



PLANT BIOSECURITY
science foundation

Research Impact Report/Final Report

Indonesia: Bilateral Workshop on Biosecurity

3-4 September 2018

AUTHOR

John Lovett



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Project Leader contact details

Name: John Lovett
Address: PO Box 400, HALL, Act 2618
P: 02 6227 5050
M: 0428 275 050
E: lovettassociates@bigpond.com

APBSF contact details (below)

Australian Plant Biosecurity Science Foundation
LPO Box 5012
Bruce ACT 2617

P: +61 (0)2 6201 2882
F: +61 (0)2 6201 5067
E: info@apbsf.org.au
www.apbsf.org.au

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1. Executive Summary

The Workshop provided a unique opportunity for Indonesian and Australian interests in biosecurity to meet and discuss possible ways forward for bilateral activity. Held in Bogor with strong support by Indonesian Institute of Sciences (LIPI), this activity built on work carried out by the Bilateral Plant Biosecurity Initiative (BPBI) and Indonesian Biosecurity Foundation (IBF) supported by the Plant Biosecurity Cooperative Research Centre (PBCRC) since 2015. More than 100 participants from Government, the private sector, NGOs, the knowledge sector and the community represented some 48 entities. A major outcome was to approach and convince the Indonesian Government to assign one regulation that will become an umbrella for the existing regulations that specifically mention biosecurity. An agreed priority was to promote awareness of biosecurity – human, animal and plant – and its critical relationship to biosafety, biodiversity and bioterrorism. The Workshop recognised that food security and conserving biodiversity, key objectives for Indonesia and Australia, are dependent on effective biosecurity.

2. Introduction

This project contributes to achieving the Foundation's objective of advocating the importance of investing in plant, animal, and human biosecurity science globally, regionally, and nationally for agriculture, the environment, regional communities, biodiversity and food security.

The proponents of the project, Indonesian and Australian, recognised a mutual interest in the enhancing a network of institutions commencing 2006 whose purpose has been to conduct plant biosecurity research, education, training and related activities, to enhance biosecurity in both countries.

Deputy Chair for Life Sciences, Indonesian Institute of Sciences (LIPI), Prof. Dr. Enny Sudarmonowati facilitated the gathering of 100 individuals from 48 institutions representing Government, NGO's, Industry, Universities, Research Institutes, and Biosecurity-related community organisation.

The Workshop was organised by a team involving several centres under the Deputy Chair for Life Sciences of Indonesian Institute of Sciences (LIPI) in collaboration with The Australian Plant Biosecurity Science Foundation, The Crawford Fund Australia and the Indonesian Biosecurity Foundation (IBF). The Workshop convened at The Research Centre for Biology-LIPI on 3-4 September 2018. A complete programme and list of participants appear as **Appendix 1** and **Appendix 2**.

In opening of the Workshop, Prof. Enny Sudarmonowati noted the 12-year history of IBF predecessors' contribution to the establishment of biosecurity in Indonesia.

3. Aim

To develop improved plant biosecurity cooperation between Indonesia and Australia in areas of mutual benefit.

4. Presentations

The Workshop commenced with plenary sessions. Various topics were delivered and discussed by eight plenary speakers (**Appendix 1**) on different aspects on biosecurity with key points as follows:

- a. Current status on biosecurity and biosafety in Indonesia and Australia.
- b. Current status of invasive alien species (IAS) and diseases in Indonesia and Australia.
- c. Invasive alien species and the ecological and social impact to natural forestry.
- d. Biosecurity, biodiversity and social capital: How to achieve sustainable development through networks and social capital
- e. Current status of phytosanitary regulation in Indonesia and challenges in biosafety and biosecurity system.
- f. A perspective and challenges in animal biosecurity and biosafety as well as food biosecurity.
- g. Distribution and management of plant pests and diseases in Indonesia.
- h. What are industry's needs for a strong Indonesian biosecurity?
- i. How to implement biosecurity and biosafety in the processing industry, especially in the flour milling industry.
- j. Bioethics, guidance, and recommendations in human biosafety research.
- k. Collective action to strengthening biosecurity and biosafety implementation in Indonesia.
- l. Formulating biosecurity and safety policy between Indonesia and Australia.
- m. Identifying the best model for a national consortium for biosecurity, coordinated by the Indonesian Biosecurity Foundation (IBF).

The second part (day two) of the workshop mainly discussed about coordination models, specifically the Indonesian Biosecurity Foundation, to enhance capacity building and seek opportunities for international collaborative work as well as formulating biosecurity and safety policy between Indonesia and Australia. Before the discussion session, two (2) keynote speakers presented perspectives on biosecurity and biosafety in food security and biosecurity related policy in Indonesia. The summary of intensive discussions and recommendations to the sponsors about how best the coordination of biosecurity matters can be achieved from parallel sessions (day one) was presented.

Prof. Dr. Enny Sudarmonowati proposed the formation of an Indonesian Biosecurity and Biosafety Network (InaBiSaNet) to assist in coordinating the interests of the several government instrumentalities which have interests in biosecurity, biosafety and related issues. The Network was to form a single liaison point to interface with the IBF.

The media were involved during the Workshop to spread news about this event to promote public awareness of biosecurity and biosafety issues.

5. Achievements and Outcomes

The Workshop achieved the aim of active involvement of cross-sectoral organizations with interests and commitments in biosecurity, biosafety and related issues. Forty-eight (48) organisations/institutions displayed similar perceptions as to the importance of these matters. Several challenges were identified and the Workshop discussed strategies for addressing these and formulated approaches to achieve them.

The lack of awareness of biosecurity and biosafety issues was generally accepted as an obstacle to addressing these issues. Some important points of agreement were:

1. Capacity mapping and networking among stakeholders. In this point, all participants representing 48 different institutions agreed to form a network and share with each other the information and activities regarding with biosecurity and biosafety aspects;
2. Develop capacity building for researcher and engineer by proposing joint-proposal to potential funding bodies;
3. Developing cooperation in biosafety and biosecurity with investors under a collaborative scheme of 'from investors to partners';
4. Quarantine should be the arbiter in biosecurity trade and market access issues, and
5. Raising awareness by early education in school and universities and exposed media. This also includes biosecurity capacity building in schools and enhancing awareness of biosecurity and biosafety issues for industry, universities to governmental and non-governmental bodies. Contributing to achieving these ends Workshop headlines appeared in the digital media. Released news items (**Appendix 3**) and documentation of the Workshop (**Appendix 4**).

6. Discussion and Conclusion

The project achieved its stated Aim: *'To develop improved plant biosecurity cooperation between Indonesia and Australia in areas of mutual benefit'*.

In order to generate a simple and effective model for a national biosecurity body, the identification of the current status of biosecurity and biosafety regulations in Indonesia including the phytosanitary regulation must be audited. Biosecurity and biosafety regulations in Indonesia have been formulated but implementation and enforcement are still lacking. In addition, most current biosecurity & biosafety programs have been based on meeting short-term needs, for example, dealing with a pest or disease outbreak. Therefore, there is a need for an approach to convince policy makers (institution and nation-wide) of the urgency of developing effective approaches to biosecurity and biosafety, including ethical aspects such as animal welfare as part of a national biosecurity culture.

Standardization and certification is also needed. Moreover, stakeholder awareness on the biosafety and biosecurity should be raised by involving industries in biosecurity and biosafety actions to minimise the costs to crop production, handling and storage caused by IAS.

7. Recommendations

A. Main recommendation

The workshop recognized that biosecurity awareness should be raised in all sectors. Biosecurity related to biodiversity, food and health issues should be taken into account, particularly concerning antibiotic resistance for human, plants, animals and the environment. It is **recommended** that the Government of Indonesia should assign one regulation on biosecurity that becomes an umbrella for the existing regulations, and that the word “**biosecurity**” shall be clearly stated in the mentioned regulation. These biosecurity regulations should be mainstreamed into the ministerial and local government agencies for effective implementation.

B. Other recommendations

1. Increase good communication and cooperation nationally and internationally between all sectors involved in biosafety and biosecurity to maintain the regulation addressed.
2. Generate transparency of the regulations as part of good governance.
3. Monitor post quarantine (surveillance) sustainably.
4. Create partnerships between industry and related sectors in dealing with minimising financial loss caused by pests or IAS, such as collaboration with researchers or experts to do observation, data collection and other research activities to meet industry challenges.

8. Plain English Summary

A bilateral Workshop on Biosecurity, supported by The Australian Plant Biosecurity Science Foundation, The Crawford Fund, the Indonesian Biosecurity Foundation and the Indonesian Institute of Sciences was held in Bogor, West Java, on 3 and 4 September. More than 100 participants from Government, industry, NGOs, the knowledge sector and the community represented some 48 entities. In plenary sessions and discussion groups the Workshop considered challenges to biosecurity with particular reference to trade and market access issues and maintaining biodiversity, matters of vital importance to both countries. Human, animal and plant aspects of biosecurity were all considered and the role of biosecurity in supporting biosafety was evaluated. The agreed priority was to promote awareness of biosecurity – human, animal and plant – in all sectors, including the community. The Workshop recommended that the Government of Indonesia should assign one regulation on biosecurity that becomes an umbrella for the existing regulations.

9. Appendices

Appendix 1. Programme of the Workshop

Time	Session	Presenter	Person in charge
Monday, 3 September 2018			
07.30-08.30	Registration, morning tea and coffee	Meeting Room Botany	Secretariat
08.30-08.40	National Anthem ("Lagu Indonesia Raya)		Debora Christin Purbani, M. Si Ms. Lydia N. Endewip
08.40-09.00	Welcome Remarks, Opening and Launching of Indonesia Biosecurity and Biosafety Network	Prof. Dr. Enny Sudarmonowati Deputy Chair for Life Sciences, LIPI (Welcome remarks and opening) Ms. Trish Gleeson Agricultural Counsellor Designate - Jakarta at Australian Government Department of Agriculture and Water Resources (Remarks)	Debora Christin Purbani, M. Si
09.00-09.25	Plenary session Plenary 1	Prof. Dr. Enny Sudarmonowati (Deputy Chair for Life Sciences, LIPI) Topic: Biosecurity and Biosafety in Indonesia : Status and Way Forward	Chair 1: Dr. Kusuma Dewi Sri Yulita

09.25-09.50	Plenary 2	Prof. John Lovett (The Australian Plant Biosecurity Science Foundation, Australia) Topic: Global Biosecurity: Implications for Biosafety and Biodiversity	
09.50-10.15	Plenary 3	Ms. Trish Gleeson (Agricultural Counsellor Designate – Jakarta at Australian Government Department of Agriculture and Water Resources) Topic: Current Status of IAS and Diseases in Australia	
10.15-10.30	Q&A	All speakers	
10.30-10.55	Plenary 4	Dr. Ir. Antarjo, M. Sc. (Quarantine Agency, Ministry of Agriculture, Republic of Indonesia) Topic: Current Status of Phytosanitary Regulation in Indonesia and Challenges in Biosafety and Biosecurity System	Chair 2: Dr. Dian Latifah
10.55-11.20	Plenary 5	Prof. Ian Falk (Indonesian Biosecurity Foundation IBF) Topic: Biosecurity, biodiversity & social capital: How to achieve sustainable development through networks and social capital	
11.20-11.45	Plenary 6	Dr. Sivapragasam Annamalai (Regional Director/Plantwise Regional Team Leader of CABI, Malaysia) Topic: What are industry's need for a strong Indonesian biosecurity?	
11.45-12.00	Q&A	All speakers	
12.00-12.10	Group photo	All participants	
12.10-13.30	Press conference		Esti Baina, S. Pt
	Poster session		
	Lunch	All participants	
13.30-16.00	Parallel session A (Meeting room Botani)	<i>Plant Biosecurity</i>	Moderator: Dr. Eva Erdayani

		<p>1. Prof. Dr. Ir. Sri Hendrastuti Hidayat, M.Sc (Lecturer from Department of Plant Diseases, Bogor Agricultural Institute (IPB))</p> <p>Topic: Distribution and Management of Plant Pest and Diseases in Indonesia</p> <p>2. Dr. Ir. Titiek Setyawati, M. Sc (Ministry of Environment and Forestry, Republic of Indonesia)</p> <p>Topic: Invasive Alien Species and its Ecological and Social Impact to Natural Forestry.</p> <p>3. Dr. Syarifin Firdaus (DuPont Pioneer Indonesia) Topic: Realizing Seed to Making Sustainable Agriculture and Supporting Environments.</p> <p>4. Mr. Bobby Ariyanto (PT. Indofood Bogasari Flour Mills) Topic: How to Implement Bio Security and Bio Safety in the Processing Industry, especially on the Flour Milling Industry</p>	
13.30-16.00	Parallel session B (Meeting Room Zoologi)	<p><i>Animal Security</i></p> <p>1. drh. Huda S. Darusman (Faculty of Veterinary, Bogor Agricultural Institute (IPB)) Topic: Challenges in Animal Biosafety and Biosecurity</p> <p>2. drh. R. D. Wiwiek Bagja (Indonesian Veterinary Medicine Association (PDHI)) Topic: A Perspective on the Animal Welfare and Biosecurity</p>	Moderator: Drh. R Taufiq Purna Nugraha
13.30-16.00	Parallel session C (Meeting room InaCC)	<p><i>Human Security</i></p> <p>1. Prof. Herawati Sudoyo (Vice Chairman of Eijkman Institute)</p> <p>Topic: Bioethic in Human Biosafety Research</p> <p>2. dr. Ni Ketut Susilarini, M. S (National Institute of Health Research and Development (NIHRD), Ministry of Health of Republic of Indonesia)</p> <p>Topic: Collective action to strengthening Biosecurity and Biosafety Implementation in Indonesia.</p>	Moderator: Dr. Ratih Asmana Ningrum

		<p>3. Dr. Puspita Lisdiyanti, M. Agr. Chem</p> <p>(Research Centre for Biotechnology, Indonesian Institute of Sciences)</p> <p>Topic: Capacity Building of Biorisk Management in ASEAN</p>	
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Time	Session	Presenter	Person in charge
Tuesday, 4 September 2018			
08.00-08.30	Registration, morning tea and coffee	Meeting Room Botani	Secretariat
08.30-08.55	Plenary session 7	<p>Dr. Ir. Agung Hendriadi, M.Eng (Head of Food Security Agency of Indonesia) Topic: Perspective on biosecurity and biosafety in food security.</p>	<p>MC:</p> <p>Debora Christin Purbani, M. Si</p>
08.55-09.20	Plenary session 8	<p>Dr. Theofransus Litaay (Senior advisor at Deputy V, The Executive Office of the President)</p> <p>Topic: Discussion on Opportunities and Challenges to Develop Indonesia's One Biosecurity Policy</p> <p>Paper presented in his absence</p>	Moderator: Dr. Atit Kanti, M. Sc
09.20-09.35	Q &A		
09.35-10.35	Presentation and Discussion of parallel session (day one) results	<p>Dr. Eva Erdayani (Plant security)</p> <p>Drh. R Taufiq Purna Nugraha (Animal security)</p> <p>Bugi Ratno Budiarto, M.Sc (Human security)</p>	<p>MC & Moderator:</p> <p>Debora Christin Purbani, M. Si</p>
10.35-11.45	Discussion	<ul style="list-style-type: none"> - Identify areas for future project work and formulate biosecurity and safety policy between Indonesia and Australia. - Technical working group for the follow up activities (joint proposal/research). 	Dr. Surya Satriya
11.45-12.00	Wrap-up and Closing remarks	Prof. Dr. Enny Sudarmonowati (Deputy Chair for Life Sciences, LIPI)	Debora Christin Purbani, M. Si
12.00-13.00	Lunch	All participants	Zuraida Chairani
13.00-17.00	Field excursion to Bogor Botanical Garden LIPI	All participants	Dr. Iyan Robiansyah (Excursion Team)

Schedule of Field Excursion at Bogor Botanical Garden-LIPI

Time	Session	Person in charge
Tuesday, 4 September 2018		
13.00-14.00	Journey from RC Biology to Bogor Botanical Garden	Excursion Team
14.00-	All participants arrive in the Main Gate (Pintu 1)	Excursion Team
14.00-14.20	Visit Bogor Zoological Museum (Museum Zoologicum Bogoriense)	Excursion Team
14.20-14.40	Visit Rafflesia collection in Kandang Badak	Excursion Team
14.40-15.40	Coffee break, group photo and pray	Excursion Team
15.40-16.30	Visit Museum Sejarah Alam Indonesia (Munasain)	Excursion Team

Appendix 2. List of Speakers, Participants and Institutions

A. Plenary Session			
No	Name	Institution	Email
1	Prof. Dr. Enny Sudarmonowati	Indonesian Institute of Sciences (LIPI)	s_enny@hotmail.com
2	Ms. Patricia (Trish) Gleeson	Agricultural Counsellor Designate - Jakarta at Australian Government Department of Agriculture and Water Resources	trish.gleeson@dfat.gov.au
3	Prof. John Lovett	The Australian Plant Biosecurity Science Foundation, Australia	lovetassociates@bigpond.com
4	Dr. Ir. Antarjo, M.Sc	Quarantine Agency, Ministry of Agriculture, Republic of Indonesia	antarjo.dikin@yahoo.com
5	Prof. Ian Falk	Indonesian Biosecurity Foundation IBF	ianhalk@gmail.com
6	Dr. Sivapragasam Annamalai	Regional Director/Plantwise Regional Team Leader of CABI, Malaysia	a.siva@cabi.org
7	Dr. Ir. Agung Hendriadi, M.Eng	Head of Agency for Food Security (Badan Ketahanan Pangan)	pelitamoe@yahoo.com
8	Dr. Theofransus Litaay	Policy advisor – Executive Office of the President, Republic of Indonesia/Lecturer and Researcher – Satya Wacana Christian University, Salatiga	theolitaay@gmail.com
B. Parallel session (Plant Security)			
1	Prof. Dr. Sri Hendrastuti Hidayat	Department of Plant Diseases, Bogor Agricultural Institute (IPB)	srihastutihidayat@gmail.com
2	Dr. Titiek Setyawati	Ministry of Environment and Forestry, Republic of Indonesia	titiek2962@gmail.com
3	Mr. Adrian Keet	Made's Banana Flour Co, Bali	adriankeet360@gmail.com
4	Mr. Bobby Arianto	PT. Indofood Sukses Makmur, Bogasari Flour Mills	bobby.ariyanto@bogasariflour.com
C. Parallel session (Animal security)			
1	drh. Huda S. Darusman	Faculty of Veterinary, Bogor Agricultural Institute (IPB)	hudaappsala@yahoo.com
2	drh. R.D. Wiwiek Bagja	Indonesian Veterinary Medicine Association (PDHI)	rdwbagja@gmail.com
D. Parallel session (Human Security)			
1	Prof. Herawati Sudoyo	Vice Chairman of Eijkman Institute	hera_sudoyo@yahoo.com
2	dr. Ni Ketut Susilarini	National Institute of Health Research and Development (NIHRD), Ministry of Health of Republic of Indonesia	niketutsusi@gmail.com

3	Dr. Puspita Lisdiyanti, M. Agr. Chem	Research Centre for Biotechnology, Indonesian Institute of Sciences	puspita.lisdiyanti@bioteknologi.lipi.go.id
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A. Plant Biosecurity			
No	Name	Institution	Email
1	Vincentia Esti Windiastri, S.Si	Research Centre for Biotechnology-LIPI	vestiew@yahoo.com
2	Dr. Wahyuni, M.Biomed	Research Centre for Biotechnology-LIPI	wahyu004@gmail.com
3	Hartati, M.Si	Research Centre for Biotechnology-LIPI	tatiktikta@yahoo.com
4	Dr. Puspita Deswina	Research Centre for Biotechnology-LIPI	pdeswina@gmail.com
5	Dr. Dwi Setyorini	Research Centre for Biology LIPI	dw.setyo19@gmail.com
6	Dr. Ir. Joeni Setijo Rahajoe_staff 1	Research Centre for Biology-LIPI	yunanty@yahoo.com
7	Dr. Ir. Joeni Setijo Rahajoe_staff 2	Research Centre for Biology-LIPI	yunanty@yahoo.com
8	Dr. Riksfardini A. Ermawar	Research Centre for Biomaterial-LIPI	rikfardini.ermawar@biomaterial.lipi.go.id
9	Dr. Andi Salamah	Department of Biology – University of Indonesia	andi.salamah@gmail.com
10	Dr. Eka Martiningsih	The University of Mahasaraswati	ekamartini@gmail.com
11	Dr. Jenny E. R. Markus	The University of Nusa Cendana	mjenyer@gmail.com
12	Dr. Surya Satriya	The University of Kristen Satya Wacana	suryasatriya@gmail.com
13	Dr. Wiske Rotinsulu	The University of Sam Ratulangi	wiskerotinsulu@gmail.com
14	Dr. Jerry Tambun	Pacific Institute	jgtambun@yahoo.co.id
15	Dr. Soekisman Tjitrosemito	Southeast Asian Regional Centre for Tropical Biology (SEAMEO BIOTROP)	s.tjitrosemito@biotrop.org
16	Fujio Panggabean, MP	Quarantine Agency, Ministry of Agriculture Republic of Indonesia	fujio.panggabean@gmail.com
17	Dr. Ihsan Nugroho	Quarantine Agency, Ministry of Agriculture Republic of Indonesia	kehati.nabati@gmail.com
18	Dr. Sutomo, M.Sc	Kebun Raya Bali LIPI/Edith Cowan University Australia	tommo.murdoch@gmail.com
19	Endah Yulia, S.P., M.Sc., P.hD	Fakultas Pertanian Unpad/Murdoch University, Australia	endah.yulia@unpad.ac.id

20	Dr. Eny Ida Riyanti	Indonesian Centre for Agricultural Biotechnology and Genetic Resources Research and Development, Ministry of Agriculture Republic of Indonesia (BB Biogen)	enyir2@yahoo.com.au
21	Dr. Edy Listanto	Indonesian Centre for Agricultural Biotechnology and Genetic Resources Research and Development, Ministry of Agriculture Republic of Indonesia (BB Biogen)	edy_listanto@yahoo.com
22	Dr. Syarifin Firdaus	DuPont Pioneer Indonesia	syarifin.firdaus@ pioneer.com
23	Abdul Syukur Jamal, SP, M.Si	Indonesian Biosecurity Foundation (IBF)	andygany@yahoo.com
24	Dr. Ir. Suryo Wiyono, M.Sc.Agr.	Department of Plant Diseases, Bogor Agricultural Institute (IPB)	suryowi269@gmail.com
25	Sarah Asih Faulina, M.Sc	Puslitbang Hutan, Badan Litbang dan Inovasi, Kementerian Lingkungan Hidup dan Kehutanan	sarahfaulina@gmail.com
26	Dr. Joko Ridho witono	Centre for Plant Conservation Botanic Gardens-LIPI	jrwitono@yahoo.com
27	Dr. Cahyo Nugroho	Fauna and Flora International-Indonesia Programme (FFI-IP)	nugroho.cahyo@gmail.com
28	Dr. Decky Indrawan Junaedi	Cibodas Botanic Garden, LIPI	deqee82@gmail.com
29	Dr. Musyarofah Zuhri	Cibodas Botanic Garden, LIPI	ova_zuhri@yahoo.com
30	Dr. Ahmad Fathoni	Research Centre for Biotechnology, LIPI	ahmad.fathoni1737@ gmail.com
31	Dr. N. Sri Hartati	Research Centre for Biotechnology, LIPI	hartati12@yahoo.com
32	Dr. Dian Latifah	Centre for Plant Conservation Botanic Gardens, LIPI	Dian.latifah@gmail.com
33	Dr. Kusuma Dewi Sri Yulita	Research Centre for Biology, LIPI	yulita.kusumadewi@ gmail.com
34	Dr. Eva Erdayani	Research Centre for Biotechnology, LIPI	eerdayani@yahoo.com
35	Supatmi, M. Biotech	Research Centre for Biotechnology, LIPI	patmi2bio@gmail.com
36	Dr. Iyan Robiansyah	Centre for Plant Conservation Botanic Gardens, LIPI	iyanrobiansyah@ yahoo.com

B. Animal Security			
No	Name	Institution	Email
1	Silmi Mariya, S. Si., M. Si.	Program Biomedis di Pusat Studi Satwa Primata (PPSP) – LPPM – IPB, Bogor	shelmhie@yahoo.com

2	drh. Silvia Prabandari, M. Si.	PJ Lab. Patologi di Pusat Studi Satwa Primata (PPSP) – LPPM – IPB, Bogor	viviarin@yahoo.com
3	drh. Indrawati Sendow, M. Sc.	Centre for Veterinary Research, Bogor	indrawati.sendow@yahoo.com
4	Astri Zulfa, M. Si.	Lecturer, Faculty of Biologi, National University (UNAS)	achizulfa@gmail.com
5	Drs. Tatang Mitra Setia, M.Si	Lecturer, Faculty of Biologi, National University (UNAS)	tatangmitra52@gmail.com
6	Dr. Ratna Komala	Staf Pengajar Jur. Biologi UNJ, Jakarta	ratna_komala08@yahoo.co.id
7	drh. Sri Kayati Widyastuti	Laboratorium Penyakit Dalam Fakultas Kedokteran Hewan Universitas Udayana	drhtuti@yahoo.com
8	Prof. Dr. Endang Tri Margawati	Research Centre for Biotechnology, LIPI	endangtri@hotmail.com
10	Dr. Siti Nuramali Priyono	Research Centre for Biology, LIPI	sitipriyono58@yahoo.com
11	Prof. Dr. Ibnu Maryanto	Research Centre for Biology – LIPI	ibnumaryanto@gmail.com
12	Mohammad Irham, M. Sc.	Research Centre for Biology – LIPI	irham.mzb@gmail.com
13	Dr. rer. Nat. Evy Ayu Rida	Research Centre for Biology – LIPI	eva.arida@gmail.com
14	Andri Permata Sari, S. Si.	Research Centre for Biology – LIPI	csandrisari@gmail.com
15	Nurul Inayah, M. Sc.	Research Centre for Biology – LIPI	nurulinayah.as@gmail.com
16	Syafitri Anita, M. Si.	Research Centre for Biology – LIPI	syafiet@gmail.com
17	drh. Pangda Sopha	Research Centre for Biology LIPI	pangdasopha@gmail.com
18	Dr. Yantyati Widyastuti	Research Centre for Biotechnology, LIPI	yantyatiwidyastuti@yahoo.com
19	Dr. Ekayanti M. Kaiin	Research Centre for Biotechnology, LIPI	ekyantimk@yahoo.com
20	drh. Ade Erma Suryani, M.Sc	Research Unit for Natural Product Tecnology (BPTBA) LIPI	deyan02@gmail.com
21	Drh. Mohammad Faiz Karimy, M.Biotech	Research Unit for Natural Product Tecnology (BPTBA) LIPI	mfaizkarimy@gmail.com
22	Dr. Mirza Kusriani	Fakultas Kehutanan IPB	mirza_kusriani@yahoo.com
23	Yuri Sutanto, Ph.D	PT. Central Proteina Prima Tbk	yuri.sutanto@cpp.co.id
24	Dr. Irawan Sugoro	Pusat Aplikasi Isotop dan Radiasi (PAIR) Batan	irawansugoro@gmail.com
25	drh. Febi Widiyanti Ekasari	Vaksindo Satwa Nusantara	febi.widiyanti@japfa.com
26		Badan Karantina Hewan Kementan RI	donicitayam@gmail.com
27	Dr. Noviar Andayani	Wildlife Conservation Society (WCS)	nandayani@wcs.org

28	Ir. Irianto Oetomo	PT. Cipta Aditama Abadi	iroetomo@gmail.com
29	Dr. Hary Sutrisno	Research Centre for Biology, LIPI	sutrisnohari@yahoo.com
30	Direktur Kesehatan Hewan	Direktorat Kesehatan Hewan, Ditjen Peternakan dan Kesehatan Hewan Kementerian Pertanian	rince.butarbutar@gmail.com
31	Dr. Wartika Rosa Farida	Research Centre for Biology, LIPI	wrosafarida@gmail.com
32	Rini Rachmatika, M. Sc	Research Centre for Biology, LIPI	r.rachmatika@gmail.com
33	Drh. R. Taufiq Purna Nugraha	Research Centre for Biology, LIPI	Tragulus@gmail.com
34	Drh. Nina Herlina, M. Si	Research Centre for Biotechnology, LIPI	nina.herlina.0212@gmail.com

C. Human Security			
No	Name	Institution	Email
1	Dr. Farah Novita Coutrier	Eijkman Institute	f_coutrier@yahoo.com
2	Dr. I Made Artika	Eijkman Institute	imart@eijkman.go.id
3	Dr. Josephine Siregar	Eijkman Institute	pipin@eijkman.go.id
4	Sri Surati	PPOMN Badan POM	suratisaya@yahoo.co.id
5	Niza Nemara, Apt. M.Si	PPOMN Badan POM	nnemara@yahoo.com
6	Dr. Wanny Basuki	World Bio Haz Tec (Wbht)	wbasuki@worldbiohaztec.com
7	Dr. Sugiyono Saputra	Pusat Penelitian Biologi LIPI	mohon dilengkapi email
8	Dr. Achmad Dinoto	Pusat Penelitian Biologi LIPI	achmaddinoto@yahoo.com
9	Dr. Yopi	Pusat Penelitian Bioteknologi LIPI	yopisunarya@gmail.com
10	Dr. rer. Nat. Wien Kusharyoto	Pusat Penelitian Bioteknologi LIPI	wien.kusharyoto@lipi.go.id
11	Dr. Asrul M. Fuad	Pusat Penelitian Bioteknologi LIPI	asrul.m.fuad@gmail.com
12	Enty, dr. SP.MK	University of Atmajaya Jakarta	entysmi@yahoo.com
13	Sem Samuel Surja, dr. M.Biomed	University of Atmajaya Jakarta	sem.surja@gmail.com; sem.samuel@atmajaya.ac.id
14	Rika Yuliwulandari, dr., Ph.D	University of Yarsi	rika.yuliwulandari@yarsi.ac.id
15	Dr. Muhammad Nursid	Balai Besar Riset Pengolahan Produk dan Bioteknologi Kelautan dan Perikanan, Kementerian Kelautan dan Perikanan	muhammadnursid@gmail.com
16	Drs. Sugindro, Apt., M.Si	Wakil Kepala Lembaga Biologi Vaksin Puskesad	sugindro1966@yahoo.com

17	Mr. Mohammad Fahmi	National Standardization Agency of Indonesia	moh.fahmia@bsn.go.id
18	Mrs. Riska Rozida Bastomi	National Standardization Agency Of Indonesia	riska@bsn.go.id
19	Dewi Monasari, M. Si	Laboratorium DNA Forensik Pusdokkes POLRI	Labdna_pusdokkes@yahoo.com
20	Ifan Wahyudi, M.Biotech	Laboratorium DNA Forensik Pusdokkes POLRI	Labdna_pusdokkes@yahoo.com
21	A.A.G. Raka Swastika, M.Biotech	Laboratorium DNA Forensik Pusdokkes POLRI	Labdna_pusdokkes@yahoo.com
22	Lia Anggraeni, S. Si.	Kedokteran Kepolisian Pusdokkes POLRI	Labdna_pusdokkes@yahoo.com
23	Dr. drh. Susan M. Noor, MVSc	Program Section of Indonesia Biorisk Association	susan_yurismo@yahoo.com
24	Vivi Setiawaty Nawawi	National Institute of Health Research and Development, Research and Development Centre of Biomedical and Basic Health Technology	vivi_s@litbang.depkes.go.id
25	Dr. Aroem Naroeni	Virology And Cancer Pathobiology Research Centre (VCPRC), Medical Faculty, Universitas Indonesia – Ciptomangunkusumo National Hospital	anaroeni@yahoo.fr; office@fk.ui.ac.id; humas@fk.ui.ac.id
26	Tri Sundari	Bureau of Cooperation and Public Communication, The Ministry of Research, Technology and Higher Education	trisundari@gmail.com
27	Dr. Sri Harjati Suhardi	Perhimpunan Mikrobiologi Indonesia (PERMI) and Institute Teknologi Bandung (ITB)	
28		Perhimpunan Ahli Mikrobiologi Klinik Indonesia	iarw.pamki@yahoo.co.id
29	Dr. Mutia Rahadjani	PT. Roche Indonesia	mutia.rahadjani@roche.com
30	Dr. Wangsa Tirtaismaya	Dexa Medica	
31	Dr. Ratih Asmana Ningrum	Research Centre for Biotechnology, LIPI	ratih.asmana@gmail.com
32	Dr. Atit Kanti, M. Sc.	Research Centre for Biology, LIPI	atitkanti@yahoo.com
33	Dian Fitria Agustiyanti, M. Si	Research Centre for Biotechnology, LIPI	dian.fitria07@gmail.com
34	Bugi Budiarto, M. Sc.	Research Centre for Biotechnology, LIPI	budiarto_bugie@yahoo.com
35	Dr. Puspita Lisdiyanti	Research Centre for Biotechnology, LIPI	puspita.lisdiyanti@bioteknologi.lipi.go.id

List of Institutions

No	Name of Institution
1	Australian Government Department of Agriculture and Water Resources
2	The Australian Plant Biosecurity Science Foundation, Australia
3	CABI, Malaysia
4	Research Centre for Biotechnology-LIPI
5	Research Centre for Biology LIPI
6	Research Centre for Biomaterial-LIPI
7	Research Unit for Natural Product Tecnology (BPTBA)-LIPI
8	Centre for Plant Conservation Botanic Gardens-LIPI
9	Eka Karya Kebun Raya Bali LIPI/Edith Cowan University Australia
10	Quarantine Agency, Ministry of Agriculture Republic of Indonesia
11	Agency for Food Security
12	Indonesian Centre for Agricultural Biotechnology and Genetic Resources Research and Development, Ministry of Agriculture Republic of Indonesia (BB Biogen)
13	Puslitbang Hutan, Badan Litbang dan Inovasi, Kementerian Lingkungan Hidup dan Kehutanan
14	Centre for Veterinary Research, Bogor
15	Southeast Asian Regional Centre for Tropical Biology (SEAMEO BIOTROP)
16	Pacific Institute
17	National Standardization Agency Of Indonesia
18	Kementerian Kelautan dan Perikanan
19	Lembaga Biologi Vaksin-PUSKESAD
20	Laboratorium DNA Forensik Pusdokkes POLRI
21	World Bio Haz Tec (Wbht)
22	Indonesian Biosecurity Foundation (IBF)

23	PPOMN Badan POM
24	Eijkman Institute
25	Pusat Aplikasi Isotop dan Radiasi (PAIR) Batan
26	The University of Mahasaraswati
27	The University of Nusa Cendana
28	The University of Kristen Satya Wacana
29	The University of Sam Ratulangi
30	Pusat Studi Satwa Primata (PPSP) - LPPM - IPB, Bogor
31	Department of Plant Diseases, Bogor Agricultural Institute (IPB)
32	Faculty of Biology, National University (UNAS)
33	Faculty of Biology UNJ, Jakarta
34	Fakultas Kedokteran Hewan Universitas Udayana
35	Faculty of Agriculture-University of Padjajaran/Murdoch University, Australia
36	Fakultas Kehutanan IPB
37	University of Atmajaya Jakarta
38	University of Yarsi
39	Vaksindo Satwa Nusantara
40	PT. Central Proteina Prima Tbk
41	DuPont Pioneer Indonesia
42	PT. Indofood Sukses Makmur, Bogasari Flour Mills
43	Fauna and Flora International-Indonesia Programme (FFI-IP)
44	Badan Karantina Hewan Kementan RI
45	Wildlife Conservation Society (WCS)
48	Indonesia Biorisk Association

47	Made's Banana Flour Pte Ltd, Bali
48	Cibodas Botanical Garden-LIPI

Appendix 4. List of Media

Published dates	Title of news	Media name
04-Sep-18	Biosecurity belum mendapat perhatian serius	Kompas
03-Sep-18	Indonesia perlu perkuat	http://www.beritasatu.com/satu/508533-indonesia-perlu-perkuat-keamanan-hayati-dari-spesies-asing.html
03-Sep-18	LIPI ingatkan tantangan Biosekuriti dan keamanan	https://megapolitan.antaranews.com/berita/43393/lipi-ingatkan-tantangan-biosekuriti-dan-keamanan
03-Sep-18	Indonesia dan Australia Bahas Penerapan Keamanan Hayati	http://www.agronet.co.id/detail/indeks/berita/2212-Indonesia-dan-Australia-Bahas-Penerapan-Keamanan-Hayati

Appendix 4. Documentation of the Workshop

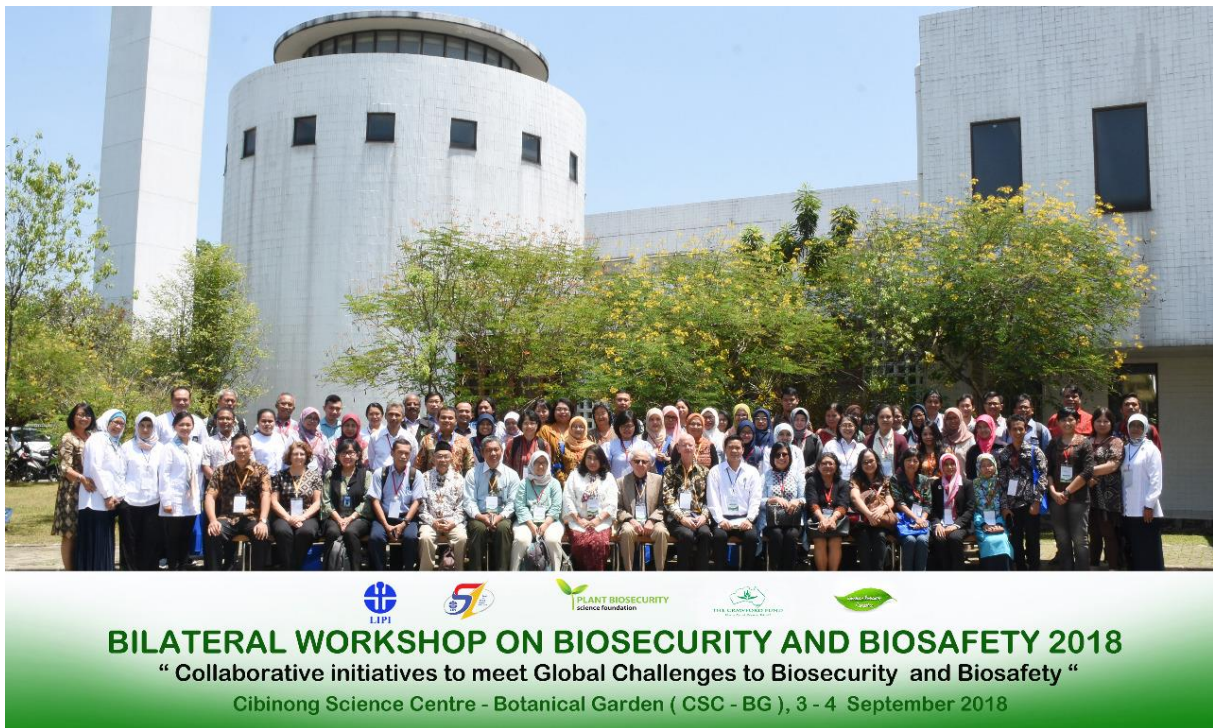


Figure 1. Bilateral Workshop on Biosecurity and Biosafety. Research Centre for Biology-LIPI, 3 September 2018.

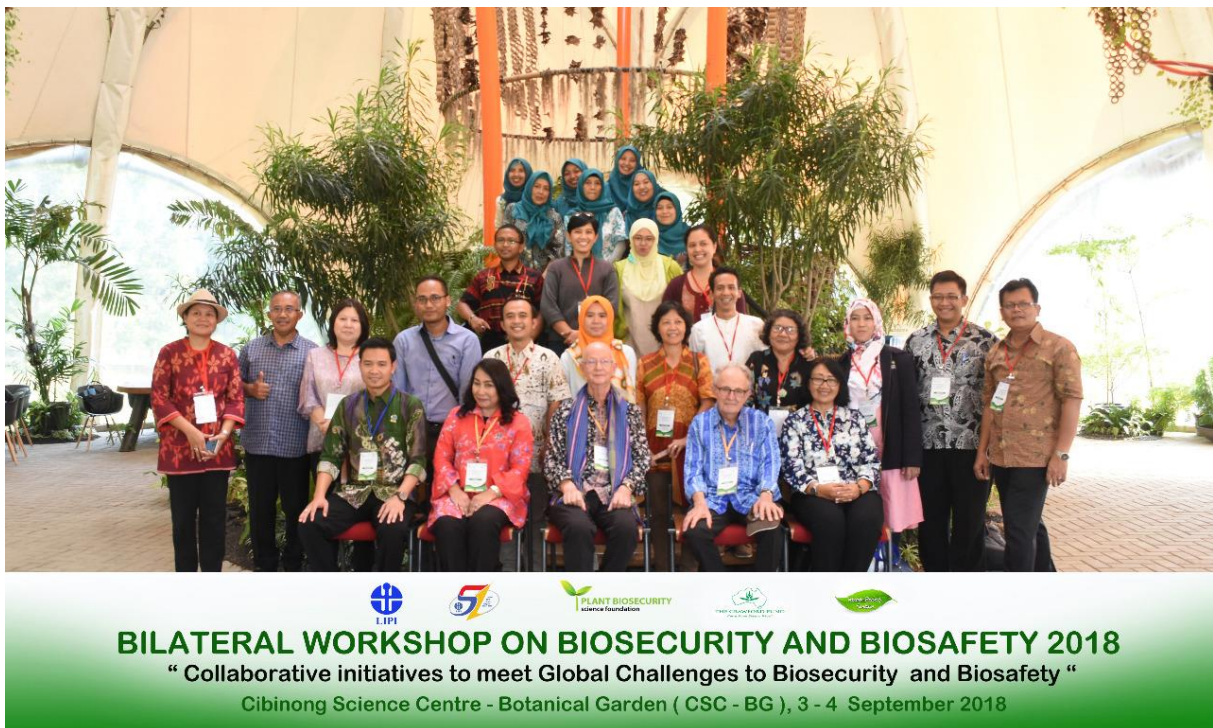


Figure 2. Field Excursion. Visited Eco Dome at Bogor Botanical Garden. Bogor, 4 September 2018.

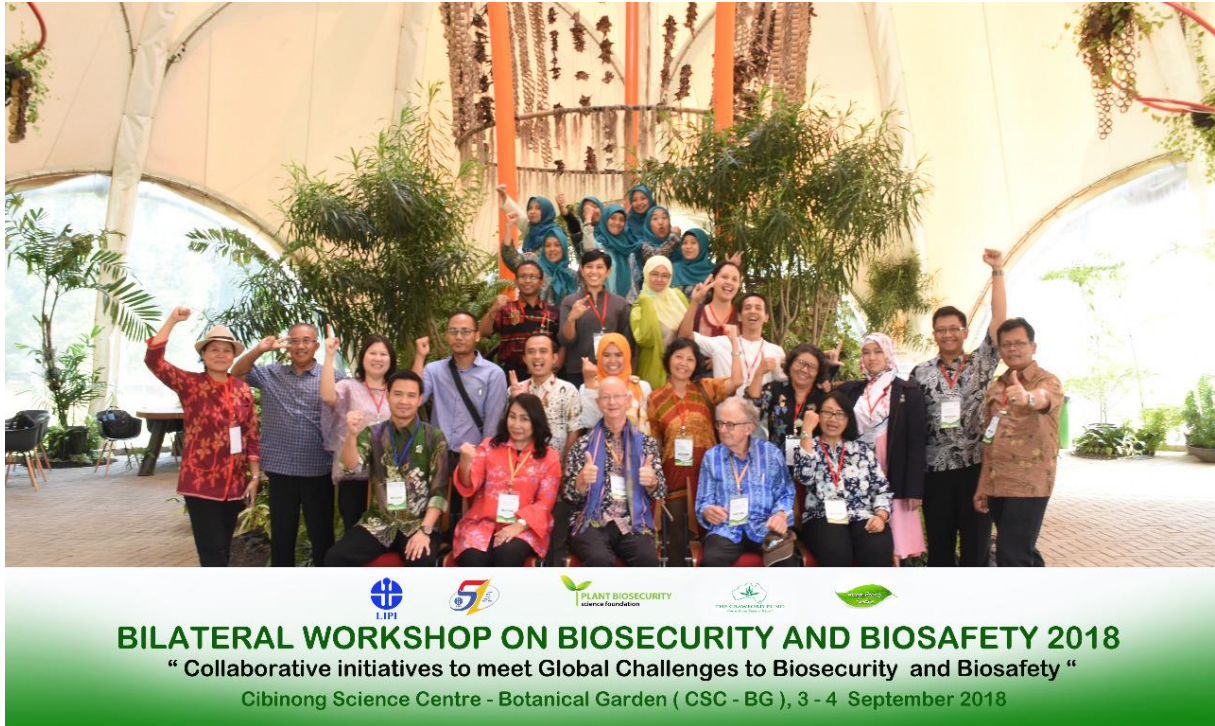


Figure 3. Field Excursion. Visited Eco Dome at Bogor Botanical Garden. Bogor, 4 September 2018.



Figure 4. Field Excursion. Visited Museum Nasional Sejarah Alam Indonesia. Bogor, 4 September 2018.



PLANT BIOSECURITY
science foundation

Australian Plant Biosecurity Science Foundation

Level 2, Building 22, Innovation Centre
University Drive, University of Canberra
Bruce ACT 2617

LPO Box 5012
Bruce ACT 2617

P: +61 2 6201 2882
F: +61 2 6201 5067
E: info@apbsf.org.au
www.apbsf.org.au