



Annual Report 2024

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President's Message

Dear Friends,

It was an exciting year for PM.Haze. In 2024, we not only continued our essential work in peatland restoration but also expanded our outreach and education efforts, deepening our impact on the ground, reaching new audiences, and empowering the next generation of environmental stewards.

One of our biggest highlights was the success of the Re.Peat 2024 expedition. This flagship programme brought together 20 passionate youths from Singapore, Malaysia, and Indonesia, giving them hands-on learning experiences about the connections between peatland degradation, haze pollution, and climate change. Many of these youth leaders have gone on to share their experience with their communities, through various events and activities such as Haze-Free Horizons.

Our peatland restoration efforts made great strides this year. In 2024, we restored 7.88 hectares of degraded peatlands, built four canal blocks, cultivated nearly 12,000 seedlings, and planted over 8,000 trees. We also enhanced our ecological and social monitoring to ensure our restoration initiatives remain effective. In partnership with the Rotary Club of Singapore, we also introduced the use of drones in fire management. This has equipped the local community in Sungai Tohor with the means to locate hotspots and effectively manage the spread of fires.

None of this would have been possible without support from our staff, partners and coordinators on the ground. From our managers, Yee Ching and Beatrice, to the hands-on efforts of Azhari Ahmad, and our collaborations with frontline partners EKA and YNKI, each of them has played a crucial role in advancing our shared goals.

Looking ahead to 2025, we will need to keep this momentum. To do so, it is essential that we secure adequate funding, which is not only essential for maintaining our current initiatives but also a testament to the importance of our work. Through grant-writing workshops, our frontline partners have also begun to apply for grants on their own, as we gradually move them towards independence and self-reliance.

We remain optimistic that with continued support, we can ensure the longevity and impact of our peatland restoration efforts and strengthen our outreach and capacity-building programs. Thank you for being a part of this journey and we look forward to more years ahead.

Low Ying Hui
President



PM Haze's Vision and Mission

We envision a world where everyone feels responsible for the clean air that we all enjoy.

Our mission is to drive a global movement to stop the haze by empowering communities with the knowledge and means, and steering consumption towards sustainable options.

About PM Haze

PM Haze is a not-for-profit society registered in Singapore with charity status.

Unique Entity Number (UEN): T16SS0125L

Registered address: 8 Kitchener Link, #19-15, Singapore 207226

Governing Board

Name	Designation	Date of Appointment
Low Ying Hui	President	26 Mar 2024
Low Ching Chieh	Treasurer	26 Mar 2024
Yang Yang	Secretary	26 Mar 2024
Zhang Wen	Director at Large	26 Mar 2024
Maznah Masop	Director at Large	26 Mar 2024

President

- Chair all General, Governing Board and Advisory Council meetings.
- Represent the Society in its dealings with external parties.
- Ensure the execution of all resolutions of the General Meetings.
- Develop effective and purposeful partnerships for fundraising and advocacy initiatives.
- Implement good governance structures and planning strategic direction for the society.

Secretary

- Keep all records, except financial, of the Society and shall be responsible for their correctness.
- Keep minutes of all General, Governing Board and Advisory Council meetings.
- Keep an up-to-date Register of Members at all times.



Treasurer

- Keep all funds and collect and disburse all monies on behalf of the Society, in accordance with the Governing Board's directions.
- Keep an account of all monetary transactions by the Society and be responsible for their correctness.
- Ensure all returns and documents pertaining to the accounts and taxation are duly prepared for submission as required by law and within the time prescribed.
- Ensure that policies and procedures laid out in the Society's Finance Code of Practice are adhered to.
- Will be required to audit each year's accounts before it is presented during the AGM.

The Terms of Reference for the Board can be provided upon request.

Memberships

We operate a by-invitation-only membership structure where we involve people from Singapore that are passionate about solving the transboundary haze and can contribute their capacities and capabilities towards our cause.



2024 Year in Review

1. Staffing

As of 31 December 2024, there was one person under full-time contract who managed the Peatland Restoration Programme and one person under one-year contract who managed Outreach events and Partnerships for the Society. We also have a Programme Coordinator, assisting in the implementation of our Peatland Restoration Programme. Our volunteer board consisted of 4 members who took care of both governance duties as well as actively carried out duties with regards to the Society's programmes and activities. In addition, we engaged volunteer advocates and skill-based volunteers to help in the implementation of both our outreach and peatland related programmes. Our deepest appreciation to all who have contributed to our programmes.

This year, we continued working with Ms. Chong Yee Ching as programme manager to manage our overseas transboundary haze prevention programmes. Yee Ching has been overseeing the implementation of the project and ensuring the timely delivery of all outputs. She also communicates with and manages the team on the ground through an Indonesian programme coordinator. She will continue supporting the development of a scalable peatland restoration model for communities and enlist the advice of the programme's advisors in matters of ecological restoration.

Starting 2024, Ms. Beatrice Baquero-Salah also joined us as our Outreach and Partnerships manager to strengthen our educational mission in Singapore and abroad. She partnered with organizations like SusGain, the Sustainable Singapore Gallery, and other local NGOs to deliver unique projects combining art, education and experiential learning. RE.Peat 2024 and Haze-Free Horizons were conceptualized and executed by Ms Beatrice, and engaged around 1800 youths. She will continue positioning RE.Peat expeditions as PM.Haze's flagship regional expedition programme for youths, ensuring more sustainability enthusiasts have accessible opportunities to learn about peatlands, haze and climate change issues.

We continue to work closely with our Programme Coordinator, Mr. Azhari Ahmad. He has been the bridge between PM Haze and the Sungai Tohor community. He works closely with our community partner, Ekonomi Kreatif Andalan, consulting them on our restoration plans with them, and ensuring the timely and successful implementation of the ecological restoration and community development objectives on the ground.

Special mention to our volunteer Lisa, who has single-handedly modernised and implemented improvements to our website, and our intern Li Yang in supporting our team in our projects.

This could not have achieved all this without the hard work and efforts put in by all staff members, volunteers and interns of PM Haze. We look forward to further opportunities to work with diverse and talented individuals.



2. Outreach and Education

This year, we continued our community outreach while **expanding our thematic scope to better draw links between the haze crisis and the climate crisis, and other regional environmental issues** that are also supply chain and consumption driven. We were invited to present our work to different audiences and held booths at important local events like the Conscious Festival and the Sustainable Christmas Market.

Youth empowerment continues to be one of our main priorities, seeing as youths are increasingly interested in sustainability yet lack accessible opportunities to learn about the complexities of the issues. Most programs offered nowadays are brief, provide limited perspectives, or are expensive and thus inaccessible to many. This disconnect hinders a deeper understanding and empathy needed to address the complexities of sustainability in real-world contexts.

Building off our past expeditions to the Air Hitam forest reserve in 2016 and 2019 (PEEP), we decided to scale them up, and RE.Peat was born. Recognizing the need for interregional collaboration to solve a transboundary crisis, **RE.Peat 2024** was the first multi-country and multi-stakeholder expedition programme for youths in the ASEAN region, starting with Indonesia, Malaysia, and Singapore. For this first iteration, we received 173 applications. After a careful selection process, the 10-day program eventually brought together 20 youths, and served as a learning platform for them to explore the interconnections between climate change, haze pollution, and sustainable agriculture.

We organized a set of panels as part of RE.Peat 2024, and launched new workshop offerings for the public as part of **Haze-Free Horizons**, a project supported by the SG Eco Fund. The outcomes of these main programmes showed us that there is indeed a growing interest in topics like nature-based solutions, environmental policymaking and governance in Singapore.

Finally, social media has been a key outreach tool. This year, we documented and increased the visibility and transparency of our collaborative work with our partners through @ProtectOurPeatlands account and starting two Instagram series: *Grassroots* and *From Ashes to Action*.



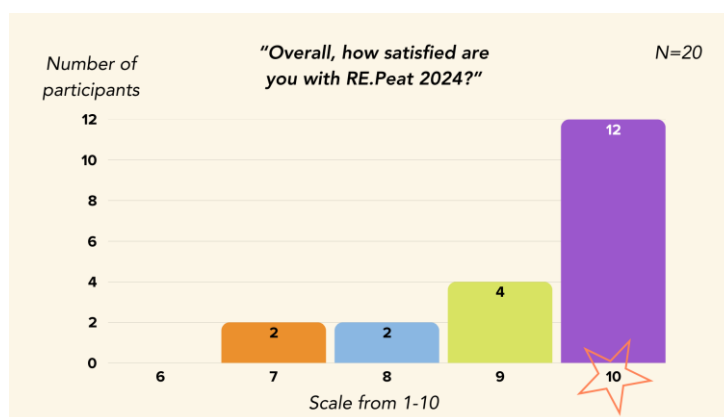
Panels organized for RE.Peat 2024



2.1 Youth Expeditions: RE.Peat 2024

As our first regional expedition, *RE.Peat 2024* enabled **20 youths from Indonesia, Malaysia and Singapore** to learn about the regional dynamics and solutions to solve the haze crisis in Southeast Asia, while exploring other interconnected environmental topics. Our final anonymous survey showed that **90% of the participants either strongly agreed (60%) or agreed (30%) that the programme increased their skills needed to be part of the solutions.**

We received positive feedback from all partners involved and hope to collaborate with them again in coming years. Participants also reported high levels of satisfaction with the programme with 100% rating it >7/10, including over 60% rating it 10/10.



Around 66% of participants had not heard of the term “nature-based solutions” before joining the programme and their familiarity with forest restoration processes and practices was low. During this expedition, participants learned from local experts and practitioners, from academics to indigenous local communities about sustainability practices that support people and the planet. They completed a tree-planting activity, planting around 30 native trees in the Raja Musa Forest Reserve in Selangor, thus directly supporting the Global Environment Center’s peatland restoration efforts. They also visited large palm oil plantations and smallholder plantations, to compare sustainability practices and the challenges faced by the palm oil industry and its supply chains. This was also accompanied by a morning of sessions with the Roundtable for Sustainable Palm oil (RSPO) certification where they also explored the role of individual action and the need for more accountability and transparency within the business sector. By providing this ground-level exposure and raising awareness about the responsibilities and roles that youths can play to conserve and protect peat swamp forests, **the cohort will move on to become active forest stewards.**

By bringing together a group of young talented leaders from across the region for an experiential learning trip, we created meaningful spaces for collaboration, kinship, and intercultural exchange motivated by a common desire to solve a transboundary problem. The participants have stayed connected even after the 10-day expedition, started pursuing new passions related to sustainability, and directly engaged their community to share the knowledge they gained during this expedition. They understood that while challenges might be local, they require concerted regional efforts.



Photos from RE.Peat 2024

Other outcomes in pictures:



Abu (Singapore) holding the sticker sheet she designed with Alifya (Malaysia) that was given out to the public at the PM.Haze booth during the Sustainable Christmas Market in November. The stickers represented animals found in tropical peatlands. Although biodiversity was not covered during the expedition, they did additional research on the topic.

Fireside Chat “Becoming Environmental Stewards: Perspectives from Singaporean Youths” during the launch of our Haze-Free Horizons exhibition, joined by two RE.Peat participants as panelists, Sai and Debby (Singapore), and Maria Rosa (Malaysia) as a photographer.



TESTIMONIALS

Anonymous testimonials collected in our final survey:

1. *"My biggest knowledge takeaway from this program is the intricate connection between peatland conservation and climate regulation. I've learned how vital peatlands are for carbon storage and how their degradation contributes significantly to greenhouse gas emissions. Understanding the sustainable practices and restoration techniques required to preserve these ecosystems has been invaluable, as has the insight into the socio-economic challenges and opportunities in the palm oil industry."*
2. *"Understanding of the root causes of haze and the pivotal role that community-led peatland restoration plays in addressing this issue. Learning how grassroots efforts can significantly impact environmental conservation has been both enlightening and inspiring."*

Reflection from Alex (Singapore):

"One of the most memorable learning points for me was the insight shared by Mr. Dennis and Mr. Heng. As a newcomer to the field of climate change, I have struggled with confidence in my abilities and how I can contribute to the cause. Listening to them helped me realize that the focus should not be on whether my contributions are sufficient, but rather on how I can contribute within my capacity. Mr. Heng mentioned, "It's not a race but a marathon," which taught me that effective change requires time, patience, and effort. He also advised us to take breaks when things get tough and let others lead, returning when we are ready. Their guidance helped shape my mindset and gave me the motivation to strive harder to contribute to the cause."

More testimonial videos can be found in our [Youtube channel](#)

Full Expedition video: <https://youtu.be/WHJ-X8krxMI?feature=shared>

Overall, RE.Peat 2024 successfully and significantly increased the motivation, skills, and employability of the 20 participants and managed to reach a wide audience in the months that followed. The impacts of the kinship forged are unquantifiable and it is our hope that the group's growing interest in environmental issues will have long-lasting benefits for the region.

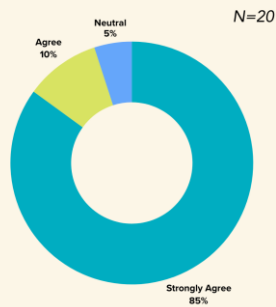
This programme was made possible thanks to our partners and collaborators including the Global Environment Center (GEC), Wild Asia, Universiti Malaya, and the Roundtable for Sustainable Palm Oil (RSPO), and was powered by the National Youth Council of Singapore.



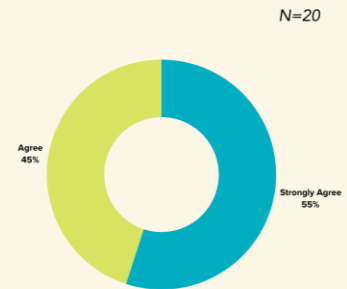
More results from our anonymous survey:

Feedback & Outcomes

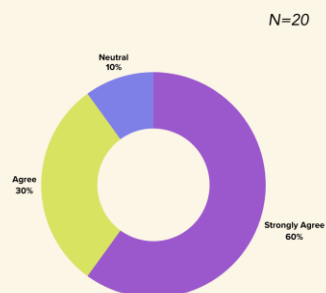
"My understanding of peatlands and peatland restoration/ rehabilitation improved"



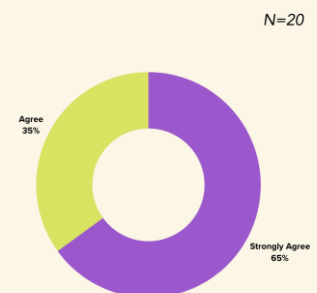
"Overall, my knowledge on the key themes of peatlands, transboundary haze, and sustainable agriculture has improved with this programme"



"Overall, the programme has increased the skills that I might need to be part of the solution"



"I feel more motivated to participate in causes/ work that contribute towards reducing transboundary haze"



2.2 Talks and Workshops

A total of 12 talks/workshops were organised for this year and the team took part in 4 community initiatives which included the Haze-Free Horizons Exhibition and other roadshows.



(left) Calendar of events for Haze-Free Horizons project. (right) Booth at Newcastle University in Singapore for the Post COP 28 panel discussion

Haze-Free Horizons

Haze-Free Horizons (HFH) was a multimedia platform composed of a 3-week long physical exhibition and a series of three workshops open to the public. As haze has not been seen and felt in Singapore for some years, we wanted to affirm Singaporeans' collective memory and experiences with haze pollution, while raising awareness of the issues that the region still experiences, even though they may seem invisible. More importantly, as the title suggests, HFH was a project meant to inspire long-term action, imagining cleaner futures, and ideating solutions collectively for transboundary issues. We included an open call for art to encourage youths to submit artworks with their visions of a haze-free future that were later displayed at the gallery for the entire duration of our exhibition.

The HFH exhibition was open to the public from 4th to 23rd December 2024 and was visited by 4707 visitors on-site. It included large box displays with educational infographics and activities that the public could interact with (question cards, sticky note walls, and QR code responses), photos from our visit to peatland forests, and artworks by youths. During our open call for art, we received 8 high-quality submissions from youths including 4 Singaporeans, 1 Malaysian and 1 Indonesian. Due to logistics and the space availability at the Gallery, we managed to showcase 2 digital artworks and 5 paintings from all 6 artists.

During our launch event, we hosted around 20 people in the Gallery and collaborated with the Roundtable for Sustainable Palm oil (RSPO) to share more about our individual work in sustainability and haze-free peatland management. We also organized a fireside chat with 3 youth panelists titled "Becoming Environmental Stewards: perspectives from Singaporean Youths". On 22nd December, we were joined by 9 members of the public on our exclusive Tour of the exhibition which also included a guided visit to the SSG.





Photo of one section of the HFH Exhibition at the Sustainable Singapore Gallery displaying RE.Peat participants' projects, videos, and information about the expedition.

Regarding the workshops, as it was our first time collaborating with other organizations to lead these new workshops conceptualized by PM.Haze, we took this opportunity to see what audience and profiles would be interested in the topics covered and gather feedback (ref. Documentation tab for feedback collected). In total, 45 people attended our workshops, with people ages 18 to 71 with the average being 33 years old having signed-up. Our second workshop on Environmental Policymaking in SEA was the most popular with 18 people attending, followed by the Haze governance & ASEAN simulation with 17, and finally the Climate Fresk workshop with 10 people (although we had less time to promote the latter, we still managed to fill 2 tables, which was our goal!)

We hope to run future iterations of the workshops again, seeing the positive feedback received and the intergenerational turnout which encouraged networking between youths and working professionals, and inspiring new sustainability enthusiasts. This project was made possible thanks to the SG Eco Fund.



Group Photos of HFH Workshops

Calendar of Events

Workshops & Talks

Date	Event Name	Organisation	Delivered by	Attendance
15-18 February 2024	YSEALI Environmental Summit	YSEALI	Yee Ching	50
8 April 2024	National University of Singapore Environmental Studies Module ENV4101	NUS	Beatrice, Yee Ching	40
4-6 June 2024	Asia-Pacific Digital Transformation Summit	Infoxchange	Yee Ching	35
20 July 2024	RE.Peat Online Panels (x3)	PM.Haze	Beatrice	50
26 September 2024	Unlocking the Power of Fire Data: Monitoring Active Fires and Understanding Historical Trends	Global Forest Watch	Yee Ching	100
14 November 2024	National University of Singapore Environmental Studies Module ENV1101	NUS	Yee Ching	40
4 December 2024	HFH Exhibition Launch Event, including Fireside Chat: "Becoming Environmental Stewards: Perspectives from Singaporean Youths"	PM.Haze	Beatrice	20
7 December 2024	Haze Free Horizons Workshop #1: Haze x Climate Fresk	PMH x Climate Fresk	Beatrice	10
14 December 2024	Haze Free Horizons Workshop #2: Environmental Policymaking in Southeast Asia: Definitions, Tools and Challenges	PMH x MAJU: Youth Policy Initiative	Beatrice	18
19 December 2024	Haze Free Horizons Workshop #3: Simulation! Haze Governance and ASEAN negotiation process	PMH	Beatrice and Benjamin	17



Community Events

Date	Event Name	Organisation	Delivered by	Estimated Engagement
29 February 2024	Post COP 28 panel discussion: "How can Singapore Help Energise the Transition to a Cleaner, Greener and More Sustainable Future?" (Booth)	The Centre for Sustainable Development (CSD) and the Sustainability Professionals ASEAN Network (SPAN)	Yee Ching and Beatrice	10
31 May - 2nd June 2024	Conscious Festival (Booth)	Green in the New Black	Beatrice, Yee Ching and Benjamin	30
16-17 November 2024	Sustainable Christmas Market (Booth)	Peace of Art	Beatrice, Liyang, Yee Ching	40
3-24th December 2024	Haze Free Horizons Exhibition, including launch event and Public Tour	PMH x Sustainable Singapore Gallery	Beatrice and Liyang	250 (4707 visitors estimated)

2.3 Social Media Engagement

This year we focused on amplifying our ground-level work, public events, and team efforts both in Singapore and Indonesia. We gained over 800 new followers through our two main Instagram accounts combined, [PM.Haze](#) and [ProtectOurPeatlands](#), the latter tripling in number of followers.

Throughout the year, we used social media to promote our activities and new programmes like RE.Peat. We shared an "expression of interest" form to gather input from potential applicants and ran the call for applications through our Instagram accounts (supported by other universities and institutions who helped spread the word). Post-expedition insights, testimonial videos and even an info session with this year's participants were also shared.

Haze-Free Horizons included a month-long calendar of events and part of the collaborative nature of the exhibition was to include youth artworks. The Call for Art submissions were also shared through our social media and ads were used to promote our exhibition launch event, public tour, and workshops.





Lastly, we started two Instagram series to document and share the social and ecological impact of our peatland restoration work.

1. *Grassroots*: a series documenting the process of peatland restoration, from deciding where to plant to the maintenance and monitoring of the work, as well as the challenges faced by communities such as floods.
2. *From Ashes to Action*: a series sharing insights from our drone monitoring programme and firefighting efforts. The ins and out of fire mitigation and disaster risk

We look forward to strengthening our social media presence and continue sharing our collective achievements with partners on the ground. We thank our volunteers and team members for their support with social media strategy, branding and marketing.

3. Peatland Restoration Programme

The peatland programme is an ongoing effort to restore burnt peatland through the cooperation and involvement of Indonesian peatland communities and financial support from donors to PM Haze. In 2024, we have 3 main village partners: Sungai Tohor, Permata Jaya, and Permata. We also continued our partnership with local Indonesian NGOs, EKA in Riau and YNKI in West Kalimantan. This year, beyond continuing our primary peatland restoration and alternative livelihood activities, including rewetting and revegetation, capacity building, and outreach, we have expanded activities to also include the following themes:

- Expanding into tackling fire management
- Establishing new and improving current ecological and social impact monitoring frameworks
- Initiating organisational capacity building-themed workshops

3.1 Peatland Restoration

Since 2020, we have been working with the Sungaitohor-based NGO, Ekonomi Kreatif Andalan, or EKA, and have steadily increased peatland restoration targets in sapling cultivation, tree planting, community engagement, and capacity building at Sungai Tohor and Sungai Tohor Barat. In 2023, we also started working with two villages, Permata Jaya (through the Pontianak-based NGO, Natural Kapital Foundation, or YNKI) and Permata, located in Kubu Raya Regency in West Kalimantan.

In 2024, we restored 7.88-ha of degraded peatlands, built 4 canal blocks, cultivated 11,952 seedlings, and planted 8,075 in degraded peatland areas. Remaining seedlings cultivated were distributed to the community to plant in their own land. This brings us to a total of 32.88-ha of degraded peatlands with 18 canal blocks constructed and 30,248 trees planted since 2019.

Project Year	2019-20	2020-21	2021-22	2022-23	2023-24	2024	Total
Number of restoration plots managed	1	2	2	3	6	5	5
Total size of restoration sites managed (ha)	3.7	6	8.4	15	25	32.88	32.88
Number of seedlings cultivated	0	7,670	15,878	10,000	28,852	11,952	74,352
Number of saplings planted in restoration sites	0	7,670	3,500	8,595	2,338	8,145	30,248



Number of canal blocks built	0	4	3	3	4	4	18
Number of trainings and events conducted	0	6	8	6	7	4	31

Table showing steady progress and expansion of the peatland programme from 2019 to 2024.

3.2 Improvements in ecological and social monitoring methods

In collaboration with EKA, we developed a community-accessible system to monitor and measure the social and ecological impacts of our programme to date. The following activities highlight our approach:

- Mapping of Restoration Sites and Infrastructure

After an initial mapping attempt in April 2024, we discovered that EKA's handheld GPS was non-functional. We then tested several mobile applications before selecting two that are both user-friendly and capable of visualizing mapping points effectively and trained EKA to use them in September 2024. These low-cost or free applications can be easily adopted by other peatland communities with basic training, making the monitoring process more accessible and scalable.



Screenshots of the mapped restoration sites that we have been planting at in 2024.

- Establishment of Ecological Sample Plots

At each restoration site, two 10-metre by 10-metre sample plots were set up in ecologically distinct areas in April 2024. Within each plot, we conducted an inventory of all live, non-seedling trees, recording species, count, circumference, and estimated height. Additionally, canopy cover will be visually assessed at regular intervals. This process will be repeated annually to track tree growth and ecosystem recovery under varying peatland conditions.



(Left) EKA members collecting data from the sample plots. (Right) EKA member labelling the trees in the sample plots.

● Visual Monitoring of Sites

Visual assessments are conducted both at ground level and from aerial perspectives using drones. Over time, these images will provide a clearer visual record of ecological changes driven by our interventions, offering insights into the effectiveness of restoration efforts. Training for this occurred in September 2024.



Aerial view/ drone photos of a planted site taken 4 months apart (September 2024, left, and February 2025, right) shows progress of canopy cover change over time.

● Seedling Survival Tracking at Nurseries

Previously, survival rates in nurseries were primarily estimated without a standardized tracking method. To address this, we collaborated with EKA to develop a simple, consistent template for recording seedling survival and replacement rates. The entire process, from development and field testing to finalizing the design, took place between September and November 2024. This system enables more accurate monitoring and helps identify species that may be sensitive to shade or flooding. The insights gained will inform future interventions, improve nursery care practices, and enhance the overall effectiveness of our restoration and conservation efforts.

(BAHASA INDONESIA)					LOCATION : Nursery II & III										
Nomor pembibitan (Bingkisan): 3.2 (diibarkan tahun 2022, dipertahai tahun 2024) / 3.3 (diibarkan tahun 2024)					Juni 2024		5-Sep-24		8-Sep-24		10-Nov-24				
		Tanggal mulai	Tanggal pengukuran			Hidup		Mati		Bibit Ganti		Hidup		Mati	
Tanggal		5 September 2024													
Jenis	Jumlah bibit HIDUP	Jumlah bibit yang MATI	Jumlah bibit yang MATI	Jumlah bibit yang MATI											
Kelat	2100	532			2100	0	1778	322	200	1958	20				
Sebasah	1065	46			1065	0	1019	46	52	1071	0				
Suntai	650	5			650	0	645	5	0	638	7				
Sentul	575	78			575	0	497	78	0	497	0				
Medang Lundu	1040	424			1040	0	616	424	340	947	9				
Malas	570	155			570	0	415	155	30	435	10				
Tenggek Burung					0	0	0	0	340	334	6				
Mahang					0	0	0	0	120	120	0				
Medang Pergam					0	0	0	0	0	0	0				
Jumlah					6000	0	4970	1030	1082	6000	52				

Original nursery survival data table (above) implemented in September 2024, and the new updated version (below).

● Community Awareness Survey

This year, we introduced a Google Forms-based survey to improve visibility and comparison of respondent responses. The survey has been redesigned and streamlined to measure three key indicators: knowledge of peatlands, sustainable peatland management practices, and community support for the programme. This was implemented in December 2024.

Response from community participants

The EKA team demonstrated strong enthusiasm throughout the monitoring workshops. Although they had previously been introduced to ecological monitoring methods by visiting researchers, they expressed that they had not fully understood the significance of the measurements taken or how the data could be used effectively. Additionally, the results of past data analyses were never communicated back to them, limiting their understanding of the value and potential application of the data collected.

The introduction of digital platforms, such as Google Forms, for social data collection was particularly well-received. The team found the process more efficient and appreciated how quickly responses could be compiled and analyzed. Throughout this process, the PMH team made a conscious effort to explain the purpose of each measurement and the objectives behind the monitoring activities.

At the end of the project year (ending in March 2025), PMH will analyze the data collected and present the findings to the EKA team, allowing them to fully appreciate the value of the information gathered while generating discussion on how the programme may be improved. In addition, we are introducing grant writing to help the team better understand how to communicate and visualize their impact (elaborated in the section below, under “Organisational capacity building”). This skill will empower them to engage with various stakeholders more effectively and seek future support for their initiatives.

3.3 Organisational capacity building

For the longevity and sustainability of the community-led peatland restoration programmes, the community must have the confidence to not just propose ideas, but also innovate and develop the ability to garner support and implement their ideas. This means that the community should have basic understanding of financial literacy, grant sourcing, programme and project

development and implementation. Through a series of workshops, we aim to instill these skill sets into the community management groups that we are working with.

At Sungai Tohor, the EKA team has served as the key coordinator and implementer of the peatland restoration programme for the past five years. During this time, they have successfully honed their project implementation skills, consistently meeting their key performance indicators (KPIs) in a timely manner while receiving positive feedback from participants and supporting workers.

To further support their growth, we have initiated a series of grant writing workshops aimed at developing their capacity in project design and communication. This effort began in August 2024 with a three-day intensive workshop, during which the EKA team developed two test proposals based on project ideas they are eager to implement. These workshops are designed to help them conceptualize, structure, and effectively communicate all aspects of a project, ultimately empowering them to secure future funding and expand their restoration efforts. This series of workshops will continue into the next year, with a focus on hands-on application of the knowledge gained through this introductory workshop.



In addition to capacity-building efforts, PMH has contributed to the start-up costs for EKA's new fruit tree cultivation project, which will generate income for both EKA and women in the Sungai Tohor community. As part of this initiative, PMH provided 1,000 fruit tree saplings and established a nursery within the village. EKA has matched this contribution with 1,000 additional saplings and has also initiated plans for a community outreach event, scheduled for early 2025.

Organisational capacity-building efforts were undertaken in Permata Jaya village by YNKL in response to a key challenge identified during the PY23–24 project implementation. A lack of a dedicated community group had led to limited ownership of peatland restoration activities within the village. After extensive discussions between PMH and YNKL, both organizations agreed to establish a community peat restoration group near the planting site in Permata Jaya. In October 2024, YNKL initiated the group formation process through socialization activities, following the principles of Free, Prior, and Informed Consent (FPIC) to ensure participation and approval from the larger community and the identified members of the restoration group..



FPIC-guided socialisation sessions with the members of the restoration group (left) and the larger community, including the village leaders and representatives from other NGOs and private entities in the landscape (right).

While YNKL had also planned to conduct financial management and progress reporting workshops, these activities have been delayed due to pending consent from the Village Head to officially authorize the formation of the group. As of December 2024, efforts are ongoing to secure the necessary approvals to move forward with capacity-building initiatives and strengthen local ownership of restoration activities.

Involvement of NGOs

PM Haze has been working with EKA since 2018 and they are integral to the longevity and successes of the restoration programme at Sungai Tohor. With their members on the ground, they have been working to carry out the regular planting, monitoring, and maintenance works which contributed to the high sapling survival rate at the restoration sites. Additionally, their connections with the local community and knowledge of local governance structures have enabled PM Haze to smoothly implement community outreach and education activities. They are also crucial in being the pivot in coordinating fire-fighting activities during peat fire occurrences in the village with local villagers and district authorities.

Since 2023, EKA has shown increasing interest in expanding the scope of the peatland restoration programme and taking on greater responsibilities to ensure long-term organisational growth and impact sustainability. In response to this, the workshops conducted in 2024 were specifically designed to incorporate more practical training in programme development and management. These workshops aim to equip the EKA team with the skills needed to design, manage, and scale their initiatives effectively. Additionally, this process will

contribute to the creation of materials and documentation that outline methodologies for tackling this next phase of community development which we will add to our community-led restoration toolkit.

Over at West Kalimantan, PM.Haze partnered up with YNKI to access their vast networks and knowledge about the region. Due to the diverse socio-economic landscape, YNKI has been essential to bridging cultural gaps, and getting community participation and support for the restoration work. Their personnel's forestry, spatial mapping, and community development experience were also used to inform landscape-level programmes at West Kalimantan.

3.4 Drone training for fire management

With the return of El Niño, our village partners have become increasingly anxious about their ability to combat fires, recognizing the heightened risk and the challenges in their firefighting capacity. Thus, with the support from Rotary Club of Singapore, we have also expanded the Sungai Tohor programme to include capacity building for fire management using drones; this is the first step for us to expand the existing programme to a more holistic approach to sustainable peatland management. This 7-month project (lasting from April to November 2024) produced two main outcomes in enhancing firefighting skills of community firefighters and empowering the community to take a more proactive role in firefighting. Specifically, the successes from this project included:

- Producing 2 drone operators who are capable of conducting basic drone training and post-fire surveys.
- Ascertained that drones have the ability to reduce time taken for hotspot verification by 70% or more.
- 54 community firefighters from 10 villagers were trained in basic drone operation through 13 training sessions, which also included community-led discussions in the challenges and opportunities in fire management in the sub-district.
- Establishment of a first draft of fire-relevant data collection protocols for the community.





Group photo at the 2-day drone training session, including members from Rotary Club of Singapore, PM.Haze, expert trainers, and the community firefighters.

Response from community participants

The drone training was overall well-received by the community firefighters. Almost all reaffirmed the need for the training to be continued, so that there are opportunities to hone the skills of the community firefighters. Some villages indicated that a more basic need needs to be addressed, which is the lack of firefighting and safety equipment at even some of the more high fire risk villages. They expressed hope that this project can continue and expand to address these needs as well.



2 EKA members conduct basic drone operation training.

4. Research and Publications

PMH is in the midst of updating its community-based peatland restoration toolkit, documenting key learning points in its implementation of community-based peatland restoration work and providing recommendations for best practices for small NGOs or communities looking to develop their own community-based peatland restoration programmes. It is scheduled to be

available online by the end of April 2025, with 4 large content chapters discussing project objective setting, baseline setting, project implementation, and impact monitoring.

5. Financials

The Society has funds totalling \$162,022.82 for the year ending 31 December 2024. Compared to 2023, this represents a net loss of \$130,800.72. This is attributed to a new headcount for Manager, Outreach and Partnerships, resumption of our flagship outreach project, as well as an increase in ground project costs due to the drone project.

The largest expenditure is project expenses totalling \$132,105, followed by staff salaries totalling \$119,216. The total income from grants is \$140,634, primarily from Singapore Institute of International Affairs with the remainder coming from National Youth Council, Rotary Club of Singapore, Eco SG Fund and other private donors.

In the coming year, the Society aims to ramp up fundraising efforts to cover non-project or core expenditure. The remaining shortfall is expected to be covered by enabling frontline partners to access and apply for grants and enact cost reductions measures to optimise overall ground project costs. Outreach projects moving forward will aim to be 100% funded through multiple grants, thereby having no net impact on our financials.

6. Future Plans

Peatland Restoration Programme

In addition to continue the positive momentum for the communities' move towards sustainable peatland management through the peatland restoration-based activities, we are looking to expand our work in two ways in 2025:

1. Thematic expansion to tackle peatland degradation more holistically, through the lenses of climate resilience

PMH is actively revising its peatland restoration strategy to address peatland degradation more holistically, with a stronger focus on climate resilience and community-based outcomes. Acknowledging the increasing impact of climate risks on the livelihoods of peatland communities, PMH plans to:

- Expand capacity building workshop themes more earnestly at addressing fundamental organisational gaps such as programme development, grant sourcing, and generation of income



- Conduct a disaster risk mapping exercise to refine our restoration strategies. Leverage insights from the mapping to improve peatland restoration efforts and community outreach, aiming to reduce climate-related risks to livelihoods and enhance community resilience.
2. Geographic expansion to include more stakeholders, to tackle issues on a landscape- rather than site-specific level

This approach acknowledges that peatlands are hydrologically connected and must be managed within the larger ecosystem. PMH intends to expand our restoration efforts geographically in two ways:

- We plan to extend our restoration work beyond Sungai Tohor village to address climate risks affecting the wider Tebing Tinggi Timur landscape. Through the disaster risk mapping exercise, we will engage additional communities and key stakeholders across the region, raising awareness about climate-related threats and fostering collaborative solutions.
- In West Kalimantan, we are working to expand our programme to Kalibandung, a neighboring village that has shown strong interest in restoration initiatives. Community members recognize the urgent need for sustainable peatland management and fire prevention and are eager to collaborate. This expansion will allow us to share best practices, strengthen community networks, and develop localized restoration solutions that align with their needs.

