The 2nd International Conference on Sustainable Plantation (ICSP): Improving Added Value of Plantation Crops through Sustainable Plantation

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A. SUMMARY OF CONFERENCE

1. Introduction

1.1. Background

The Covid-19 pandemic has caused shocks not only in the health aspect but also in all aspects of the global community’s life. It has significant effect in all sectors of the economy, including the agricultural sector. However, the agricultural sector, including the plantation sub-sector, is a sector that has been able to survive and even shows positive growth. On the other hand, the agricultural commodities from the plantation sector have been significant in job opportunities and export earnings. Major plantation crops such as oil palm, coconut, sago palm, rubber, coffee, cacao, tea, pepper, clove, medicinal plants, and sugarcane may continue their significant contribution to the economy of many tropical countries. These countries will still dominate as the world’s leading producers of those plantations, at least soon. Plantation and agricultural sectors are labor-intensive. As these sectors are steadily expanding, a reliable workforce requirement has become one of the major issues resulting in huge dependency on capacity development to fulfill the rising need.

The 2nd International Conference on Sustainable Plantation (ICSP) was virtually-held in collaboration between the Faculty of Agriculture, IPB University with Indonesian Center for Estate Crops Research and Development (ICECRD), The Indonesian Agency for Agricultural Research and Development (IAARD), with involving the Indonesian Palmae Crops Research Institute (IPCRI), Indonesian Industrial and Beverage Crops Research Institute (IIBCRI), Indonesian Spice and Medicinal Crops Research Institute (ISMCRI), and Indonesian Sweetener and Fiber Crops Research Institute (ISFRCRI).
The 2nd International Conference on Sustainable Plantation (The 2nd ICSP) was conducted to propose:

1. Scientific forum to discuss the latest technological developments in plantation commodities.
2. Advocacy efforts to increase the added value of superior commodities and strategic plantation commodities of Indonesia.
3. Encouraging and facilitating networking for Indonesian academics and researchers in the international arena.
4. Mediating the publication of the research by IPB and ICECRD academics and researchers in a reputable indexed-Scopus database.

1.3. Conference Activities

The conference was held on Thursday to Friday, September 2nd – 3rd, 2021 in a virtual conference room using the Zoom application. The conference consisted of presentation by keynote speakers and invited speakers followed by parallel session of papers presentation and student competition (Table 1).
Table 1: Program schedule of The 2nd International Conference on Sustainable Plantation

| Day 1 – September 2nd, 2021 |
|-----------------------------|
| **Time (GMT+7)** | **Activity** |
| 08.30-09.00 | Participants enter the meeting room |
| 09.00-10.00 | Opening Ceremony |
| | Program Report |
| | **Dr. Syafaruddin** (Director of Indonesian Center for Estate Crops Research and Development) |
| | Welcoming Speech |
| | **Prof. Dr. Arif Satria** (Rector of IPB University) |
| | Opening Speech |
| | **Dr. Fadjry Djufry** (Director General of Indonesian Agency for Agricultural Research and Development, Ministry of Agriculture, Indonesia) |
| | Keynote Speech |
| | **Dr. Syahrul Yasin Limpo** (Minister of Agriculture, Indonesia) |
| 10.00-10.20 | Agriaswara IPB Student Choir |
| 10.20-12.00 | Plenary Session 1 |
| | Chairman: Dr. Trikoesoemaningtyas (IPB University) |
| 1. | **Dr. Syafaruddin**  
Indonesian Center for Estate Crops Research and Development, Indonesia  
“The Role of Technological Innovation in Sustainable Plantation Development” |
| 2. | **Dr. Sugiyanta**  
IPB University, Indonesia  
“The Role of University in Sustainable Plantation Development” |
| 3. | **Prof. Dr. Yutaka Nakashimada**  
Hiroshima University, Japan  
“Valorization of Agricultural Waste for Bioenergy” |
| 4. | **Dr. Zulkifli Bin Yaakub**  
Malaysian Palm Oil Board, Malaysia  
“Molecular Breeding of Plantation Crops” |
| 13.00-14.40 | Plenary Session 1 |
| | Chairman: Dr. Nurliani Bermawie (Indonesian Spice and Medicinal Crops Research Institute) |
| 1. | **Prof. Dr. Inocensio E Buot, Jr.**  
University of The Philippines, Los Baños, Philippines  
“Uncompromising Observance of Ecological Concepts and Principles in Maintaining Sustainable Plantations” |
| 2. | **Dr. Suwardi**  
International Society for Southeast Asia Agricultural Scientist – Indonesia Chapter, Indonesia  
“Land Improvement with Soil Amendments of Zeolite and Humic Substances to Increase the Production of Plantations” |
3. **Prof. Dr. Tae-Jin Yang**  
Seoul National University, South Korea  
“Genomic and Breeding for Medicinal Plants”

4. **Dr. Sastia Prama Putri**  
Osaka University, Japan  
“Triple Helix Collaborative Efforts to Increase Export of Coffee Commodities: A Metabolomic Approach”

14.45 – 16.00  
Parallel Session 1: 8 room, 5 presenter/room  
Student Competition Session 1: 2 room, 5 presenter/room

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### Day 2 – September 3rd, 2021

| Time (GMT+7) | Activity |
|--------------|----------|
| 07.30-08.00  | Participants enter the meeting room |
| 08.00-08.10  | Soft Opening Speech by Chairman of The 2nd ICSP  
**Dr. Tedy Dirhamsyah** (Indonesian Center for Estate Crops Research and Development) |
| 08.10-09.50  | Plenary Session 3  
Chairman: Prof. Dr. Sri Hendrastuti Hidayat (IPB University)  
1. **Dr. Patricio Grassini**  
University of Nebraska, United States  
“Oil Palm Sustainability on Agronomy Aspects”  
2. **Dr. Jelfina C. Alouw**  
International Coconut Community  
“Agroindustry, Biodiversity, and Climate Change”  
3. **Dr. Shamsul Bhuiyan**  
Sugar Research Australia  
“Increasing Competitiveness of Sugarcane by Developing Pest and Disease Resistant Superior Resistance”  
4. **Prof. Dr. Andre Drenth**  
University of Queensland, Australia  
“Disease Management of Cocoa” |
| 10.00-11.15  | Parallel Session 2: 8 rooms, 5 presenter/room  
Student Competition Session 2: 2 rooms, 5 presenters/room |
| 13.30-15.30  | Parallel Session 3: 9 rooms, 8 presenter/room  
Student Competition Session 2: 1 room, 8 presenters/room |
| 15.30-16.00  | Closing Ceremony |

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### 2. Contribution to Colleagues

Problems and challenges in the plantation sector are increasingly complex due to climate change, changes in land use, new pests and diseases, and even policies. We hope that this exchange of insights and information will trigger collaborative studies between universities and research agencies to create innovations in increasing the production and sustainability of plantations globally.
3. Participants and Opportunities in Virtually-Held Conference

Covid-19 applied travel restrictions in Indonesia and other countries. Especially in Indonesia, the second wave of coronavirus disease (Delta variant) was occurred in July 2021 and showed no significant decrease towards the conference date. The committee decided to keep the conference be held virtually. However, organizers could have a chance to work from the office of ICECRD to make sure all the details, especially which needed in-person anticipation before and during the conference, were prepared optimally with strict health protocols. Meanwhile, all the participants followed this conference virtually from their place.

This online conference was held in a virtual seminar room using Zoom application. We have around 460 people participating in this conference. Our non-presenter participants come from various institutions namely from academics and business institution, government agencies, and the community organizations. We received 233 abstracts divided into particular scopes (Figure 1). The 146 selected abstracts and papers from Indonesia, Malaysia, and Pakistan were presented within the conference (Figure 2). The updated topics delivered have enriched the knowledge and connection of our audiences to current research in estate crops.

![Figure 1] Scopes of the submitted abstracts in the pre-conference submission
As displayed in Table 1, we have 3 main agendas: plenary session, parallel session, and student competition. In the plenary session, there was an equal time distribution between talks and Q&A sessions. Each speaker has around 15 minutes to talk and around 40 minutes after the talks, there was a discussion led by the chairman (moderator). To have an efficient Q&A session, most of the participants asked the question in the chat box or asked directly to the speakers. The parallel session was conducted using 1 Zoom room and 9 breakout rooms. Each breakout room has a moderator from ICECRD or/and IPB University. One administrator acted as the host who could monitor all the running sessions. The Q&A session was in the last 40 minutes. The participants were permitted to move to the desired breakout room in the same session. The student competition session was undertaken using the same model. A total of 28 undergraduate and post-graduate students from 17 universities presented their posters on the sustainable plantation development.

As our self-evaluation, most of the conference details have been executed well. Nevertheless, there were some difficulties found especially regarding the virtually-held conference. The different time zone became the most important issue for the organizer to be solved by adjusting the plenary session with the speaker's country of origin. Other technical difficulties learned from previous conferences were about the internet connection of presenters during the seminar. So, we anticipated this by requesting a pre-recorded presentation video to be displayed in the seminar. This was performed efficiently and the presenter could be focused on the Q&A session. Generally, virtually-
held conferences need several modifications to keep it standardized especially about the quality of insight transferred. Although the participants could not join the in-person discussion, the online conference could reach participants from much broader backgrounds who were usually limited by time and transportation barriers.

4. Paper Publication

As many as 233 abstracts were submitted in the conference and selected to present during the conference. Selected papers (around 60%) were to be published in Scopus-indexed international proceeding *IOP Conference Series: Earth and Environmental Science*. Several criteria used for the paper selection were relevance to the conference topic, adherence to writing format, be presented orally within the conference, and willingness to follow suggestion for improvement from reviewers. Each paper was reviewed and edited in 5 round (1 round pre-conference, 4 round post-conference). Similarity and writing structures checking were performed by Turnitin and Grammarly.

The peer-reviewing stage was conducted in Morressier, a platform provided by IOP, involving 38 expert reviewers in September – November 2021. This virtual working space helped organizer to managed papers with simple but comprehensive operational and monitoring system. We also have 10 guest editors from various institutions in Indonesia, Malaysia, Japan, and Croatia.

5. Funding Acknowledgements

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6. Special Acknowledgements

Our deepest gratitude and condolences are addressed to our team member, Mr. Hilmiza Radifa Putera who has passed away on November 17th, 2021. He is remembered as a very helpful, articulate, polite, honest, and humble person. May his soul rest in peace.
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