



Terms of Reference (ToR)

2nd Tropical Peatland Roundtable

Discussion

Managing tropical peatlands is a new political urgency that requires strong commitments of multistakeholders to conserve for sustainable use of peatland

Organized by:

Research, Development, and Innovation Agency (FOERDIA); Peatland Restoration Agency (BRG); International Peatland Society (IPS); Japan Peatland Society (JPS); Research Institute for Humanity and Nature (RIHN) and Peat Society of Indonesia (HGI)

**Jakarta
2018**

Background

Tropical peatlands are found in more than 80 countries, covers 423,236,900 ha, yet they remain among the least understood and monitored ecosystems in the world. Tropical peatlands are located in developing regions requiring assistance to manage peatlands sustainably. According to Xu et al¹, Asia covers 162,318,200 ha; distributed in South America: 48,583,200 ha, Africa: 18,706,100 ha. Tropical peatland has undergone accelerated degradation over at least the last two decades (Giesen 2004, Joosten and Clarke 2010, Miettinen et al. 2016, Sönke et al. 2016, Tsujino et al. 2016) by fire, extreme climate, and others, to peak on 2015.

Despite the catastrophic 2015 peat fire disaster in Indonesia, the Government has undertaken a massive effort to control fire hotspots, resulting in a 93.6% reduction in just two years. Established peatland management is as a national priority and, in doing so, turned policy into actions. Peatland management in Indonesia now involves collaborative work with stakeholders and partners. How important it is for Indonesia to remain vigilant at all levels when it comes to peat conservation, while also nurturing strong support from all stakeholders, including civil society and the private sector. How the Indonesian Government has renewed and reinforced the moratorium on peatland development, as well as stepped up law enforcement efforts aimed at combating peat-related violations.

Conducting new integrated data, information, and tool is paramount to informing proper prioritization between countries and partners sometimes competing objectives of climate and development goals, and finding ways for peatland conservation, management and restoration to serve as a plausible aid to both. Peatland management is more advanced in some countries than in others, offering valuable opportunities for international cooperation and the sharing of lessons learned in such policy and decision-making processes.

The Indonesian Government brought with it an inspiring story of successful peatland management which it had the chance to present up on the world stage. In regard for respective above mentioned, lead up trajectories, the Government of Indonesia c.q. Ministry of Environment and Forestry has established the International Tropical Peatland Center-ITPC, which also mandated by Jakarta Declaration.

Many international initiatives urge to save a peatlands – the largest terrestrial organic soil carbon stock, which contain almost 100 times more carbon than tropical forests. The initiation seeks mobilize governments, international organizations and academia in an effort to protect peatlands. Conventions, agreements, tractates and more; have been become a binding comitment of countries/parties to save the peat; such Convention on Climate Change, Convention on Desertification, and Convention on Biodiversity. Also, many initiatives already show up their roles such as Global Peatland Initiative, Global Landscape Forum, International Peatland Society, Japan Peatland Society, and more.

As the first activity of the International Tropical Peatland Center, in collaboration Research, Development, and Innovation (FOERDIA) with Peatland Restoration Agency (BRG), supported by International Peatland Society (IPS), and the Japan Peatland Society (JPS), to extend an initiative, will convene a Tropical Peatland Roundtable Discussion to bring Jakarta Declaration takes into action, including activities as follows: 1) Promoting International Tropical Peatland Center – ITPC; 2) Integrating monitoring system in tropical peatland; 3) International committee for technical consultation; 4) Integrating restoration

¹ Xu et al. (2018): PEATMAP: Refining estimates of global peatland distribution based on a Meta analysis. *Catena* 160: 134-160

model based on KHG (peat hydrological units); 5) determining a research needs and scientific and information gaps and promoting capacity building.

Objectives

The goal of this meeting is to implement the International Tropical Peatland Center (ITPC) as well as the responsible management of tropical peatlands. In order to reach this goal five objectives include:

1. Promoting International Tropical Peatland Center (ITPC);
2. Performing International committee for Technical Consultation;
3. Reporting and discussing progress on the development of an "Integrated Monitoring System";
4. Discussing an Integrated Model Project based on KHG (peatland hydrological unit)

Expected outcomes

It is expected that the Tropical Peatland Roundtable will result in the following outputs:

1. Committed contribution by partners who involved at the meeting to implement of the International Tropical Peatland Center's strategic plan.
2. Progress and plan of action on Organizing an International Committee for Technical Consultation
3. Progress and Plan of action on the development of an Integrated Monitoring System
4. Progress and Plan of Action on establishment of a Model Project.

Date and Venue

The meeting hosted by the Ministry of Environment and Forestry in collaboration Research, Development, and Innovation Agency (FOERDIA) with Peatland Restoration Agency (BRG), will be convened from 12 November 2018 to 16 November 2018 in Batam and Meranti Island.

Venue:

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| 1 st Day, 12 November | : Roundtable Meeting at Batam |
| 2 nd Day, 13 November | : Roundtable Meeting at Batam |
| 3 th - 5 th Field Trip, 14-16 November | : Meranti Island, Riau Province,
including Desa Lukun, Desa
Tanjung Sari, and Desa Sei Tohor |

Invitees and Partners

The Ministry of Environment and Forestry plans to invite all parties who interested to conserve a tropical peatlands: interest countries, intergovernmental organizations, international organizations, national governments, business/private sectors, and Non-Governmental Organizations. An estimated 100 attendees will meet at five days the Roundtable Meeting and field visit. The identified invitees are:

Ministry of Environment and Forestry

1. Ir. Karliansyah (Director General-DG PPKL)
2. Dr. Agus Justianto, M.Sc. (Director General FOERDIA)
3. Dr. Kirsfianti Ginoga, M.Sc. (Director FRDC-FOERDIA)
4. Dr. Syaiful Anwar, M.Sc. (Director SEPCCRDC-FOERDIA)
5. Ir. Sri Parwati Murwani Budisusanti, M.Sc. (DG PPKL)
6. Representatives of DG of Climate Change (3 persons)
7. Ir. Tabroni, MM (BP2LHK Palembang)
8. Ir. Tjuk Sasmito Hadi, M.Sc. (BP2LHK Banjarbaru)
9. Dr. Haruni Krisnawati (FOERDIA)
10. Dr. Hesti Lestari Tata (FOERDIA)
11. FOERDIA (3 persons)
12. Direktorat PPKL KLHK (3 persons)

Government Institutions - Ministry

13. Prof. Dr. Dedi Nursyamsi (BBSDLP)

Government Institutions non Ministry

14. Dr. Albertus Sulaiman (BPPT)
15. Awaluddin, S.Pi., M.Sc. (BPPT)
16. BMKG (1 person)
17. LAPAN (1 person)
18. BIG (1 person)
19. LIPI (1 person)

Peat Restoration Agency-BRG

20. Ir. Nazir Foead, M.Sc. (Director, BRG)
21. Dr. Budi S. Wardhana (BRG)
22. Dr. Alue Dohong (BRG)
23. Dr. Myrna A. Safitri (BRG)
24. Dr. Haris Gunawan (BRG)
25. Drs. Irwan Natsir, M.Si
26. Prof. Azwar Maas (BRG Expert Panel)
27. Dr. Bambang Setiadi (BRG Expert Panel)
28. Prof. Indratmo Sukarno (BRG Expert Panel)
29. Prof. Gusti Z. Anshari (BRG Expert Panel)
30. Prof. Ashaluddin Jalil (BRG Expert Panel)
31. Ir. I Nyoman Suryadiputra (BRG Expert Panel)
32. Dr. Asmadi Saad (BRG Expert Panel)
33. Drs. Darmae Nasir (BRG Expert Panel)
34. Prof. Bambang Hero Saharjo (BRG Expert Panel)
35. Dr. Enos H. Rumansara (BRG Expert Panel)
36. Ir. Hanni Adiaty, M.Si. (BRG Expert Panel)
37. Ir. C. Nugroho Priyono, M.Sc. (BRG)
38. Abdul Karim, M.E (BRG)
39. Dian Afriyanti, M.Sc. (BRG)
40. TRGD Riau (2 persons)

Intergovernmental Organizations

41. Dr. Robert Nasi, (Director-CIFOR)
42. Prof. Daniel Murdiyarso (CIFOR)
43. CIFOR (1 person)
44. ICRAF (1 person)
45. JICA (1 person)

46. USAID (1 person)

Non Governmental Organizations

47. Aljosa Hooijer (Deltares)
48. Bas Tinhoud (Wetlands International, Technical Officer Climate Smart-Land Use)
49. Pieter van Eijk (Wetlands International, Program Head Deltas and Coast)
50. Arif Budiman, (Winrock International)
51. Marcel Silvius (Country Representative at Global Green Growth Institute, Indonesia)
52. World Resource Institute (WRI) Indonesia (1 person)
53. WWF (1 person)
54. WALHI (1 person)
55. Wetland International Indonesia (1 person)
56. World Bank (1 person)
57. MCAI (1 person)
58. ICCTF (1 person)

Universities

59. Prof. Osamu Kozan (Kyoto University)
60. Dr. Daisuke Naito (Kyoto University)
61. Prof. Dirk Haufman (Wageningen University)
62. Dr. Aritta Suwarno (Wageningen University)
63. Lahiru Wijedasa, (National University Singapore)
64. Prof. Eeva Stiina Tuittila (Eastern Finland University)
65. Prof. Dr. Paavo Pelkonen (Eastern Finland University)
66. Dr. Pasi Kaskinen (Finland University)
67. Alexander K. Sayok (Universiti Malaysia Sarawak)
68. Dr. Hans Joosten (University Greifswald Germany)
69. Prof. Shigeo Kobayashi (Kyoto University)
70. A/Prof. Paul Dargusch (The University of Queensland)
71. Dr. Kerrie Wilson (The University of Queensland)
72. Dr. Hidenori Takahashi (Hokkaido Institute of Hydro-climate)
73. Hirose Ehara (Nagoya University)
74. Dr. Jyrki Jauhiainen (University of Helsinki)
75. Dr. Katsuya Osozawa (Ehime University)
76. Dr. Keiji Kimura (Nara University)
77. Dr. Le Phat Quoi (Ho Chi Minh National University)
78. Dr. Le Thuyen Xuan (Ho Chi Minh National University)
79. Dr. Masami Kaneko (Rakuno Gakuen University)
80. Dr. Takashi Hirano (Hokkaido University)
81. Dr. Yan Gao (National Autonomas University of Mexico)
82. Prof. Dr. Ir. Djagal Wiseso Marseno, M.Agr(Gadjah Mada University)
83. Prof. Dr. Ir. Nuhfil Hanani AR MS (Brawijaya University)
84. Prof. Tati S. Subahar (Bandung Institute of Technology)
85. Dr. Devi N. Choesin (Bandung Institute of Technology)
86. Prof. Hariadi Kartodiharjo (IPB)
87. Dr. Adhy Prayitno (Riau University)
88. Prof. Dr. Julianto (UI)
89. Dr. Ici Pieter Kulu (CIMTROP)
90. CIMTROP UPR (1 person)
91. PSB LPPM UR (1 person)
92. Prof. Sulmin Gumiri (Head of International Relations, University of Palangka Raya)
93. Prof.Salampak Dohong (Vice Rektor I, University of Palangka Raya)
94. Prof. Iskhaq Iskandar (Sriwijaya University)

95. Prof. Dr. Rujito Agus Suwignyo, M.Agr (Sriwijaya University)

Society/Alliances

- 96. Prof. Jack Rieley (International Peatland Society)
- 97. Prof. Susan Page (International Peatland Society)
- 98. Prof. Gerald Schmilewski (International Peatland Society)
- 99. Susan Warnecke (International Peatland Society)
- 100. Dipl.-Geogr. Bernd Hofer (International Peatland Society)
- 101. Representatives from Global Peatland Initiatives-GPI
- 102. Marcel Silvius (Country Representative at Global Green Growth Institute, Indonesia)
- 103. Dr. Wim Giesen (FAO Consultant)
- 104. Prof. Dr. Mitsuru Osaki (Japan Peatland Society/Hokkaido University)
- 105. Prof. Kosuke Mizuno (Research Institute for Humanity and Nature)
- 106. Prof. Supiandi Sabiham (Peat Society of Indonesia-HGI)
- 107. Peat Society of Indonesia-HGI (1 person)
- 108. Dr. Laura Graham (Borneo Orang Utan Survival Foundation, Bogor)
- 109. Representatives from APhi

UN Bodies and UN Program

- 110. FAO (1 person)
- 111. UNEP (1 person)
- 112. UNDP (1 person)

Others Interest partners

- 113. Dr. Vähäkuopus Tuija (Geological Survey of Finland)
- 114. Dr. Jukka Turunen (Geological Survey of Finland)
- 115. Hiroyuki Hasegawa (GeoNet Japan)
- 116. Dr. Hirose Kazuyo (Japan Space System)
- 117. Dr. Lip Khoon Koh (Malaysian Oil Palm Board)
- 118. Dr. Stephen Hagen (Applied Geosolutions)
- 119. Dr. Tsuyoshi Kato (Wana Subur Lestari)
- 120. Yohei Hamada (Midori Engineering Inc)

Activities and Agendas

The main activities are to discuss also develop a network which connect people within the forestry sector, and where multistakeholder, multidimensional debates can flourish; at around 5 areas: 1) Promoting International Tropical Peatland Center – ITPC; 2) Integrating monitoring system in tropical peatland; 3) International committee for technical consultation; 4) Integrating restoration model based on KHG (peatland hydrological unit); 5) determining a research needs and scientific and information gaps and promoting capacity building, as agenda on the table below.

The side activities may be series of visits, among others is field visit to Meranti Island, Riau Province, including Lukun Village, Tanjung Sari Village, and Sei Tohor Village. The field visit may have to sharing experiences the success tropical peatland management.

Time	Agenda	Speakers/ Chair/Facilitator
Day 1, 12 November 2018 : Tropical Peatland Roundtable in Batam		
<i>Topics of I and II: Promoting the International Peatland Research Center (ITPC) and International committee for Technical Consultation</i>		
09.00-10.00	A. Opening Remarks <ul style="list-style-type: none"> • Forest & Environment Research, Development and Innovation Agency (FOERDIA) • Peatland Restoration Agency (BRG) • International Peatland Society (IPS) • Head of Meranti Island District 	<u>Speakers:</u> <ul style="list-style-type: none"> • Dr. Agus Justianto • Ir Nazir Foead, M.Sc. • Prof. Gerald Schmilewski • Drs. Irwan Nasir, M.Si
10.00-10.15	<i>Coffee Break</i>	
10.15-12.15	B. Roundtable Discussion Topic I : Promoting the International Tropical Peatland Center (ITPC) <i>This session is aimed to promote the "International Tropical Peatland Center" (ITPC)</i> Below are some aspects included: a. Scope of work on the ITPC b. Organizational Setting c. Operational Management <i>The expected deliverable of this session could be: Committed contribution by partners who involved at the meeting to implement of the International Tropical Peatland Center's strategic plan</i>	<u>Speakers:</u> Dr. Kirsfianti Ginoga Prof. Jack Rieley Prof. Supiandi Sabiham <u>Chair Person:</u> Dr. Bambang Setiadi
12.15-13.30	Lunch Break	
13.30-15.30	Topic II : Establishment of organizing an "International Committee for Technical Consultation" <i>This session is aimed to perform International committee for Technical Consultation</i> Below are some aspects may be included: a. Member of the committee b. Standard Operational Procedure (SOP) of technical consultation c. Guideline in responding emerging issues on responsible peatland management <i>The expected deliverable of this session could be: the international committee for technical consultation, components of SOP for technical consultation, and guideline to respond emerging issues</i>	<u>Speakers:</u> Prof. Susan Page Prof. Azwar Maas Prof. Mitsuru Osaki Dr. Marcel Silvius <u>Chair Person:</u> Dr. Alue Dohong

Time	Agenda	Speakers/ Chair/Facilitator
	<i>and research needs; and thereafter an agreement on how to further develop the SOP and guideline in appropriate time.</i>	
15.30 – 15.45	Coffee Break	
15.45 – 17.00	Concluding Session of Topic I and II	
Day 2, 13 November 2018 Tropical Peatland Roundtable in Batam Topics of III and IV: Reporting and discussing progress on the development of an "Integrated Monitoring System" Discussing a "Integrated Model Project" for responsible peatland management based on KHG (peatland hydrological unit)		
09.00 – 10.30	<p>Topics III : Reporting and discussing progress on the development of an "Integrated Monitoring System"</p> <p><i>This session is aimed to gather overviews from work of participants considered as reporting and discussing progress on the development of an "Integrated Monitoring System"</i></p> <p>Some aspects may be included, as follow:</p> <ol style="list-style-type: none"> Monitoring water tables (water table mapping) Fire detection and prediction model Monitoring on land subsidence, land moving, biomass changing (Sentinel, PARSA, INSAR, Photogrammetry) Carbon flux and accounting system <p><i>The expected deliverable of this session is: a new proposal for restoration of tropical peatlands in order to develop an "Integrated Monitoring System", which may align with the objective of the International Tropical Peatland Center" (ITPC)</i></p>	<p><u>Speakers:</u> Dr. Budi Wardhana Dr. Albertus Sulaiman Prof. Asc. Osamu Kozan Dr. Haruni Krisnawati Prof. Dirk Haufman</p> <p><u>Chair Person:</u> Prof. Mitsuru Osaki</p>
10.30-10.45	Coffee break	
10.45-12.15	<p>Topic IV: Establishment of a "Model Project" for responsible peatland management</p> <p><i>This session is aimed to develop work-plan for a model "Model Project" for responsible peatland management</i></p> <p>Based on the objective of the Roundtable Meeting aforementioned, it is essential to discuss the possibility of expanding research for restoration of tropical peatland by acknowledging the scientific gaps of work in progress; as well as the benefits of the restoration for the global interest and how it returns to the local communities (for poverty alleviation and climate change mitigation for instance); and how it is accountable towards achieving SDG goals and be part of SDGs mechanism by taking into account the natural capitals.</p> <p><i>The expected deliverable of this session is: a new proposal/plan for restoration of tropical peatlands as well as strengthening peat restoration measures for the global and the local</i></p>	<p><u>Speakers:</u> Ir. Karliansyah Dr. Haris Gunawan Prof. Kosuke Mizuno Dr. Enos Rumansara Dr. Wim Giesen</p> <p><u>Chair Person:</u> Dr. Laura Graham</p>
12.15-13.15	Lunch Break	

13.15-15.15	Discussion about developing a book entitled: 1. Vulnerability and Transformability of Indonesian Peatland	Prof. Kosuke Mizuno, Dr. Haris Gunawan, Prof. Azwar Maas, Prof. Ashaluddin Jalil
	2. Tropical Peatland Management	Prof. Mitsuru Osaki, Prof. Jack Rieley, Dr. Haris Gunawan
15.15-15.30	Coffee Break	
15.30-16.00	Concluding Session of Topic II and III	
16.00-16.15	Summary	
16.15-16.30	Participants choose the site as offered in agenda for Day 4	
16.30 - end	City Tour Agenda and Dinner	
DAY 3 – 5, 14-16 November 2018 FIELD TRIP : MERANTI ISLAND, RIAU PROVINCE		
Day 3, 14 November 2018 : Travel from Batam to Selat Panjang/Meranti Island		
08.00-12.30	Travel from Batam to Selat Panjang	
12.30-15.30	Lunch and Welcome Party by District Head of Kepulauan Meranti	
15.30-end	Check in Hotel Grand Meranti	
	Spending over night in Selat Panjang	
Day 4, 15 November 2018 Field Observation: Desa Lukun, Desa Tanjung Sari, and Desa Sei Tohor		
08.00-09.00	Site visit to plots of canal blockings, wells, paludiculture <i>This field trip is aimed to show some pilots of the Peatland Restoration Agency in working with rewetting, revegetation, and revitalization and to gather insights for improvement.</i>	PIC: Dr. Adhy Prayitno and Research Team of University Riau.
	The pilots can be chosen: a. In Desa Lukun, a pilot of Sago Plantations, canal blockings, local fish cultivation b. In Desa Tanjung Sari, a pilot of honey bee cultivation, canal blocking, coffee, and coconuts c. In Desa Sei Tohor, canal blockings, sago plantations, and sago mills	
	<i>Committee will provide a map presenting the landscape adjacent to the sites, in order to facilitate the discussion from improvement.</i> Trip Field to chosen site	
09.00-11.30	Site observation	
11.30-12.30	Discussion for improvement of the sites and ideas arisen	
12.30-13.30	Lunch and break at field	
13.30-15.00	Trip back to Selat Panjang	
15.00-15.45	Rest and coffee break	
	Simple presentation form each group (based on sites. Group A: Lukun, Group B=Tanjung Sari, Group C: Tanjung Tohor)	
Day 5, 16 November 2018: Travel back to Batam-Jakarta		
08.00-13.00	Trip from Selat Panjang to Jakarta	
13.00-18.25	Flight from Batam to Jakarta by Garuda	
	<i>[13.00-14.50 (anyone who would like to take this flight shall leave earlier than 08.00) OR 16.35-18.25 (anyone who would like to take this flight could leave later than 08.00)</i> Agreement on this schedule is deserved for practicality of field arrangement.	

Contact Person

For further information or inquiries, kindly don't hesitate to contact:

Accommodation, facilities, travel, and arrangements:

- BRG: Ms. Anindytha, HP +62-81316500305 email: anin.anindytha@gmail.com
- FOERDIA: Ms. Mujiyati, HP +62-81288641189 email: tatimujiyati27@gmail.com

Topics and contents of discussions:

- FOERDIA: Dr. Hesti Lestari Tata, email: hl.tata@gmail.com, or Dr. Yayuk Siswiyanti, email: yayuksiswiyantiharis@gmail.com
- BRG: Ir. C. Nugroho Priyono, M.Sc. Email: c.nugroho.sp@brg.go.id