exchange is still spent on its import. Edible oil is the key ingredient of household food consumption. Pakistan has consistently been the third largest importer of edible oil. Domestic production of edible oil is unable to meet the needs of even half of the population. Hence to fulfil the requirement of 210 Million population, Pakistan imports 73 percent of its demand. Edible oil imports mainly composed of palm oil and soya bean oil. In terms of palm oil trade Indonesia and Malaysia are the biggest trading partners of Pakistan. Out of 73 percent of total edible oil imports, 92% of the imports composed of palm oil. This paper was aimed to determine the socio-economic dimensions of edible oil demand in Pakistan. Both primary as well as secondary data were used for arriving at on certain conclusions. This study employed Johansen Cointegration model (JCM) and Error Correction Model (ECM) approaches. The study concludes that in the short run, real GDP, domestic oilseeds production and exchange rate and in the long run, population has the main impact on palm oil import. The study suggested that for increasing the production of edible oil some policy measures should be taken to decrease the level of import bill by increasing local production, adoption of new processing technology, introducing the new varieties of oilseeds crops, stabilization of exchange rate, import substitution, population and inflation control.

Keywords: Edible oil, import demand, Pakistan



# Prof. Datuk DR Mad Nasir Shamsudin Universiti Putra Malaysia, Malaysia

Prof. Datuk DR Mad Nasir Shamsudin is a Professor in agricultural and resource economics. He received his Bachelor of Science from Louisiana State University, and PhD in Agricultural Economics and minor in statistics from Mississippi State University, USA. Prof Nasir has been teaching primarily in International Agricultural Trade, Development Economics and Policy, Environmental Economics, and Managerial Economics. His research areas

include International Agricultural Trade Policy, Commodity Market Analysis, and Agroenvironmental Economics. To date, he has authored and co-authored more than 250 publications in book, book chapters, journal articles, and conference proceedings, and presented more than 160 papers in both local and international seminars in his area of expertise.

In academic administration, he was appointed as Head of the Agricultural Economics Department (August 1996 – December 1998), Head of the Agribusiness and Information Systems Department (January 1999 – December 2003), Deputy Dean, School of Graduate Studies (March – August 2004), Dean, Faculty of Environmental Studies (September 2004 – August 2009), Dean, Faculty of Agriculture (September 2009 – August 2012), and Deputy Vice Chancellor (Academic & International) (December 2013 – November 2016).

# Agricultural development and environment: on parallel tracks or a collision course?

### Prof. Datuk DR Mad Nasir Shamsudin

Sustainable agricultural development continues to be emphasized to ensure that the well-being of the present generation is not met at the expense of future generations. Economic, social and environmental aspects are increasingly integrated into the development process. Thus environmental consideration is now integrated into the agricultural sector policy in order to ensure a sustainable economic and social development. The primary interest in sustainable agriculture is to develop farming systems that promote equally farming profits, agro-ecosystem, and local communities. Unsustainable practices, as it is argued, often focus solely on farm profits, at the expense of ecosystems, farming communities, and externalities.

Agricultural activities and environmental interests, however, sometimes collide, as governments, industries, environmentalists and consumers push their competing agendas. There is no doubt that agricultural development has direct impact on natural resources and the environment. However, the physical and economic links between agricultural development and the environment are complex. There is no conclusive evidence to show that agricultural development in itself, harms the environment. Rather, agricultural development often magnifies the environmental affects, particularly on natural resources.

The relevant questions from the above scenario are: (i) since both agricultural development and environmental quality are the basic elements for sustainable development, are they on parallel tracks or a collision course? (ii) what are the linkages between the environmental and agricultural policies?; and (iii) what approach is feasible to have a balance between agricultural development, hence economic growth, and environmental quality?

Environmental protection is a basic element of sustainable agricultural development. The environment supplies natural resources for agricultural production activities and is shaped by these activities. Agricultural practices, however, can cause negative externalities on soil, water, air quality and biodiversity.

Environmental effects can also occur or be exacerbated by agricultural policies, which raise or lower input and output prices above or below market levels, which might have resulted in the absence of such policies. Examples include the agricultural support programs, such as import tariffs and quotas. These policies influence production patterns, farming practices and input uses, mainly by changing the relative costs and returns of using resources in agriculture, or by imposing direct restrictions on output and input uses. Although the objective of the policy is to optimize the returns from farm incomes and to ensure a stable food supply at reasonable prices, the policy unintentionally affected the environmental quality.

Environmental policies, on the other hand, influence the compositions of agricultural production. As the cost structure of a regulated industry or activity rises relative to that of other less-regulated industries or activities, productive resources will shift toward the less-regulated sectors. Resources may be encouraged to move out of agriculture, should environmental controls in agriculture become more restrictive than in other industries. These output composition effects also influence the relative mix of agricultural output and trade. For example, production and export of less fertilizer-intensive crops might be encouraged should a fertilizer tax be implemented. The composition effect may also influence the relationship between primary production and processing of agricultural products. Often,

policies in the form of regulations (such as standards, bans, and restrictions on input uses) and incentive-based mechanisms (such as taxes, subsidies, and marketable permits) are implemented as corrective measures. While these policies may meet their environmental goals, they may also affect production, trade, investment, technological change, and consumption. Such effects may be particularly important to agricultural producers and food processors.

The preceding discussions highlight conflicts between the two sets of policy, agricultural development and the environment. So, if they are conflicting, could we have sustainable agricultural development? A major conflict arises for the diametrically opposed signals that agricultural and environmental policies send to farmers. Although environmental regulations often raise production costs and reduce competitiveness in the short term, it is found that the long term effects are less certain since agricultural producers have to adjust and innovate. Studies indicate that the regulations altered input values and imposed costs on producers, thereby inducing a change in input use and the subsequent choice of alternative technologies. Thus, changes in relative factor prices stimulate innovative activities. Research institutions will innovate to remedy the constraint imposed by the policy-induced factor scarcity. Hence environmental regulation can act as a signalling mechanism that stimulates research into environment-conserving technologies. In the irrigation and groundwater example, the regulations limiting water use increased its scarcity value and stimulated research into more efficient "drip-irrigation" technologies. Environment-saving technological change allows more goods to be produced with less damage to the environment.

Although there seems to be conflicts between agricultural development and the environmental protection, there is a convergence between the two. Higher investment in agricultural research to generate a range of adaptable technologies, particularly for small farmers, is thus a compelling public policy priority, along with the development of supporting institutions. Market solutions could be a means of giving proper signals to farmers in making choices about sustainable resource management. Border prices could be used to remove biases against sustainable farming practices. Decentralisation and community participation in resource conservation would be crucial in encouraging and fostering sustainable agriculture. This also calls for industrial ecology approach that integrates the agricultural sector development with environmental ecology. The key is to modify behaviour so that agricultural growth and environmental protection can become reinforcing rather than competing goals. Although the needed changes will take time to orchestrate, several initiatives being developed in nations around the world are moving public and private efforts in this direction.

# ORGANIZING COMMITTEES

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# **PROGRAMS**

Date	Time	Activities	Venue
09 July 2018	06.00 pm - 11.00 pm	Welcoming dinner	Imperial Hotel
10 July 2018	08.00 am - 08.30 am	Registration	Imperial Hotel
	08.30 am - 09.00 am	Opening Ceremony	
		Diana Chalil, PhD	
		(CSSPO Coordinator)	
		Prof. Dr. Ir. Bustami Syam,	
		MSME (Honorary Board – Vice Rector for	
		Information, Planning and	
		Development USU)	
		Muhammad Abdullah	
		(Acting Konjen RI di	
		Kuching)	
	09.00 am - 09.10 am	Welcoming Traditional	
		Dance	
		Panel Session	
	09.10 am - 09.35 am	Dr. Bayu Krisnamurthi	
	09.35 am - 10.00 am	(andgreen.fund, Indonesia) Prof. Alain Rival	
		(CIRAD, France)	
	10.00 am - 10.25 am	Prof. Dr. Muhammad	
		Ashfaq	
		(University of Agriculture,	
		Faisalabad - Pakistan)	
	10.25 am - 10.50 am	Prof. Datuk Dr. Mad Nasir	
		Shamsudin (Universiti Putra Malaysia,	
		Malaysia)	
	10.50 am - 12.00 pm	Discussion	
	12.00 pm - 12.15 pm	Souvenirs awarding for	
		keynote speakers	
		Photo session	
	12.15 pm - 01.00 pm	Lunch Break	
	01.00 pm - 06.00 pm	Parallel Session	Imperial Hotel
11 July 2018	08.00 am - 04.00 pm	Field Trip to Bako	Bako National Park
		National Park	
		Closing Ceremony	
		Depart to Hotel	