

Outcome Statement



Global Landscapes Forum Peatlands Matter

Jakarta, 18 May 2017

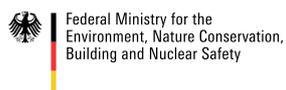
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Introduction

Peatlands are increasingly on the global agenda due to their significance to the environment, economy and public health. Yet, as Director General of CIFOR Peter Holmgren acknowledged in the morning plenary of the Global Landscapes Forum: Peatlands Matter event, peatlands have been important to local peatland-dwelling and peatland-adjacent communities for generations, due to the environmental services and tangible benefits they provide. Today, rapid and extensive conversion of peatlands to agricultural land creates significant burdens across sectors and scales. Sustainable peatland management matters for all the sustainable development goals (SDGs) and the deterioration of tropical peatlands in particular has created a key environmental governance challenge. There is widespread agreement that protection of pristine peatlands is needed, that sustainable peatland management, restoration and rewetting is necessary, and that this will require an integrated, cross-sectoral approach.

“Now, when the attention from the media [on the 2015 peat fires] has all but disappeared, communities continue to struggle with various consequences.”



Peter Holmgren

Director General
CIFOR

Such integrated approaches will necessitate transparent dialogue between stakeholders to negotiate tradeoffs between economic, environmental and social imperatives. Determining the trajectory for sustainable global landscapes, including in carbon-dense peatlands, will demand dialogue across sectors and scales to reconcile diverse priorities and to coordinate efforts and action. Local-level rights, priorities, capacities and concerns must be a part of the discussion. The GLF Peatlands Matter event channeled these diverse perspectives into one forum where multiple stakeholders were able to share, learn and synergize their knowledge, priorities and understandings of peatlands in order to chart complex solutions to peatland management. This outcome statement captures a number of salient areas of agreement that emerged, the challenges that were identified and the opportunities and future focus needs that became apparent throughout the day. Together these insights help to inform a trajectory towards a better model for management that performs economically, environmentally and socially, and that will require that the roles and responsibilities of diverse actors be defined.

“Wildfires are a development issue that undermines virtually all of the SDGs.”



Richard Wecker

Global Health, Emergency
Preparedness and
Response UNICEF Indonesia



Why peatlands matter

Sustainable resource management across global landscapes is crucial for avoiding earth system tipping points and enabling achievement of the sustainable development goals (SDGs). Peatlands exist in at least 180 countries and are a landscape in focus due to their environmental and economic importance—and their rapid degradation. These carbon-dense wetlands suffer particularly high rates of conversion in the tropics to meet global market demand for products such as palm oil and pulp and paper. Conversion of these natural wetlands entails drainage and deforestation and releases disproportionate amounts of carbon in to the atmosphere. Intentional fires used in land clearance and traditional agriculture suffer increased risk of fire escape due to a range of factors, including the ecological shifts of large-scale land drainage, the unclear and contested land rights in Indonesia's peatland frontiers and aggravation by climate

anomalies. Devastating wildfires have become prevalent and result from dominant models of land management. The economic, environmental and social burdens of uncontrollable peat fires, and associated toxic smoke pollution (haze) are significant, accruing across sectors and scales. The challenge of fire suppression and fire management specific to peat systems calls for upfront action to prevent fires through targeting proximate and remote drivers. There is strong sentiment that remaining intact peatlands should be protected, idle fire-prone peatlands brought in to sustainable management and that the rights of local people must be recognized in this process. Yet sustainable peatland management is a complex challenge requiring sound ecological information, coordination at various levels and institutions and governance structures that can influence political economy and align desirable behavioral change across a broad suite of land users.

Key messages¹

1. **Peatlands mean different things to different people.** Across sectors, scales and individual stakeholders, peatlands represent diverse priorities, capture distinct aspirations and demonstrate site-specific challenges. Which of these perspectives prevails and who gets to decide the target for, and the future of peatland management? Clearly **dialogue and deliberative governance** will play a crucial role in determining important tradeoffs as decisions regarding the future of peat, the environment and economy are made. The GLF session content illustrated this diversity and spoke to the need for dialogue to negotiate futures which are acceptable to all. Speakers addressed issues ranging from the local importance of peat forests in community identity and for quality of life, as well as globally shared benefits of peatlands including their role in stabilizing global climate.

“To me the most important words in a landscape approach are constructive dialogue.”



Dr. Damayanti Buchori

Professor at the Department of Plant Protection, Faculty of Agriculture, Bogor Agricultural University

2. **The burdens of poor peat management outweigh the benefits** of business-as-usual approaches to land use. Peatland degradation yields transboundary impacts that include exposure to toxic smoke pollution (haze) that affects the quality of life of millions of citizens and causes damages across sectors: from health to education, from the environment to the economy. The

full environmental, social and economic costs of peat degradation and peat fires exceeds the revenues that conversion has enabled; yet, for individuals the immediate costs of rewetting outweigh the short-term benefits. Restoring peatland must operate within the ecological constraints of peat land systems and meet ecological, economic and social imperatives. A new model of management is needed.

“We couldn't breathe. When the peatlands burned, our eyes burned as well.”



Emmanuela Shinta

Dayak Leader, Filmmaker and Activist, Ranu Welum Foundation

“The cost of fire is twice that of what oil palm has produced; we incurred losses greater than we gained.”



Sonny Mumbunan

Researcher, RCC UI Senior Economist, WRI Indonesia

3. **Drivers of peatland conversion and peat fires are complex**, transcending scales and sectors, ranging from global demand for agricultural crops that require peat drainage to the tenure and judicial systems that manage land acquisition pathways and enable sanctions against transgressors. Both **national and provincial levels of government must have a key role in enabling peatland restoration at scale that will require coordination and an appropriate mix of incentives and sanctions.** Across sessions, the contribution of multiple stakeholders—from civil society to the private sector—was recognized along with an over-riding sentiment that the government of Indonesia, at all scales, will be key to enabling sustainable futures and is pursuing this target in earnest.

¹ These messages represent the content discussed in the individual sessions. They provide a summary and not the consensus of the Forum as whole. The order of the key messages listed here does not reflect an order of importance.



“ From this, what are the options for communities and private sector and what is the role of government in terms of promoting tropical peatland to be restored while still promoting the livelihoods of people?



Sonya Dewi Santoso

Indonesia Country Coordinator and Senior Landscape Ecologist, ICRAF

4. **Access to alternatives and the opportunity to engage** must be made available to the local level to enable equitable, legitimate and desirable policies and interventions that capitalize on local-level knowledge of context-specific challenges and needs. While action at the local level is indispensable, it is not sufficient alone; rather, macro-scale planning and uniting scales and sectors will be needed. Large-scale changes to land uses have shifted peatland ecologies to new states that, when combined with increased demand for land and climate anomalies, have increased wildfire risk and made traditional land use practices a part of the problem. Sustainable options for alternative livelihood development on peatlands demand further exploration—yet already diverse options are on the table and must be adequately supported.

“ Although we live in peatlands and we are trying our best to comply with government regulations, we cannot bear the responsibilities of sustainable peatland management without additional support and services.



Ibu Titi

South Sumatra

5. **Businesses call for new ways to make profits** and have considerable historic investments in peatland land use, with extensive concessions supplying products including oil palm and wood fiber to pulp industries. Small-to-medium enterprises and independent smallholder commodities feed in to these supply chains, yet contemporary models of management put peatlands at risk and incurring widespread damages that exceed private gains. With increasing enforcement of sustainable peatland management, some companies are seeking new business models that maintain revenue but have so far struggled to identify approaches that procure attractive returns.

“ There are a good share of companies that want to do the right thing but are prohibited by fear of collusion charges from the government. The landscape approach needs to keep that in mind.



Ernest Bethe

Principal Operations Office, International Finance Corporation

6. **Improved institutions, information and integrated systems** will be vital for charting improved economic, environmental and social performance, achieving fire prevention, protecting pristine peatlands and enabling sustainable peatland management. **Accurate data feeding in to strong and integrated institutions will be essential to get conservation, development and restoration efforts right.** Roles and responsibilities of different actors require clear articulation and information is central to targeting efforts.



“ We have done everything we can to get the legality of the land from the government but the process takes a long time and is still ongoing.



Pak Slamet
South Sumatra

7. **New models of peatland management will require financing** that has so far proven a challenge. Protection, restoration and new models of agricultural development on peatlands will require finance for new technologies, training and outreach that can tip current behaviors to desired alternatives. Donor funding

will not be sufficient alone, creating a pervasive interest in the potential to tap private investment. However, setbacks related to risk will need to be managed. Further, getting finance to smallholders remains a problem because lending programs often require formal titles, interest rates are too high, private banks are unable to overcome unattractive risks and independent smallholders are simply hard to reach.

“ Funds are available, but in silos—and they need transferring to prevent the fires.



Nico Oosthuizen
Divisional Director,
Working on Fire
International





Opportunities and promising practices to build on

Harvesting success stories from the ground

Successes across sectors and scales could inform pathways for change that can be translated to different peat geographies in south-south learning (for example, between Congo, Indonesia, Peru). **Sustainable alternatives for livelihood development on peatlands have been found both in traditional systems and through new developed methods. However, larger scale piloting is necessary to build integrated landscape systems with several livelihood options.** Locally, people who know well their context and resources have been experimenting with alternative options for livelihoods that will enable fire free futures. These include agroforestry (fruit trees and jelutung, aguaje in Peru, slash-and-mulch), using peatlands as fishing-forests and developing crafts from peat forest products. Local efforts are important, yet cannot stand alone; instead, macro-scale planning across sectors will be necessary. Further support is needed for training and incentivizing new approaches and for identifying and accessing markets, certification systems may enable price premiums for sustainable business ventures on peat. Aside from adaptive agricultural responses to changing peatland ecologies in Indonesia, businesses and communities alike have been engaging in canal blocking and deep well digging as a method to retain water in the system and avoid ignition, yet so far these have not been tested by an extreme dry year. NGOs and activists on the ground have been constructing dialogue and generating innovative events: from races, to culinary exhibitions on diverse peat forest foods to raise public awareness and engender care for behavioral change. Additional initiatives include green contracts for sustainable

management in buffer zones of national parks and ecotourism (as has been trialed in Vietnam). These are steps in the right direction that may provide a starting point for scaling-up activities for improved peat management, and represent an opportunity for countries who have yet to exploit their peatlands to learn from these experiences and engender best practices from the start.

“Cynicism can only be overcome by building confidence with successful examples.”



Agus Purnomo

Managing Director for Sustainability and Strategic Stakeholders Engagement Golden Agri-Resources, Ltd. (GAR)

“Flood is a fortune to us.”



Pak Abdul Agus Nuraini

Muara Siran Community Member and Head of Natural Resource Management Board

National commitment and international interest

Tropical peatlands are a hot topic, and in Indonesia the 2015 mega-fire event renewed interest and built momentum across scales for sustainable behavioral change. This target is demonstrated in the multiplicity of initiatives that are in place to meet the remit of sustainable peatland management

around the world. These include diverse governance actors and a range of intervention types, including the Global Peatlands Initiative and UNFCCC-related pledges—that 70% of greenhouse gas emissions reductions will be sourced from land. Countries’ nationally-determined contributions (NDCs) and their adaptation and REDD+ plans offer a so far uncaptured opportunity for peatland inclusion and their exploration is positive. Further, inclusion in to NDCs also enables registered monitoring of policy performance and progress towards improved management. Inauguration of the Peatland Restoration Agency (BRG) to coordinate fractured approaches is emblematic of the strong political will presiding over peatlands in Indonesia. Innovative tools are being developed in partnerships to assist policy formulation and response (for example, UN Environment’s *Haze Gazer* tool) and the international UN and donor community is supporting initiatives for sustainable futures. Member countries of the GPI are well placed to engage in knowledge exchange, learning from past successes and failures of peatland management around the world. Actions are not only evidenced at these high levels, but are represented through provincial governments to community and NGO initiatives on the ground. Many private sector actors are interested in sustainability as an investment and a pervasive optimism surrounds the potential for landscape-level results-based payment schemes. Now is the moment in which diverse communities have come together in shared concern for peatlands. It is an opportunity that may not be repeated and must be harnessed to move forward in concerted and coordinated action across sectors and scales.

“The beautiful thing about peatlands is that they can be part of countries’ mitigation and adaptation strategies within the context of the NDCs.



Daniel Murdiyarto,
Principal Scientist, CIFOR

“Every ministry has its own task to restore our peatlands, and so does each government at the district level.



Bambang, MM,
Director General of Agricultural
Plantation, Ministry of Agriculture

Big data, better knowledge, transparent planning.

While a considerable information gap was clearly defined, already impressive steps have been taken and can be built on further to help enable decision-making orientated to sustainable futures. These include innovations involving local-level users, such as using smartphone applications to report in real time on peat fires, and social media to monitor keywords such as “smoke” to enable fast response. Such data can also be sourced to extend big data platforms with information from the ground. *Haze Gazer* is one such platform. It is a crisis analysis and visualization tool that is both open access and installed in the government office, and is used to enhance disaster management efforts by providing real-time insights on the concentration of haze in population centers. Big data represents a compelling opportunity to bring better knowledge to land use planning. For example, the *Borneo Atlas* helps governments, NGOs and producers of palm oil and pulpwood verify corporate zero-deforestation commitments. More broadly, this atlas gives everyone the opportunity for consumers to consider the environmental impact of their purchasing behaviors. Potential for this tool is large and includes extending its spatial coverage and linking historic land use changes to health impacts over time. The temporal scope of satellite-derived data, from archival land use change patterns to near real time data from satellites and smart phones, is impressive. A number of big data platforms (including the *Interactive wetlands map*, *FIRMS fire*



data repository, TRMM and TRACE, among others) are available and their open access can be used to improve our understanding of land use pathways, their drivers and their environmental and social consequences as well as to predict risk and define culpability. Further, sophisticated fire risk systems could be harnessed to allocate resources to local governments for fire prevention efforts.

“ Our work on forests and peatland is central to achieving sustainable development and poverty reduction. That’s why it is critical to scale up forest-smart development in our client countries.



Dr. Karin Kemper

Senior Director, Environment and Natural Resources Global Practice, World Bank

Intact peatlands are priceless

In many respects pristine peatlands are priceless and there is growing evidence of the urgent need of their protection. Sustainably-managed peatlands provide both economic and environmental services. Carbon stocks in peat present an opportunity for inclusion in countries’ NDC commitments, and potentially also an economic opportunity for local

communities and large scale actors to build new types of livelihoods and income streams. Throughout the day the imperative of realizing and defining the value of intact peatlands was recognized and there was widespread agreement that local people must be involved, and must benefit directly. By linking the burden of fire to broader fiscal policies, the benefits of maintaining intact peatland becomes starkly clear. Such transparency could open a space for shifting resources, for example, from firefighting to fire prevention. This process would have considerable and additional benefits; for example, it could free up resources for investments in sectors such as education, health care and job creation. The asset of intact peatlands transcends financial return: for many, peatlands are part of their cultural identity and their ecosystem services are considerable. This value is not insignificant and requires innovative mechanisms for integration in to future planning.

“ For me, the important question is how to get the Indonesian public to care about forests. So far, all the problems related to forests are considered not affecting them directly.



Leony Aurora

Founder, Hutan Itu Indonesia





Challenges and addressing knowledge gaps

While momentum is manifest and commitment is clear, finalizing and actualizing plans for peatland protection, restoration and sustainable management encounters a series of substantive challenges. These were discussed throughout the GLF event and although conversations were dispersed throughout parallel sessions, consolidated challenges emerged that map back clearly to the key messages. Notably, key issues present stumbling blocks: **institutions, information and integrated systems** need improvement; accounting for the **burdens** of current management models is essential; **the opportunity to engage** at the local level must be capitalized upon; and **financing** must be unlocked.

“ We need to do this together. We need to communicate this well. We need to have those maps to decide what needs to be done.



Sonya Dewi Santoso

Indonesia Country Coordinator and Senior Landscape Ecologist, ICRAF

Information and institutional shortfalls

dominated the discussion on challenges. Specifically, silo-styled management of ministries and institutions needs transforming to coordinate efforts. Presently the damages of peatland degradation (including wildfires and haze), are not linked to fiscal policies. Better information on the **burden** of poor management is vital to enable mechanisms for **financial flows** through governments and ministries. **Valid and government-endorsed evidence on the health impacts** is imperative but problematic since contemporary systems and capacity do not allow for sufficiently robust

estimates. For example in Indonesia, ICD codes (which relate to cause of death classification) do not disaggregate for all acute respiratory related causes of death (such as ‘asphyxia’ or lung failure) and long-term respiratory related complications (such as chronic obstructive pulmonary disease)—parameters key to measured estimation studies. Low rates of civil registration, and limited monitoring stations for PM10 and PM 2.5 are considerable constraints and suggest an immediate need to improve estimates derived from modelled approaches.

Institutional requirements include addressing accountability and roles and responsibilities that have yet to be determined and judicial systems that require strengthening. Land tenure and land rights are a considerable challenge, with overlapping land claims endorsed at different levels, and the reality of absentee investors and middlemen involved in land transactions further complicating the issue. These under-the-radar land users are largely missing from the debate surrounding solution policies and measures. In addition, peatlands are ecological landscapes held in a mosaic of public and private tenure; the implications for who should finance their sustainable management and under what policy mixes remains unclear.

Information needs include improved maps of peatland attributes and extents and better prediction tools for understanding fire risk ahead of the fire season, both of which would enable appropriate targeting of resources. The landscape-level impacts of past and potential peatland management decisions need to be quantified in the context of transparent land tenure data. Information on the complete costs of contemporary peatland management practices is crucial and will enable the **burdens** to



be understood clearly and subsequently addressed through approaches that mitigate such losses, ensuring accountability and enabling transparent planning. Trust funds may help avoid the constraints related to budgetary implications of political cycles. Focusing on solutions oriented towards including already degraded “idle” peatland will enable these areas to break the repeated cycle of burning that they currently experience.

At the local level **alternatives** to adapt to new ecologies need to be defined: while blocking canals and rewetting improve peatland health they also require new cultivation techniques across scales of land holders. Peatlands are unique and require context-specific solutions that engage with local-level realities, yet so far have struggled to do so. Further capturing the local meaning of peatlands and their role in community identity has not been recognized and does not fit within dominant management models.

“The communities who destroy the forests are not richer than us who are protecting forest [peatlands] for sustainable fishing.



Pak Abdul Agus Nuraini

Muara Siran Community Member and Head of Natural Resource Management Board

Finance and profits for sustainable alternatives represents a bottleneck for all users, including smallholders. Getting finance to smallholders remains a problem because lending programs often require formal titles, interest rates are prescriptively high, private banks haven’t captured the opportunity yet, and—notably— because independent smallholders outside of formal cooperatives are hard to reach.

Philanthropic pots are in high demand, while private investments retract from risk and prefer short time horizons for returns. Business paradigms pivot on economic return and the time frames of peatland restoration do not compete with the immediate gains of business-as-usual practices, so attractive options for realizing wealth from intact peatlands continue to evade the private sector.

Constructive dialogue requires trust and still struggles to overcome the legacy of the past.

“Every child should have the right to play.



Dianna Kopansky

Programme Management Officer, UN-Reducing Emissions from Deforestation and Forest Degradation (REDD), UN Environment

“There’s a lot of money on the table; the question is how and where to direct it.



Ann Jeannette Glauber

Lead Environment Specialist, World Bank



Future focus

A number of areas where future efforts towards sustainable peatland management would be well-placed emerged from the plenaries, sessions and breakout groups. The GLF Community of Practice will be a movement, an engine that will enable the flow and exchange of ideas, innovation and insights for momentum—both in terms of knowledge and sharing learning between countries and contexts, and from action on the ground. Local level initiatives through to international efforts are presently poised to focus on peat and provide a real possibility for futures with improved social, environmental and potentially economic outcomes. Synergizing these

commitments from global to local in equitable approaches that represent acceptable tradeoffs for all stakeholders is the challenge that casts the backdrop to these efforts. Throughout the event three areas of need emerged that characterize future focus.

“It’s important to see peat not as a wasteland but as a resource.”



Dennis del Castillo

Director Forest Management and Environmental Service Program, Peruvian Amazon Research Institute (IIAP)

Maintain, enhance and actualize interest and dialogue

In Indonesia the 2015 fire event attracted international, regional and national attention and catalyzed an interest that is represented in research, interventions, policy change and increased enforcement. However, even as the haze falls out of the media and potentially from memory, this interest must be maintained. To avoid future mega-fire events and the cross-sectoral burdens they entail, sustained interest and action is needed. True peatland restoration can only be achieved over an extended time horizon. The GLF, GPI, Bonn Challenge, COP and others are high-level and important initiatives that offer the opportunity for south-south learning; meanwhile, local-level actions including farmers’ unions for knowledge sharing, NGO initiatives to campaign and private sector programs for improving management demonstrate the diverse stakeholders at the table. Within this dialogue semantics are important and definitions need to be clear and harmonized to make sure efforts are focused and in line when addressing key concepts such as “smallholder,” “restoration,”

“rewetting” and “landscape approach.” Boundary organizations and research institutions working as neutral, independent actors can facilitate greater collaboration and cooperation between the state, private and local communities. Creative communication, outreach and dialogue—from communities of practice to sharing science and learning, and from immersive displays and art exhibitions to community events that engage society at large—will facilitate more actors to come together in understanding peatlands, their biophysical properties and their multiple values and recognizing the need for behavioral change.

“There are so many ideas to accelerate action, many potentials—so how are we going to adapt, choose and then implement them in certain areas?”



Satrio Wicaksono

Forest and Landscape Restoration Manager, World Resources Institute



Science, research and development

Credible research is needed and should integrate the various domains of knowledge – local, scientific and policy-oriented knowledges. For example, alternative farming methods (such as agroforestry, fisheries, paludiculture, slash-and-mulch) need to be identified that improve soil conditions, retain moisture and are simultaneously affordable, generate income, operate within the biophysical conditionality of peat and reduce fire risk. Data and information on how these innovative models may be streamlined into local, regional and global markets and how investment may be channeled to reach land users—particularly small scale producers—is vital.

“ **Agroforestry systems with the right species in the right places can be a solution to managing peatlands that can support local livelihoods.** ”



Akhmad Tamanuruddin
Kalampangan Community Member

At the ecosystem level, maps of the extent, depth and type of peatlands will be a great benefit. Improved knowledge of water flow in peatlands, including the long-range effects of peat drainage and the impacts of water level

parameters, will inform water management and restrictions on peat. New methods to estimate carbon stocks in peat quickly and accurately are needed to enable a standardized carbon stock assessment system. Improving systems that link weather information with maps of fire risk to reduce response time and target prevention measures are particularly essential for peat landscapes.

In the socio-political domain research is also needed, as complex socio-political dynamics and political economy set the backdrop in which government, private sector and local people (migrant and indigenous) interact to shape peatland management. The interacting complexities that perpetuate peatland conversion need to be understood if sufficient policy responses can be determined and enacted.

Improved estimates of the health-related burden of peat fire and haze (including of base soil exposure) provide information to policy makers about the impacts of land use practices.

“ **The questions are: how can we reconcile all the interests in one landscape, and how do we conceptualize all the science approaches?** ”



Terry Sunderland
Team Leader, Sustainable Landscapes and Food, CIFOR

Reconciling priorities and defining new models

Peatlands mean different things to different people and diverse priorities and aspirations are apparent. Community consultations are vital for pristine peatland protection and for sustainable management of peatland—so that local communities can be empowered to adapt and manage the land sustainably, but also so that local people can have a voice in determining these trajectories. Who should define new models of management, what parameters should be pursued and who decides? Cooperation and trust between stakeholders—national and provincial governments, community, private sector and more—will be essential to enable the balance of economic, environmental and social imperatives. Defining roles and responsibilities and creating

partnerships across sectors and scales will play an important role moving forward. New models of management will likely need to realize novel income streams that make alternative management lucrative and that bring idle peatlands out of a repeated cycle of burning, while making peatland protection possible. Improved peatland management entails transparent reconciliation of competing interests between diverse actors.

“ Please make sure that you save the untouched peatlands.



Pak Edi Rusman

Community leader, Perigi village, Talang Nangka, Pangkalan Lampan Regency, South Sumatra





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Session Hosts

