IMCG Bulletin: February 2018

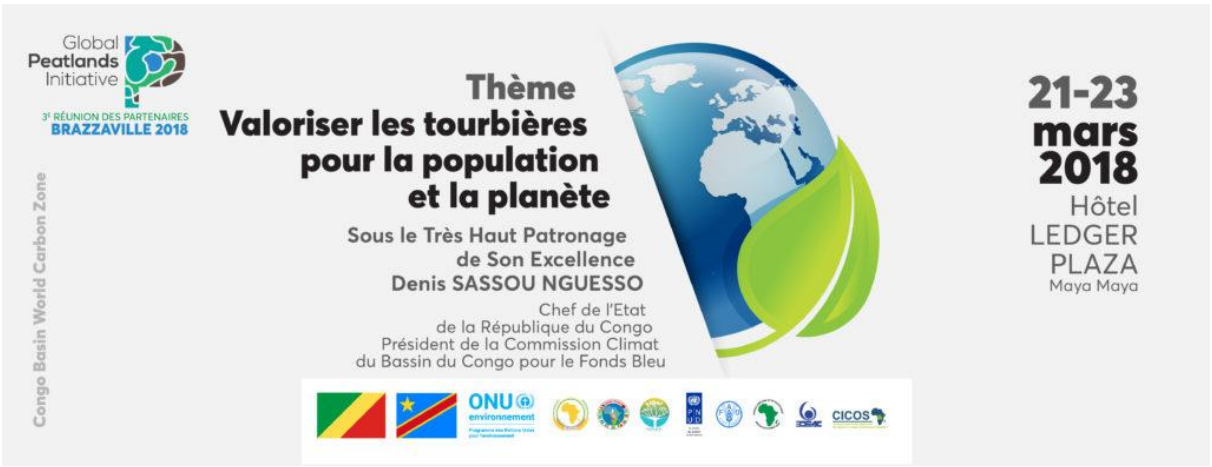
INTERNATIONAL MIRE CONSERVATION GROUP

www.imcg.net

Word from the Secretary-General

Dear mire friends

A second Bulletin of this year, shortly after the first one. And again overfilled with information. Good news is that the organization committee of the 2018 Field Symposium in the Netherlands offers cheaper, "early bird" participation fees, provided that you register in time. So please register fast, at the latest at the end of March. The 2018 IMCG General Assembly has been moved from August 22 to August 31 in the surroundings of Utrecht, which will enable more members to participate without joining the entire field symposium.
For next month the meeting of the Global Peatlands Initiative (GPI) in Brazzavile, Republic of Congo, will be on the program. We will report on that in the next issue.
Meanwhile: Keep sharing your ideas and experiences by sending news, photographs, papers and other contributions for the next Bulletin by April 6, 2018 to Hans Joosten at joosten@uni-greifswald.de.



http://www.tourisme-environnement.gouv.cg/environnement/global-peatlands-initiative/

Contents of this Bulletin

IMCG issues

2018 IMCG Field Symposium/General Assembly/key information
Arrival: Monday August 20, Amsterdam, departure: Saturday, September 1, Amsterdam.
IMCG Symposium 22 August: NIOZ research Centre, Island of Texel
IMCG General Assembly: 31 August in/near Utrecht
Field excursions: Tuesday 21 (Island of Texel) and August 23-31. Number of participants: 50 max.
Costs: 850 Euro for IMCG members, 930 Euro for non-members May 1 ("early bird") afterwards 900 Euro for IMCG members, 980 Euro for non-IMCG members. Including accommodation, transport within the Netherlands, lunch packages, diners, excursion guide and abstracts book.
Registration is open, please fill out the registration form
Keep an eye on the website: http://www.imcg.net/pages/events/imcg-2018.php

IMCG General Assembly 31 August 2018,
On the IMCG General Assembly 2018 in the Netherlands only a limited number of IMCG members can be present, and only limited time will be available. Therefore we will arrange the discussions and decisions largely by internet and email, like we have done with earlier General Assemblies. The January Bulletin contained the preliminary agenda for this Assembly (that will be available on our website as well) and in the beginning of July 20018 we will produce a Bulletin containing the documents for the Assembly and all information on how the voting per email or snailmail will be done. We will furthermore open a special place on the website where discussion papers can be made available. Therefore: provide the IMCG secretariat with additional agenda points and submit your background papers, concrete proposals, draft resolutions, contributions for discussion, nominations for the IMCG Main Board and for Honorary Life membership, etc. until 30 June 2018. Send the material in as soon as possible to joosten@uni-greifswald.de– the sooner the better – so that we can arrange the democratic procedures in a smooth way.

Mires and Peat
Our scientific journal Mires and Peat is flourishing with an increasing number of high-quality papers! In February the following papers were published

- Genetic diversity of *Dyera polyphylla* (Miq.) Steenis populations used in tropical peatland restoration in Indonesia. [H.L. Tata, A. Muchugi, R. Kariba & M. van Noordwijk] Volume 21: Article 01) http://mires-and-peat.net/media/map21/map_21_01.pdf
- Plant diversity and functional trait composition during mire development. [A.M. Laine, T. Selänpää, J. Oksanen, M. Seväkivi & E.-S. Tuittila] Volume 21: Article 02 http://mires-and-peat.net/media/map21/map_21_02.pdf
  Find the journal online at http://mires-and-peat.net/. Send your new manuscripts to Editor-in-Chief Olivia Bragg: o.m.bragg@dundee.ac.uk

Papers

Peatland found in Swaziland!

Althea Grundling (Althea@arc.agric.za)

Two peatlands were recently (15 Jan 2018) discovered in Swaziland's Malolotja Nature Reserve during a preliminary field visit to explore headwater catchment study sites. This is as far as we know the first confirmed occurrence of peatlands in the Kingdom of Swaziland (Figure 1). Swaziland is a small (17 364km^2) land locked country with altitudes varying from 1862m amsl in the mountainous west bordering South Africa to 21m amsl in the lowland plains close to the Mozambique border in the east.
Malolotja Nature Reserve (http://www.sntc.org.sz/reserves/malolotja.asp) is a beautiful mountain park situated in north eastern Swaziland. It includes 18 000ha of mountainous grassland, with pockets of forests, woodland and various wetland types. The two peatlands occur at about 1 400m amsl in a grassland valley with fairly steep slopes and together cover about 20ha (Figure 2). The larger mire (Malolotja Peatland) can be classified as a channeled valley bottom mire (19 ha) with groundwater input from various springs in seep zones, whilst the smaller adjacent peatland is an unchannelled valley bottom system (1 ha).

Fig. 1: The Kingdom of Swaziland with the Malolotja Nature Reserve (red square) where the two peatlands were discovered.

Fig. 2: The Malolotja Peatland (behind the figures in the photo) within the headwaters of the Malolotja River Catchment. A smaller peatland occurs to the north (left) and feeds into the Malotja Peatland.

The smaller system contain about 1 m of somewhat dry, fine grass/sedge peat indicating desiccation. Parts of the larger system exhibit desiccation adjacent the incised (1.5 m deep) Malolotja stream flowing through it with patches of burnt peat (Figure 3, 4 and 5). Sections closer to seeps and springs were inundated, with wet peat and healthy vegetation (grass/sedge/reed) (Figure 6, 7 and 8). The peat depth is estimated at 1.5 to 2 m.

Fig. 3: Evidence of desiccation and peat fires.

Fig. 4: Peat profile in the burnt site: 0-20 cm: no recovery, 20 - 50 cm: peat, > 50cm semi-permeable clay layer. Water table at 50 cm.

Fig. 5: Possibly draining incised channel (1.5 m deep).

Fig. 6: Fibrous peat towards the centre of the peatland (0- 30 cm).

Figure 7: The peat was deeper and vegetation healthier towards the centre of the wetland where it was still inundated

This rapid assessment was only based on two transects and a full peatland survey is planned as part of a Water Research Commission funded project and a future PhD study. The team visiting the wetlands of Mololotja consisted of Dr Piet-Louis Grundling (University of the Free State), Dr Althea Grundling (Agriculture Research Council) and Mr Jason le Roux (University of Pretoria) accompanied by Prof Heinz Beckedahl, Dr Wisdom Dlamini, Mr Mthobisi Masilela and Mr Welile Kunene from the University of Swaziland. Mr Ngwane Dlamini (Malolotja Nature Reserve Senior Warden) expressed his appreciation and excitement regarding the special finding in Swaziland! The opportunity was used to share some basic peat assessment skills and to tell the Swazi academic and conservation officials more about IMCG and its objectives – hopefully some will join us soon!!

Fig- 8: Peats in a 1 m deep profile towards the centre were wet and not desiccated.

Fig.: Various springs and seeps show groundwater exfiltration into the mire. Bramble (invasive) occurred in some indicating disturbance.

Peatland news

Global

Ramsar news

Tatiana Minayeva (Tatiana.minayeva@wetlands.org)

On 23–27 April 2018 the 54th meeting of the Standing Committee (SC) of the Ramsar Convention will convene in Gland, Switzerland. The task of the Standing Committee is to prepare all documents that go for approval to the Conference of Parties (COP), including the draft resolutions. The SC is the last possibility to change the text of resolutions before it goes to the COP. The next possibility will be at COP itself, which is a more difficult procedure, as far more countries must agree with your proposal. After the COP has adopted a resolution it becomes a guiding document for contracting parties (CP) policy, as a decision of the Convention.

A collection of information material on peatlands, including adopted peatland associated Ramsar resolutions, is provided by the Ramsar Convention: https://www.ramsar.org/themes/peatlands

There are several resolutions in the pipeline that are one way or another related to peatlands. Please take your time to read the resolutions and give your recommendations. Recommendations should get in an official framework. You can communicate proposals to your national focal point, who can take them on board for discussions during the SC. The other way is to take part in the discussions in the regional preparation meetings. For example, one for Europe is scheduled 19-23 March in Olomouc, Czech Republic: https://www.ramsar.org/event/regional-pre-cop-meeting-2018-europe (with not much information…). The draft resolutions are available under https://www.ramsar.org/event/54th-meeting-of-the-standing-committee. We recommend taking a look at:

- the Draft Resolution on restoration of degraded peatlands to mitigate and adapt to climate change and enhance biodiversity (submitted by the Scientific and Technical Review Panel: https://www.ramsar.org/sites/default/files/documents/library/sc54-25_dr_peatland_restoration_e.pdf

- the Draft Resolution on wetlands in polar and subpolar regions (submitted by Sweden): https://www.ramsar.org/sites/default/files/documents/library/sc54-21.14_dr_polar_wetlands_e.pdf
- The Draft Resolution on agriculture in wetlands (submitted by the Czech Republic): https://www.ramsar.org/sites/default/files/documents/library/sc54-21.5_dr_agriculture_in_wetlands_e.pdf

Tania will attend the European preparation meeting – so you can communicate your proposals also directly to her: Tatiana.minayeva@wetlands.org

Tire company Bridgestone hits the brakes on deforestation and peatland development

Global tire and rubber company Bridgestone Corporation on February 6 announced a new sustainable procurement policy which outlines the company's mission to eliminate deforestation and peatland development, reduce its waste and carbon footprint, and address human rights and labour issues across its supply chain. The policy, which is applicable to all Bridgestone's suppliers, also aims to improve the traceability of the company's supply chain, and holds suppliers to good governance standards which include not participating in corruption, bribery, or extortion. Bridgestone's policy comes after fellow tire giants Michellin and Pirelli released their own statements in previous years for deforestation-free rubber.

According to its website, Bridgstone's new policy will be implemented regionally. Over the next 18 months, Bridgestone will work with its suppliers and partners to ensure that they have received the policy and understand it. http://www.eco-business.com/news/bridgestone-hits-the-brakes-on-deforestation/

Further reads and views:

- https://www.petro-online.com/news/environmental-laboratory/7/breaking-news/are-peatlands-important-for-the-environment/45091
- https://www.insidephilanthropy.com/home/2018/2/7/an-international-partnership-wins-1m-prize-to-map-indonesias-peat-problem

Africa

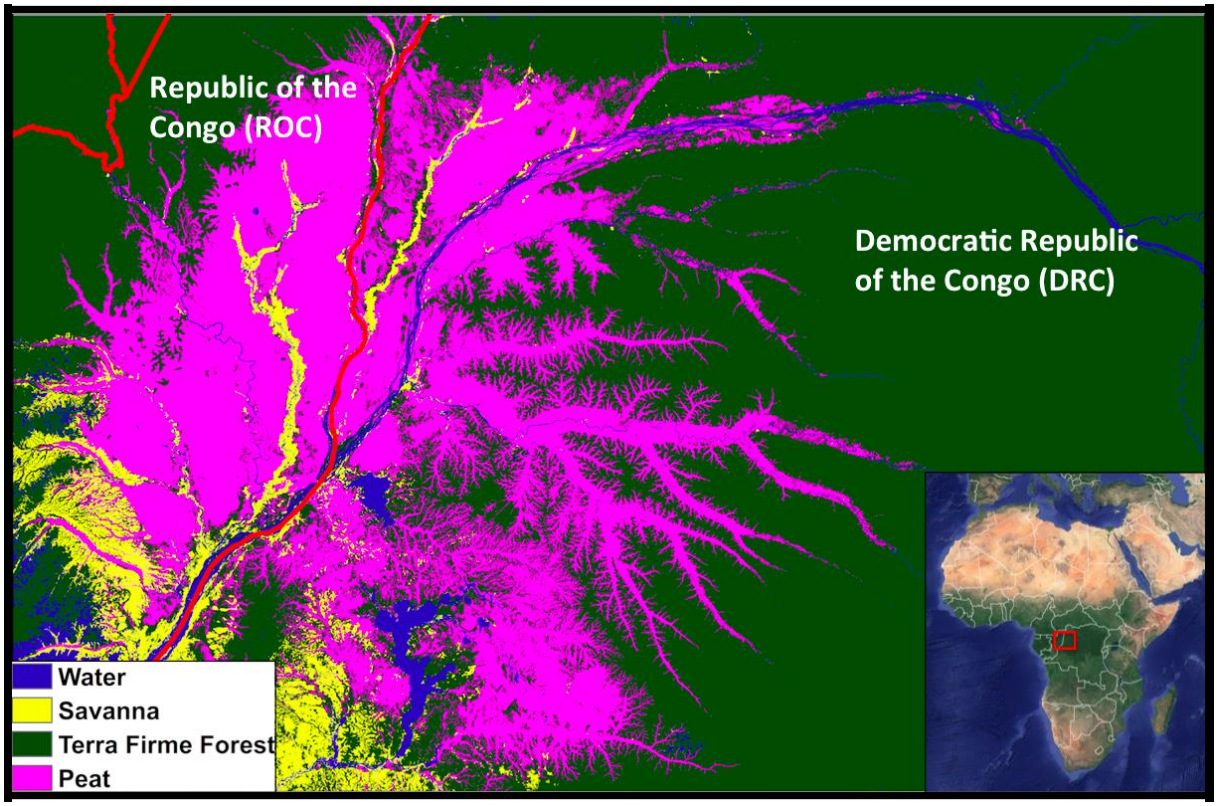
Scientific research on tropical peatland in the Democratic Republic of Congo. Photo: Wikimedia Commons

Two Congos launch joint appeal for peatland protection

The Democratic Republic of Congo (DRC) and the Republic of Congo are jointly seeking funds to help them protect their tropical peatlands. In a joint statement, the two central African neighbours said they hoped to gain "guarantees, in the form of funding... with the aim of sufficiently offsetting" sacrifices made by their populations if the peatlands are left untouched. The two countries' environment ministers, meeting in the DRC capital of Kinshasa in the second weekend of February, agreed to set up a "joint peatland management mechanism".

In addition to being a biodiversity hotspot, the 145,000 km^2 large swampy peatlands in the Congo basin forest hold a massive stock of carbon estimated at 30 billion tonnes. Draining these peatlands would release huge amounts of greenhouse gases. Current greenhouse gas emissions from drained or burning peatlands are estimated to amount to up to 5 percent of all emissions caused by human activity. International funding to prevent carbon emissions through tropical deforestation is already well-established. However, there is no scheme yet on a similar scale that is specifically framed for tropical peatlands.

- http://www.africanews.com/2018/02/13/congo-dr-congo-launch-joint-appeal-for-peatland-protection/
- http://www.enca.com/africa/two-congos-set-joint-approach-for-peatland-help
- http://www.worldnews.easybranches.com/regions/africa/enca-two-congos-set-joint-approach-for-peatland-help-678053



The recently discovered peatland is believed to be the largest tropical peatland in the world. Image courtesy of Dargie et al., 2017.

Democratic Republic of Congo

DRC Congo approves logging near carbon-rich peatlands

Two Chinese-owned companies have been awarded 6,500 km^2 of logging concessions in the Democratic Republic of Congo (DRC). On February 1, the two companies, Forestière pour le Développement du Congo (FODECO) and Société la Millénaire Forestière (SOMIFOR), were awarded three logging concessions that had been cancelled in August 2016 by then-Environment Minister Robert Bopolo. The current Congolese Minister of Environment, Amy Ambatobe, granted the concessions. According to Global Witness, Ambatobe's decision violates a 2002 moratorium on any new industrial logging concession. Two of the three concessions are located in forests that grow on top of peatlands, which are believed to store a massive 30 billion tons of carbon.

According to Reuters, DRC's Ministry of Environment is crying foul at the objections to the concessions, saying the area doesn't violate the moratorium because the concessions have already been exploited. In a statement, Democratic Republic of Congo's environment ministry said the peatlands would not be threatened because they lie in zones that are "geographically unexploitable".

- https://news.mongabay.com/2018/02/drc-breaches-logging-moratorium-for-chinese-owned-companies/
- http://news.trust.org/item/20180220200813-pa0kh/
- https://cleantechnica.com/2018/02/27/congo-reopens-logging-forests-near-huge-peatlands-contain-billions-tons-greenhouse-gases/

NGOs seek suspension of forest-related funding to DRC in response to proposed end to logging moratorium

More than 50 conservation and human rights organizations have called on international donors to halt funding aimed at economic development and forest protection in the Democratic Republic of Congo after leaders in DRC announced their intention to end a 16-year-old moratorium on new logging licenses. "Any moves to lift the moratorium could see forests become the next victim of a scramble to make a quick profit from DRC's natural resources," said Jo Blackman, a campaign leader with the NGO Global Witness, in a statement from Rainforest Foundation UK. Global Witness, Rainforest Foundation UK and Greenpeace are among the signatories to a letter sent to donor governments and agencies around the world that argues that an end to the moratorium before rooting out the corruption that plagues the forest sector in DRC could destabilize the country. "Any expansion of industrial logging would have irreversible damage on the forest, its communities and the global climate," Blackman said. In the framework of Reducing emissions from deforestation and forest degradation in developing countries (REDD+), international organizations and countries including the United States, Norway and Germany have poured hundreds of millions of dollars into DRC in an attempt to keep that forest standing, as well as provide money for economic development for the citizens of one of the poorest countries in the world. Still in October 2017, the Norwegian-funded Central African Forest Initiative (CAFI) greenlighted the transfer of USD 41.2 million (https://goo.gl/M36XRg) to DRC's national REDD+ fund. The letter advocates for the suspension of REDD+-related funding to DRC immediately and that the money should only be reinstated if DRC's leaders agree to a more inclusive process for revising the Forest Code. And, so the letter, the moratorium shouldn't be lifted until DRC can improve the management of its forests and the legality of the sector.

Simon Counsell, Executive Director of Rainforest Foundation UK, said: "The issuing of new logging concessions sends a clear signal to the international community that the DRC government is abandoning any pretense at reducing emissions from deforestation and forest degradation. Any new large-scale logging operations on peatland forests in particular are likely to cause massive emissions of greenhouse gases. Donors such as Norway and the World Bank will need to reconsider whether REDD programmes in DRC are credible and supportable."

- https://news.mongabay.com/2018/03/ngos-seek-suspension-of-forest-related-funding-to-drc-in-response-to-proposed-end-to-logging-moratorium/
- https://www.cnbcafrica.com/apo/2018/02/20/democratic-republic-of-the-congos-government-reinstates-illegal-logging-concessions-in-breach-of-its-own-moratorium/

Congo defends right to explore for oil in national parks

Democratic Republic of Congo's oil minister on February 15 defended the country's right to explore for oil anywhere on its territory after media reports that President Joseph Kabila approved drilling in Africa's largest tropical rainforest reserve. Oil minister Aime Ngoy Mukena declined to confirm a report in Germany's *Die Tageszeitung* newspaper that Kabila had this month authorised exploration inside Salonga National Park, but he said that no land should be off-limits. Congo, Africa's leading copper producer, has long aimed to boost its oil sector and is believed to have sizeable reserves in the Cuvette Centrale and near its border with Uganda, but output has remained flat at about 25,000 barrels per day.

http://ewn.co.za/2018/02/16/congo-defends-right-to-explore-for-oil-in-national-parks

South-Africa

KZN Wetlands Forum devises a solution for endangered wetlands

This year's World Wetlands Day (2 February) was celebrated in northern KwaZulu-Natal, South Africa, by bringing together community leaders, municipalities, state departments, scientists and industry to discuss a workable solution to the rapidly declining water levels in the area. This includes the Vazi Pans peatland wetland

system. Outputs from several scientific studies concur that forestry in the region is having a significant impact on the water resources. Additional stressors include a prolonged drought and increased levels of abstraction for human consumption. Superimposed on this is the threat of climate change. Exacerbating the problem is the burning of the peatlands, which are important stores of carbon and, by acting as a sponge, help hold up the water table. The declining water table has led to the drying out of the peatlands with the earliest reported incident of severe burning in Vazi-North in 1998. In 2017 fires broke out again in some of the peatlands resulting in an increased loss of peat. The declining water levels are also having a dire influence on the livelihood of the rural community in the area whose subsistence is intertwined with the wetland systems. This supply of water is vital for their small farming activities, and for many years community members have been aware of the threat that the pine and blue gum plantations pose to their subsistence.

The outcome of the meeting was extremely positive in that all stakeholders have now agreed on the issues and there is a commitment to work together to find water sustainable options for livelihoods, economic growth and job creation. A formal proposal is now being drafted to apply for funding from various sources, such as the Green Climate Fund, to assist in the development of a document that will guide the implementation of a strategy for the Vazi-wetlands.

http://www.engineeringnews.co.za/article/jg-afrika-supports-kzn-wetlands-forum-in-devising-a-solution-for-endangered-wetlands-2018-02-21/rep_id:4136

Asia

Regional summit to focus on Paris Agreement

The 2018 Asia-Pacific Rainforest Summit (APRS) will be focused on enhancing the efforts by countries in the region to achieve commitments under the Paris Climate Change Agreement. The Indonesian government with the support of the Australian government and in partnership with the Center for International Forestry Research (CIFOR) will host APRS in Yogyakarta, Indonesia from April 23 to 25. A statement by CIFOR on February 21 said the event will bring together government, business, civil society and the research community to generate practical action on forest conservation and to help achieve sustainable development in the Asia-Pacific region. APRS will feature discussion on forests in nationally determined contributions, the restoration and sustainable management of peatlands, mangroves and blue carbon, community forestry, ecotourism and conservation of biodiversity, production forests and forest finance, investment and trade.

http://www.fijitimes.com/story.aspx?id=435524

UK Space Agency to run £2.2 million project in Malaysia & Indonesia

The UK Space Agency (UKSA) will be running a £2.2 million project in Malaysia and Indonesia to use satellite observations and measurements to monitor peatland areas, thereby reducing the occurrence of forest fires and haze in South East Asia. The project, named Peatland Assessment in SE Asia by Satellite (PASSES) will be delivered by CGI IT UK Ltd in partnership with the Global Environment Centre (GEC) of Malaysia. The state-of-the-art project will map peat condition using observations from satellites through the EU Copernicus programme and emerging industrial hosted processing capabilities. By monitoring water levels and improving hydrology in the peatland areas, the risk of fire can be dramatically reduced. Her Excellency Vicki Treadell CMG MVO, the British High Commissioner to Malaysia, welcomed the initiative and said: “This project is the latest example of the UK’s partnership with Malaysia in tackling global environmental challenges. This cutting-edge UK space technology will monitor risk areas, so it helps to reduce forest and peatland fires as well as haze that they cause. As such it will also reduce the significant health risks from haze as well as global CO_2 emissions. So whether on the ground or now from space, Britain’s partnership with Malaysia is helping to improve the lives of Malaysians and the environment in which they live.”

Faizal Parish, Director of Global Environment Centre (Malaysia) said: “The PASSES project will further develop and demonstrate new cost effective satellite technology suitable for detecting and monitoring vertical

displacement over very large peatland areas. As such it will be highly strategic in enabling more efficient targeting and monitoring of results of management actions including water management and peatland restoration as well as supporting fire and haze prevention, both in Malaysia and Indonesia."

- https://www.gov.uk/government/news/uk-space-agency-to-run-22mil-project-in-malaysia-indonesia
- https://govinsider.asia/innovation/uk-space-agency-satellites-apac-forest-fires/

Unilever and Nestlé publish detailed supplier lists

In February Nestlé and Unilever both published a list of all their direct and indirect palm oil suppliers and mills. These two consumer goods companies are major players in the global palm oil industry, and purchase about four percent of palm oil production globally. Most of the larger palm oil traders and refiners, such as Musim Mas, often suppliers to Nestle and Unilever, had already published similar lists. Unilever and Nestlé's move represents a significant increase in transparency in the palm oil supply chain, as downstream consumer goods companies had never before provided such detailed information on their supply chains. By fully disclosing their supply relationships, Unilever and Nestlé set a trend that may push the remaining companies in the USD 62 billion palm oil sector to follow suit. For both companies it is now more difficult to maintain trade relations with growers that continue to deforest or clear peatland.

Unilever's and Nestlé's further contribution to the transformation of the palm oil sector relies on the actions they take to address cases of No Deforestation, No Peat, No Exploitation (NDPE) non-compliance, such as suspending repeat offenders. In 2017, Unilever suspended purchases from Sawit Sumbermas Sarana, following Wilmar, Apical, and Golden Agri-Resources who had already done so in 2015.

http://www.valuewalk.com/2018/03/nilever-nestle-supply-chain/

Indonesia on fire, October 16, 2015. An image posted on Twitter purporting to show the smoke-choked city of Palangkaraya.

Indonesia

Backtracking on reform: how Indonesia's Government is weakening its palm oil standards

There is an increasing market demand for sustainable palm oil. More and more companies globally have adopted sustainability policies – 73 % of companies had commitments to reduce deforestation in 2017. Multiple countries in Europe have their own national commitments to source only certified sustainable palm oil. In response to such market demands, the Roundtable on Sustainable Palm Oil (RSPO) is also currently working to improve its certification standards.

The Indonesian Sustainable Palm Oil standard ISPO has been criticized for inadequate environmental protection, neglect of human rights, weak law enforcement and poor governance. Only 1.9 million hectares (16.7 %) of palm oil plantations in Indonesia are certified, even though ISPO has been implemented since 2011 and is mandatory since 2014. In comparison, the RSPO, a voluntary scheme, has certified 2.51 million hectares, representing 19 % of palm oil globally.

In mid-2016, the Indonesian Government began a process to strengthen the ISPO and produce a new Presidential regulation on the ISPO. A position paper released by civil society in March 2017 outlined a joint vision for the ISPO hoping for it to limit deforestation, protect forests and peatlands, ensure legality and guarantee the rights of communities. Through regular meetings of the multi-stakeholder teams and regional public consultations, the key ISPO principles were agreed. A draft regulation was prepared to be further discussed through a national public consultation. However, no national consultation has ever taken place and since September 2017 there has been deteriorating communication from the Government.

Early February it emerged that a new draft has been formulated by the Government which eliminates the new principles on human rights and traceability; there is now no provision for independent monitoring nor a complaints system and it is no longer clear if all smallholders have to become ISPO certified. Additionally, the new draft does not give enough importance to the 'protection' principle for forests and peatlands, creating uncertainty that these areas will be protected at all. This is in sharp contrast to the Government's ongoing moratorium on new licenses in primary forests and peatland as well as an upcoming moratorium expected to halt the issuing of new palm oil permits.

The Government of Indonesia has previously called on the United Nations Development Program to support the ISPO standard more and the European Union has requested ISPO standards be upgraded. However, the Government now seriously risks weakening the scheme rather than strengthening it, further undermining the ISPO's credibility and the goal of gaining international recognition.

While traders and palm oil buyers globally are trying to source more NDPE palm oil from Indonesia, the Government of Indonesia, by not strengthening ISPO, will not achieve its goal of increasing international recognition for the standard and to create financial benefits for companies joining the program. Although this is a missed opportunity to make ISPO an international standard that is desirable for foreign companies, the low adoption of the standard coupled with the popularity of RSPO means that the change will have little immediate impact.

- https://eia-international.org/backtracking-reform-indonesias-government-weakening-palm-oil-standards
- http://www.valuewalk.com/2018/02/ndpe-policies-investors/

Indonesia braces for return of fire season as hotspots flare up

Fires are underway in Indonesia as the rainy season tails off, marking the return of potentially widespread burning that threatens to once again blanket parts of the country in a toxic haze and belch out huge volumes of carbon dioxide. Authorities reported that fires had flared up in the two Sumatran provinces of Riau and South Sumatra, and in the Bornean provinces of West and Central Kalimantan. Twenty-three of the 90 hotspots recorded across the country were in West Kalimantan, where thick smoke blanketed the provincial capital Pontianak and disrupted flights. In Riau, one of the hardest-hit regions in 2015, fires have razed 6.4 km^2 of land. All four affected provinces have declared a state of emergency. The state of emergency in Riau and Central Kalimantan will run until May, while in South Sumatra and West Kalimantan it will be maintained until October and December, respectively.

Authorities are particularly concerned about the return of the fire season this year, when Indonesia will host tens of thousands of athletes and visitors for the Asian Games that run from Aug. 18 to Sept. 2. The event will be co-hosted by Jakarta and Palembang, the capital of fire-hit South Sumatra. The selection of Palembang as a host city has long been deemed risky, given the propensity for fires in the region. Forty-four percent of land and forest fires in Indonesia since 2011 have occurred in the provinces of South Sumatra, Riau and Central Kalimantan, according to analysis by the World Resources Institute (WRI).

This year's dry season for the southern region of Sumatra is expected to take hold from June until September, coinciding with the Asian Games. The threat has compelled President Joko "Jokowi" Widodo to instruct all authorities to prepare for the worst. "Don't let this event be marred by haze and forest fires that will hurt [our] image and disrupt flights," he said in a meeting in Jakarta in early February. "We have to work hard so that the Asian Games run smoothly without any problems from forest fires." He also repeated a warning he first made in 2016 to fire officials from the military and the police to be on top of their game. "If there are fires in your

regions and they're not handled well, the rule is still the same: dismissal," Jokowi told the officials gathered at the meeting. Herry Purnomo, a professor at Bogor Institute of Agriculture and a researcher from the Center for International Forestry Research (Cifor), said Jokowi's threat has proved to be quite effective in reducing the number of forest fires since 2015. "The threat worked because a lot of the fires were deliberately lit by local residents who colluded with security officers. Now the police and the military don't want to be in on it anymore." But Herry said Jokowi's stern approach might have less impact on local political elites. "These local elites routinely occupy land illegally, up to 50-100 hectares, and they're not afraid of the police since they have a lot of political clout."

Fire figthers trying to extinguish a fire in a peatland forest near Taluk, Riau province, Sumatra on February 20. Photo: Indonesian Disaster Mitigation Agency (BNPB).

Some safeguards have been put in place since 2015 to prevent a repeat of the devastating fires, including a nationwide ban on clearing peatlands; the establishment of community-based fire prevention initiatives; and a requirement for companies to protect and preserve carbon-rich peatlands that fall within their concessions.

To lead the nationwide rewetting efforts, Jokowi established the Peatland Restoration Agency (BRG) in early 2016. By the end of 2017, the agency had overseen the rewetting of 2,000 square kilometers of peatland, half by itself and the other half by NGOs and companies.

Environmental activists have questioned the effectiveness of the BRG's work. This year already, there have been fire reports in at least two areas that the BRG claims to have restored. One is in Lukun village in Riau province, where fires have been burning since Feb. 9. The BRG says the fires are not in areas where it has blocked peat drainage canals, but instead are located in nearby sago plantations. The second report of fires is also in Riau, in the village of Mundam, where the BRG has built 12 canal-blocking units. As part of its wider plans, the BRG says it is in the process of checking the fire-prevention infrastructure it has already built, to gauge whether it's working as intended, BRG head Nazir Foead said. "We'll fix them immediately if there's anything broken," he told Mongabay at his office in Jakarta. "And we'll see the fire spots and how far they're located from the rewetting infrastructure that we've built. If the infrastructure is deemed insufficient, then we'll build more."

Rewetting peatland is a far more effective means of tackling fires than deploying firefighters to put out blazes once they start. The carbon-rich nature of peatland as well as the remote location of much of Indonesia's peat forests make it virtually impossible to contain the spread of fires. Firefighters sent to put out the blaze in Lukun village faced this problem too, according to Raffles B. Panjaitan, the director of fire mitigation at the Ministry of Environment and Forestry. Just to reach the location required traveling several hours by boat.

- https://news.mongabay.com/2018/02/indonesia-braces-for-return-of-fire-season-as-hotspots-flare-up/
- http://jakartaglobe.id/environment/jokowis-threat-proved-effective-prevent-forest-fires/
- https://www.sfchronicle.com/world/article/Indonesia-mobilizes-to-combat-health-damaging-12630995.php

- https://www.nst.com.my/world/2018/02/337876/indonesia-declares-disaster-alert-forest-fires-rage-sumatra-kalimantan
- https://en.tempo.co/read/news/2018/02/20/206915859/Riau-Declares-Emergency-Standby-Status-over-Land-and-Forest-Fires
- http://www.thejakartapost.com/news/2018/02/22/polluted-air-from-fires-starts-to-affect-riau-residents.html
- http://www.straitstimes.com/asia/fires-in-indonesia-could-threaten-asian-games
- https://theaseanpost.com/article/return-indonesias-forest-fires

Indonesia to lift ban on military facilities in primary forests and peatland

The Indonesian government is planning to revise a presidential instruction (Inpres) that prohibits the construction of buildings and other infrastructure, including military-related facilities, on primary forest land and peatland. Environment and Forestry Minister Siti Nurbaya Bakar said on Wednesday, February 28, that proposed revision of Inpress No. 6/2017 came in response to a request by Defense Minister Ryamizard Ryacudu. Siti said under the Inpres the government was prohibited from issuing licenses for any development in primary forests and peatland except for the government's strategic projects. "I think the [Ryamizard's] request is reasonable because defense-related facilities such as military airports are not included on the list of strategic projects."

http://www.thejakartapost.com/news/2018/03/01/indonesia-to-lift-ban-on-military-facilities-in-primary-forests.html

Indonesia to restore 140,000 ha of peatland

Indonesia's Peatland Restoration Agency (BRG) has set to restore 140,000 ha of peatland in Riau province in 2018, five times more than last year. Nazir Foead, the head of agency said his agency recovered 27,000 ha of peatland in 2017, and with the involvement of more agencies in this year, the area of restored peatland will be expanded. To realize the target, Indonesia will spend 49.5 billion rupiah (3.8 million USD) on the work. Located in Sumatra Island, Riau is often hit by forest fires. The area has about 4.8 million ha of peatland. In its long-term plan, the country plans to restore 900,000 ha of peatland in Riau.

https://en.vietnamplus.vn/indonesia-to-restore-140000-ha-of-peatland/127047.vnp

BRG has recently published a series of manuals and booklets on peatland restoration. These papers (in Bahasa) can be downloaded under https://brg.go.id/publikasi/. A recent comprehensive overview made for BRG on techniques and perspectives of rewetting, revegetation and revitalization (incl. paludiculture) is found under https://www.researchgate.net/publication/323676663_Tropical_Peatland_Restoration_Report_the_Indonesian_case (in English).

Asia Pulp and Paper's sustainability progress 'not sufficient' say NGOs

Asia Pulp and Paper (APP) has not lived up to the sustainability commitments it made five years ago, a coalition of non-government organisations (NGOs) has claimed on the anniversary of the company's Forest Conservation Policy (FCP). The Indonesia-headquartered firm committed to stop clearing natural forest on 5 February 2013, following years of campaigning by green groups. At the time, the announcement was seen as a sustainability milestone for the company. Until that day, APP had cleared more than 2 million hectares of tropical forests over 34 years of operations in Indonesia, according to a report by Eyes on the Forest.

To mark five years since the launch of the FCP, a group of 10 NGOs, including World Wide Fund for Nature (WWF), Indonesia-based Hutan Kita Institute and British advocacy group Forest Peoples Program, has issued a joint statement claiming that APP is "not yet on a sustainable track" and the progress it has made has "not been sufficient." Among their claims is that despite promising to halt deforestation, APP built one of the world's largest pulp mills at the start of last year without—according to the NGOs' calculations, which the company says are wrong—an adequate supply of plantation timber to feed it. "When the wood supply faces a crunch, we fear the company will resume clearing Indonesia's rainforests," the statement reads.

A more recent doubt cast over APP's zero-deforestation policy came in December last year, when a report by the Associated Press (AP) found that the company had been falsely claiming that some its major timber suppliers were independent when, in fact, they have close ties to APP and its parent company Sinar Mas.
One example of that is PT. Muara Sungai Landak in West Kalimantan, which has reportedly been clearing natural forest and developing carbon-rich peatlands since 2014. AP's report found that the company has links to Sinar Mas Forestry, a connection that APP denies.

APP plantation in Jambi, Sumatra. Photo: Hans Joosten.

The second criticism of APP's five-year sustainability track record is how it manages conflicts with people whose lands, forests and livelihoods have been affected by the company's expanding operations in Indonesia. APP has claimed to have resolved 42 disputes, but hundreds are believed to be outstanding, the statement reads. A third criticism centres on APP's lack of progress on a commitment it made in 2013 to restore 1 million hectares of Indonesian forest. "APP still has no plan to manage peatlands sustainably, either for economic use without peat drainage or restoration of natural vegetation, to curb APP's contribution to climate change and stop peatland subsidence that could lead to flooding," the report reads.
Finally, the NGOs suggest that there has been no independent verification of APP's progress, although consultancies such as Rainforest Alliance and The Forest Trust have produced progress reports commissioned by APP that showed mixed progress. The company has "continued to self-declare its unverified progress through its marketing campaigns," the NGOs claim.
In response, Bernard Tan, APP's managing director for global communications and Singapore country president for Sinar Mas, admitted that the company's record in sticking to its sustainability commitments has not been "perfect," without detailing exactly where APP was struggling. "Over the last five years since the launch of the FCP, APP has made significant strides in its sustainability journey. This is something that is widely recognized. This is not to say that the progress made has been perfect," Tan told Eco-Business. He said that the company notes the concerns of the NGOs, and even though some have already been addressed, is "prepared to revisit them and address these concerns in a manner that allows for progress."
The NGOs' statement include six recommendations for APP. These include disclosing data on pulp production and wood supply for an independent audit**,** publishing data on land conflicts and potential land swap areas, and inviting NGOs to observe both these processes. They also called for a plan for phasing out all drainage in plantations on peatland, and for the company to take responsibility for the peatlands it is responsible for damaging. Finally, the NGOs have called on APP to disclose all connections the company and its holding group Sinar Mas have with pulpwood concessions in Indonesia "to reveal its total environmental and social footprint."
http://www.eco-business.com/news/asia-pulp-and-papers-sustainability-progress-not-sufficient-say-ngos/

Malaysia

Joining hands to revive peatland

Equipped with shovels, spades and 600 tree saplings of tenggek burung (*Melicope lunu-ankenda*) and 30 trees of ramin melawis (*Gonystylus bancanus*), the Selangor State Forestry Department (SSFD) and Global Environment Centre (GEC) led 150 volunteers to a two-hectare degraded area of Raja Musa Forest Reserve (RMFR) in Bestari Jaya, Kuala Selangor. The mission was to re-plant the degraded area while promoting conservation of peatland and wise use of it in partnership with local community and stakeholders as well as HSBC Bank Malaysia Bhd in conjunction with Selangor State Level Celebration of World Wetlands Day 2018.

The event also saw three drones handed over by Selangor State Forestry Department director Datuk Dr Mohd Puat Dahalan to representatives of SSFD Enforcement and Forest Operation Units as well as Hulu Selangor District Forest Office. These drones will be used for forest protection and to monitor and prevent forest encroachment and peatland fire.

Speaking to the media Dr Mohd Puat said, “Preserving the peatland area does not mean we are depriving development. It is quite the opposite. Retaining, restoring and preserving this particular Selangor peatland will contribute towards making cities and towns surrounding the forest safe, resilient and sustainable in the long run. The aim of this event is to promote awareness on climate change and the urgent need to reduce greenhouse gas emissions through low-emission development and sustainable peatland and forest management.”

https://www.thestar.com.my/metro/metro-news/2018/03/01/joining-hands-to-revive-peatland-volunteers-plant-tree-saplings-in-raja-musa-forest-reserve/#47Zdq4zQxPDFTjyR.99

Australasia

New Zealand

Dramatic maps released showing state of crisis in nation's wetlands

The huge degradation of New Zealand's wetlands has led to a crisis situation, says Forest & Bird, which used World Wetlands Day to urge regional councils to provide more protection. The environmental group has released maps, based on historic soil analysis, that show the extent of wetland loss since human settlement began and the few remnants that are left. Its freshwater advocate Annabeth Cohen said 90 per cent of pre-settlement wetlands had been destroyed by agricultural and urban development. "And we aren't doing a very good job of protecting what's left." "The trouble is, our original wetlands have been drained for agriculture, and the now rare remnants can't cope with the huge amounts of nutrient and sediment-loaded runoff, which degrades the quality of the water, making it very difficult for whitebait, eels, and other native freshwater species to survive there."

Before human occupation, New Zealand had an estimated 2.47 million hectares of wetland ecosystems. Today it has less than 250,000ha. New Zealand has six wetlands recognised internationally by the Ramsar Convention. These were the Firth of Thames, Whangamarino and Kopuatai Peat Dome in Waikato; Farewell Spit in Nelson; Awarua Wetland/Waituna Lagoon in Southland; and the Manawatu River Estuary.

https://www.stuff.co.nz/environment/101092150/dramatic-maps-released-showing-state-of-crisis-in-nations-wetlands

Table: Wetland loss in New-Zealand

	Pre-human	Now	%
Nelson	769	6	99.2
Gisborne	67,008	936	98.6
Hawke's Bay	113,362	2458	97.8
Wellington	122,804	2774	97.7
Manawatu	264,511	6983	97.4
Auckland	57,851	2639	95.4
Taranaki	40,278	3046	92.4
Northland	258,451	14,114	94.5
Bay of Plenty	43,089	3304	92.3
Waikato	356,516	28,226	92.1
Southland	450,984	47,231	89.5
Canterbury	187,115	19,851	89.4
Marlborough	12,785	1545	87.9
Tasman	26,570	5219	80.4
West Coast	358,182	84396	76.4
Otago	110,804	27,050	75.6
TOTAL	**2,471,080**	**249,776**	**89.9**

Europe

Belarus

The five-year UNDP-GEF project "Conservation-oriented management of forests and wetlands to achieve multiple benefits" started in November last year with the aim to at restore habitats of globally threatened species (Aquatic warbler, greater spotted eagle, great snipe, black-tailed godwits) and to implement conservation-oriented and financially self-sufficient management of forest and wetland ecosystems in Belarus. The total budget of the project is $4.3 million. On 27 February the kick-off workshop brought together partners and stakeholders. "Forest and wetland ecosystems of Belarus are of global importance for unique biodiversity. The conservation of these ecosystems is important for reducing the rate of biodiversity loss at the global, regional and national levels. The five-year Wetlands program includes a number of interesting projects that do not repeat the previous ones but are based on their results and problematic aspects," Nikolai Svidinsky of the executing Ministry of Natural Resources and Environmental Protection said. Sustainable use of resources is very important for the balance of environmental and economic interests, he noted. Some activities will be implemented in synergy with similar initiatives in Europe. Project Manager Aleksei Artyushevsky explained that the project provides for some changes to the environmental legislation (including the long-awaited law on protection and use of wetlands), conservation of valuable tracts of forests, implementation of sustainable methods to the use and processing of peatland biomass, the improvement of forage lands for the free-roaming micro-population of the European bison, restoring the habitats for wetland birds, wetlands and grasslands, ecotourism development and so on. The project will cover more than a dozen of protected natural areas: Turov Lug and Pogost, Nalibokskaya Pushcha, Zvanets and Sporovsky, Zhada, Servech and others.
http://eng.belta.by/society/view/undp-gef-wetlands-project-to-create-conditions-for-conservation-of-endangered-species-of-birds-109645-2018/

An IMCG delegation underway in Sporovsky, Belarus (2014). Photo: Hans Joosten.

Ireland

Commission takes Ireland back to the Court about Derrybrien and proposes fines

The European Commission is taking Ireland back to the Court of Justice of the EU for its failure to comply with part of the Court judgement of 3 July 2008 (C-215/06, Commission v Ireland), by not properly carrying out an

environmental impact assessment for the Derrybrien wind farm in County Galway in Ireland. Although the Derrybrien wind farm was constructed already more than 13 years ago, no sufficient impact assessment has been carried out. Such impact assessment of certain public and private projects on the environment is required under the EU rules before construction is allowed to commence. The scale of the development and its sensitive moorland hilltop location means that its operation continues to have an impact locally. The site could still benefit from mitigation and remediation measures, but these can only be identified after an environmental impact assessment has been done. Ireland must, therefore, ensure that this happens.

The Court of Justice of the EU ruled on 3 July 2008, amongst others, that Ireland had failed to carry out an environmental impact assessment for the 70 turbine wind farm – the largest in Ireland, and, at the time of judgment, one of the largest in the EU. Its construction required the removal of large areas of forest and extraction of peat up to 5.5 metres deep on the top of the Cashlaundrumlahan Mountain, causing a 2km environmentally devastating landslide in October 2003. The Commission is requesting the Court of Justice of the EU to impose a minimum lump sum payment of €1 685 000.00 (€1 343.20 per day). The Commission is also proposing a daily penalty payment of €12 264.00, if full compliance is not achieved by the date when the Court issues its ruling. The final decision on the penalties rests with the Court of Justice of the EU.

http://europa.eu/rapid/press-release_IP-18-355_en.htm

The Derrybrien bogslide in 2004. Photo: Richard Lindsay/Olivia Bragg.

Netherlands

Restoring the natural capital of Dutch peatlands

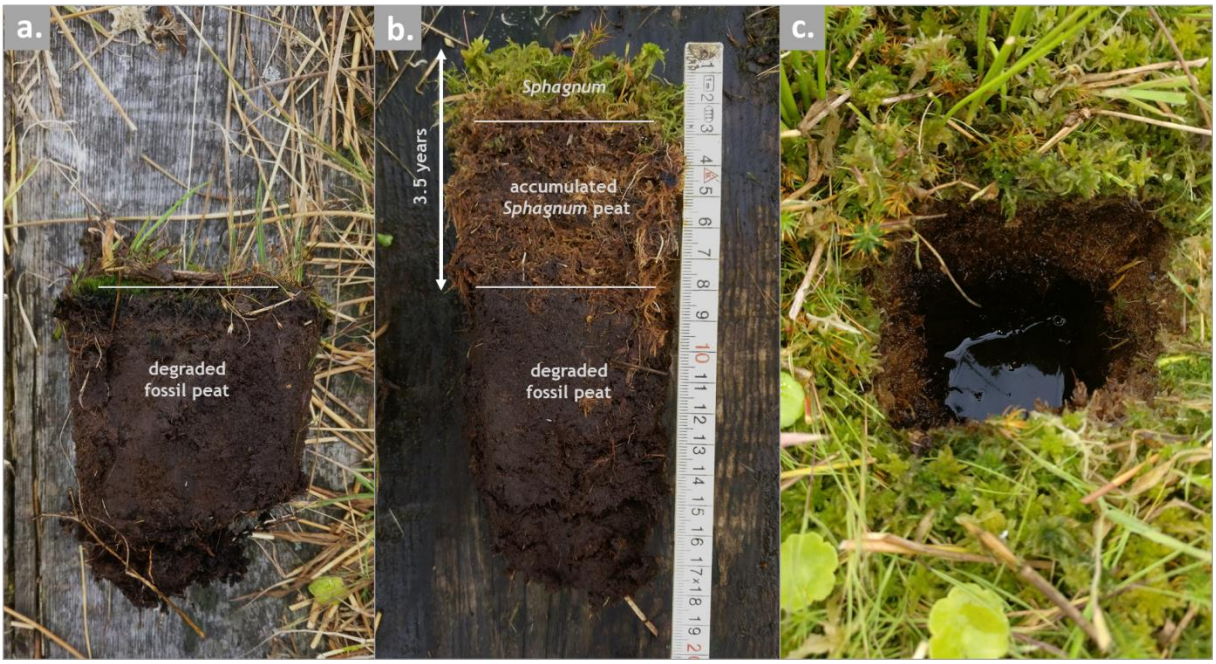
Bas van de Riet [1], Alfons Smolders [1,2] & Leon Lamers [1,2] (b.vanderiet@b-ware.eu)

Globally, large-scale drainage of peatlands is causing severe socio-economic and environmental issues as a result of increased greenhouse gas emission, loss of carbon and water storage capacity, disturbed climate regulation function, biodiversity loss, soil degradation, water pollution and subsidence. Practical tools providing insight into the real economic value of intact, wet peatlands and (fossil) peat deposits and their societal services are urgently needed, in order to calculate the socio-economic costs of peatland drainage and define more sustainable alternatives.

For the Dutch government, it will be a major challenge to address these peatland issues in the coming decades.

To be able to formulate strategic objectives and define appropriate measures, officials responsible for the management and policy of peatland areas should be provided with correct information. For the Netherlands, the Atlas of Natural Capital provides geographical information about ecosystem services. This website is an initiative of the Dutch Ministry of Infrastructure & Environment (currently Ministry of Infrastructure & Water Management) in close cooperation with the Dutch research institutes Alterra-Wageningen University (WUR), Deltares, Wageningen Economic Research (LEI) and the National Institute of Public Health & the Environment (RIVM). The atlas displays a suite of maps to provide policy makers, nature and water managers, scientists and citizens with information about the Dutch natural capital, and to facilitate political decision making with respect to its sustainable use.

Unfortunately, the map providing information about (modelled) soil carbon balance values for the Netherlands shows serious flaws. We were really puzzled by the fact that this map shows that the net carbon sequestration in the soils of most of the areas, including the severely drained and subsiding peat meadow areas, show positive values, 'particularly in grassland areas'. In the Netherlands we have over 220,000 ha of drained organic soils, most of which are in use for intensive dairy farming. For the production of milk, butter and cheese the 60-90 cm top layer of these peat meadows are drained, causing the emission of 4.7 Mt CO_2-eq annually, which is a conservative estimate. This equals the emission of more than 2 million cars, and is twice as high as the sequestration by all ecosystems in the Netherlands. Although these drained peatlands cover only 10% of the Dutch agricultural area, they generate a quarter of the total emission of the complete Dutch agricultural sector. An alternative, more climate-smart management of Dutch peatlands is therefore urgently needed. This is not only important for the achievement of the Paris Agreement targets, but also essential to prevent further subsidence (currently around 1 m per century) because 26% of the Dutch terrestrial territory is already below sea level, and 55% is susceptible to flooding. The urgency to take action is even more prominent as it has become clear that climate change will exacerbate these problems, because peat oxidation rates are believed to increase by more than 50%, while simultaneously sea level rise is projected to be one meter by the end of this century. Fortunately, rewetting helps solving most of the problems associated with peatland drainage.



The project Omhoog met het Veen *(*Add Mire*) shows that even for severely drained agricultural peat soils (a.) it is possible to re-establish a living, peat forming vegetation (b.). Already 3.5 years after rewetting the vegetation and newly formed peat covering the degraded peat layer act as a spongy wet cover that includes a range of mire species (c.).*

As peatland scientists, it provides us with hope that several Dutch initiatives, such as the recently finished project *Omhoog met het Veen* (*Add Mire NL*), show that even for severely drained agricultural peat soils it is possible to re-establish a living, peat forming vegetation. Already 3.5 years after rewetting the vegetation and newly formed peat covering the degraded peat layer act as a new spongy wet cover that included a range of mire species. Furthermore paludiculture, the cultivation of crops on rewetted agricultural peatlands, has been shown to be an economically attractive and sustainable alternative for drainage based dairy farming. However,

in order to apply this good news, policy makers need to have access to proper information about the current large-scale loss of our natural capital in these areas. The exclusion of information about the huge carbon emissions caused by the current, large-scale agricultural drainage of peat deposits is not only unfortunate, but also misleading, and hampers policy-makers, nature and water managers, farmers and scientists to define wiser, more sustainable strategies for the management of Dutch peatlands.

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Russia

Galkina Readings

Tatiana Minayeva (Tatiana.minayeva@wetlands.org)

The beginning of February was rich on peatland events also facilitated through World Wetland day. February 5-7, the meanwhile traditional conference in memory of the great Russian mire scientist, geobotanist and geographer Ekaterina Alekseevna Galkina was held in the Komarov Botanical Institute in St Petersburg. The tradition started in 2007 as the meeting of the Mire branch of the Russian Botanical Society devoted to the 110th anniversary of prof. Galkina. Since that, the number of attendees has been growing every year and the event turned into the annual conference of Russian mire scientists. These "Galkina Readings", as they are called, took initially one day, than two and finally three days to host all presentations. From the meetings in 2010, 2017 and 2018 proceedings have been published, which can be downloaded from https://www.binran.ru/science/publikatsii/materialy-konferentsiy/galkinskie-chteniya/

Three IMCG Board members at the Galkina Readings in St. Petersburg: Tatiana Minayeva (2x), Hans Joosten (l) and Tapio Lindholm. Photo: Alexandra Zolotaryova.

In 2017 the first "Russian speaking" foreigners appeared in the conference and in 2018 the conference became international with Marika Kose (Estonia), Tapio Lindholm (Finland) and Hans Joosten (Germany) appearing as guests. IMCG honorary member Tatiana Yurkovskaya, a student of prof. Galkina, opened and led the first part of the conference, with her tremendous wisdom and knowledge. Hans Joosten mentioned in his introduction that the Russian mire school is a real treasure and the "Galkina readings" a great opportunity for scientists to share and develop the knowledge and tradition of this school. Tapio Lindholm stated to be impressed by the many young scientists involved and stressed the high significance of having a platform where young scientists can present and share. The pictures in this article are from the Byelorussian photographer and journalist Alexandra Zolotaryova , more of her pictures from the event can be found here:
https://drive.google.com/drive/u/0/folders/1s7_t5yXXtP3oRdEGezef7WGlPkkHIjD9

Oleg Kuznetsov (Petrozavodsk) chairing the session was happy with the high level of the presentations. Photo: Alexandra Zolotaryova.

Hans Joosten used his visit to St Petersburg to have a long interview with Tatiana Yurkovskaya (1930) about the siege of Leningrad (1941-1944). During the blockade, Ekatarina Galkina, who had been working with aerial photography for geobotanical mapping since the 1930s, used her remote sensing knowledge for peatland pattern recognition to solve military and civil supply problems, i.e. to identify mire parts that were impassable (for troops) or accessible (to supply the starving city).

Tatiana Yurkovskaya telling about her experiences during the Вели́кая Оте́чественная война́ (Great Patriotic War) and about the work of Galkina and her team in these extremely difficult years. Photo: Hans Joosten.

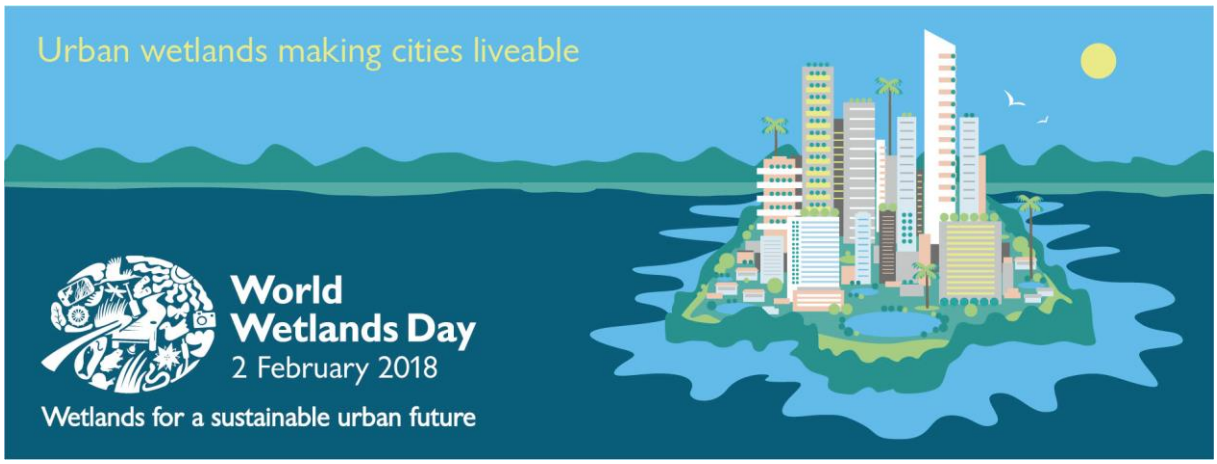
After the war (1946) she published a classification of mire landscape structures visible from the air with three scale levels: (i) микроландшафт ('microlandscape', i.e. the level of 'mire site'), (ii) месоландшафт ('mesolandscape', i.e. the level of 'mire massif'), and (iii) макроландшафт ('macrolandscape'), i.e. the level of a 'complex of mire massifs'). Galkina's ideas were widely accepted among Soviet Union mire researchers and formed the basis of the 'multi-level' approach in Russian mire science.

Hans Joosten, studying the long-term secret 1941 PhD dissertation of Ekatarina Galkina in the library of Komarov Botanical Institute, St. Petersburg, Russia. Photo: Olga Galanina.

Peatlands in unusual environments…

Tatiana Minayeva (Tatiana.minayeva@wetlands.org)

World Wetland day of 2018 was devoted to Urban Wetlands. And that is remarkable and very timely. It is not very difficult to convince rural people that wetlands, and especially peatlands are useful. But it is a great challenge to convince real city lovers to become mire-lovers as they consider mires as harmful dangerous habitats full of mosquitoes. We made two attempts to attract city people to mires in one of the largest megapolises of the World: Moscow with an estimated 17 million inhabitants, i.e. more than 10 % of the Russian population.



The supreme point of city people to meet nature is the zoo. Personally, I hate zoos. In childhood, while reading the humorous books of Gerald Durrell, I suffered each time when he described how he had captured an animal. Anyhow, Moscow zoo has a very nice initiative: the public lecture (lectorium) http://www.moscowzoo.ru/education/public-lectures/. As a matter of course, the dominant topics of the lectures are animals. In 2017, however, the Russian Zapovednik (strict protected areas) system had its 100th anniversary, so several lectures were devoted to protected areas. And we decided to try mires. We announced the lecture for the 1st of February, i.e. just before World Wetlands Day, without any expectation. But suddenly we had an audience of 60 people of real mire fans with plenty of questions. On a population of 17 million, 60 persons is not much, but considering the outcome of our earlier sociological study, which demonstrated a completely negative attitude of people in Russia towards mires, this was a very good result.

Tatiana performing in the Moscow Zoo. Photos: Lera Poslavska.

Our second offer was the International Investment Bank (IIB). Wetlands International cooperates with IIB in the implementation of the project “Restoring peatlands in Russia”. The bank provided a grant of 70,000 EUR for peatland restoration. We suggested the Bank to educate its staff and explain why they are wasting their money to restore muddy and wet habitats.

Tatiana Minayeva (l), Irina Kamennova and Andrey Sirin and an almost full round table from the bank side. Photo: International Relations and Communication Department, International Investment Bank.

Our hosts invited their neighbours and partners. And it was their lunch time. People were listening, asking numerous questions and the meeting lasted two hours instead of the planned one. I do not say that all hearts of all bankers are now in the peatland but the President of IIB asked us how he could help. And this is not bad news at all for peatland restoration capacity in Russia.
https://iib.int/ru/articles/kak-pomoch-legche-dyshat-vtorym-legkim-planety-otvet-prozvuchal-na-ekologo-prosvetitelskom-seminare

International team of bankers listening to information on peatlands. Photo: International Relations and Communication Department, International Investment Bank.

United Kingdom

Whaap keeps thriving in the isles despite decline in Scotland

Curlews in Shetland are bucking a national declining trend, according to isles research. Paul Harvey, natural heritage officer at Shetland Amenity Trust said the Shetland population of breeding waders is holding up pretty well. Figures from Scottish Natural Heritage's (SNH) Index of Abundance for Scottish Terrestrial Breeding Birds, has shown 10 of 17 upland species fell in numbers between 1994 and 2016 in Scotland. Breeding curlews were down 62%, golden plover 43% and lapwing down 63%. Harvey said that in Shetland redshank and lapwing showed about 10% decline since 2002, the golden plover may also have seen "maybe a slight decline". There was, however, no indication that the curlew was in decline in Shetland, it might even have increased.

According to the trust there are about 2,300 breeding pairs of curlews in the isles, 1,170 pairs of redshanks, 1,450 pairs of golden plovers and 1,740 pairs of lapwings. "Everyone knows Shetland is fantastic for seabirds, but actually we've got fantastic waders as well," said Harvey. Part of the reason, he said, was the difficulty to have very intensive agricultural schemes because of relatively poor soils and the distance from the mainland. Furthermore many crofters have gone into agri-environmental schemes, which by and large have helped the environment. http://www.shetlandtimes.co.uk/2018/02/25/whaap-keeps-thriving-isles-despite-decline-scotland

Supporting sustainable and healthy peatlands after Brexit

In planning the UK's future arrangements after Brexit, the IUCN UK Peatland Programme seeks to ensure that the importance of peatlands is fully reflected in decisions affecting the conservation and management of the natural environment. To suggest a course of action, the programme has developed ten recommendations for supporting healthy and sustainable peatlands after Brexit: Healthy and Sustainable Peatlands After Brexit (1.33 MB).

North-America

USA

How to anchor a giant floating bog?

Floating islands have fascinated human beings for thousands of years. But the residents of Crow Wing County, Minnesota, have had about enough of their floating island. “The wild beast of North Long Lake,” as one person described it to a local TV news crew, broke loose from the shoreline last fall. Heedless of property lines and proper decorum, it caromed around the lake for about three weeks before coming to rest, leaving behind crumpled docks and mangled boat lifts. For now it is harmless, frozen in place. As the spring thaw approaches, the residents who live around North Long Lake are gearing up once more to deal with their beast.

Floating islands are more common than one would think. “They’re really all over,” says Chet Van Duzer, who wrote a 400-page bibliography on floating islands. They are found on six of the seven continents. People have grazed cattle on them, fished through them, farmed on them, even created religious ceremonies around them. But Minnesota residents regularly ask the state Department of Natural Resources (DNR) for permission to move floating bogs away from their homes and stake them down elsewhere. But they’re never this big,” says Kevin Martini, an aquatic plant management specialist working for the agency

The North Long Lake Association and the American Legion, whose summer camp was the start of the bog’s journey, agreed to share the cost of dealing with the bog. But early estimates were beyond either organization’s means. Destroying the bog would cost as much as half a million dollars, bids to move it came in around $100,000. So the interested parties decided they would take on the bog themselves. The first question was “Can we blow it up?”, but the DNR demurred. So the group has devised an elaborate plan to move it, as soon as the lake thaws.

To move the bog a “necklace” out of logs and chains is being built to wrap around the bog, allowing tractors equipped with poles to push from the shore and boats in the lake to pull. The boats will rotate the bog 180 degrees, away from the swimming beach. Then the team will fix the bog in place. Chains will encircle the rootballs of fallen trees, snake across the bog on top of plywood planks, and hang off the end into the water, anchored by massive steel beams. Eventually, the team hopes, the bog will root itself once more and reattach to the shoreline.

Cost of the operation are estimated to be between $5,000 and $10,000. The outboard motor company Evinrude has agreed to donate 20 boats to the effort. Manpower won’t be a problem. The American Legion in Minnesota has 73,000 members. “You put a bunch of old veterans together, they can move a mountain,” Randy Tesdahl, the head of the American Legion, said. Whether they can move a bog, however, remains to be seen…

https://www.atlasobscura.com/articles/floating-island-bog-crow-wing-county-minnesota?

Peatland conservation relevant papers February 2018

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1. Geographic variation in Sundew (*Drosera*) leaf colour: plant–plant interactions counteract expected effects of abiotic factors: http://onlinelibrary.wiley.com/doi/10.1111/jbi.13141/abstract
2. Methane feedbacks to the global climate system in a warmer world: http://onlinelibrary.wiley.com/doi/10.1002/2017RG000559/full
3. Rewetting degraded peatlands for climate and biodiversity benefits: Results from two raised bogs: https://www.sciencedirect.com/science/article/pii/S0925857418300521
4. Controls on boreal peat combustion and resulting emissions of carbon and mercury: http://iopscience.iop.org/article/10.1088/1748-9326/aa9ea8
5. The economics of peatland restoration: https://www.tandfonline.com/doi/full/10.1080/21606544.2018.1434562
6. Keep your head high: skulls on stakes and cranial trauma in Mesolithic Sweden: https://www.cambridge.org/core/journals/antiquity/article/keep-your-head-high-skulls-on-stakes-and-cranial-trauma-in-mesolithic-sweden/39BD3070DCC745A9CBAB1DF52FEC2782
7. Contemporary mobilization of legacy Pb stores by DOM in a boreal peatland: https://pubs.acs.org/doi/abs/10.1021/acs.est.7b06577

8. The distribution and migration of sodium from a reclaimed upland to a constructed fen peatland in a post-mined oil sands landscape: https://www.sciencedirect.com/science/article/pii/S004896971830651X
9. Is Indonesian peatland loss a cautionary tale for Peru? A two country comparison of the magnitude and causes of tropical peatland degradation: https://link.springer.com/article/10.1007%2Fs11027-018-9790-3
10. 8800 years of high-altitude vegetation and climate history at the Rutor Glacier forefield, Italian Alps. Evidence of middle Holocene timberline rise and glacier contraction: https://www.sciencedirect.com/science/article/pii/S0277379117310430
11. Late-Holocene vegetation dynamics in response to a changing climate and anthropogenic influences – Insights from stratigraphic records and subfossil trees from southeast Lithuania: https://www.sciencedirect.com/science/article/pii/S027737911730985X
12. Impact of the Little Ice Age cooling and 20th century climate change on peatland vegetation dynamics in central and northern Alberta using a multi-proxy approach and high-resolution peat chronologies: https://www.sciencedirect.com/science/article/pii/S0277379117306431
13. Peatland *Acidobacteria* with a dissimilatory sulfur metabolism: https://www.nature.com/articles/s41396-018-0077-1
14. Post-thaw variability in litter decomposition best explained by microtopography at an ice-rich permafrost peatland: https://www.tandfonline.com/doi/full/10.1080/15230430.2017.1415622
15. Demonstrating community-based hydrological and ecological restoration of peatlands in Mongolia (final report): https://de.scribd.com/document/371829657/MON-PDA-Demonstrating-Community-Based-Hydrological-and-Ecological-Restoration-of-Peatlands-in-Mongolia-Final-Report
16. Network Monitoring Rewetted and Restored Peatlands/Organic Soils for Climate and Biodiversity Benefits (NEROS): http://www.epa.ie/pubs/reports/research/biodiversity/Research_Report_236.pdf
17. Restoration of wetlands on the Agulhas Plain is unlikely to generate peat: https://www.sajs.co.za/article/view/4348
18. UAV remote sensing can reveal the effects of low-impact seismic lines on surface morphology, hydrology and methane (CH_4) release in a boreal treed bog: http://onlinelibrary.wiley.com/doi/10.1002/2017JG004232/full
19. Distributions of geohopanoids in peat: Implications for the use of hopanoid-based proxies in natural archives: https://www.sciencedirect.com/science/article/pii/S0016703718300036
20. Vegetation dynamics and fire history at the southern boundary of the forest vegetation zone in European Russia during the middle and late Holocene: http://journals.sagepub.com/doi/abs/10.1177/0959683617721331
21. Evolution of peatlands in the Mu Us desert, Northern China, since the last deglaciation: http://onlinelibrary.wiley.com/doi/10.1002/2017JF004413/abstract
22. Methane fluxes and pore water dissolved organic carbon dynamics from different preatlands in the Pastaza-Marañon Basin of the Peruvian Amazon: http://digitalcommons.mtu.edu/cgi/viewcontent.cgi?article=1647&context=etdr
23. Characterization of wildfire-induced aerosol emissions from the Maritime Continent peatland and Central African dry savannah with MISR and CALIPSO aerosol products: http://onlinelibrary.wiley.com/doi/10.1002/2017JD027415/full
24. Differential response of carbon cycling to long-term nutrient input and altered hydrological conditions in a continental Canadian peatland: https://www.biogeosciences.net/15/885/2018/
25. Hydrogeomorphology, floristics, classification and conservation values of the little-known montane mires of the upper Cudgegong River catchment, Central Tablelands, New South Wales: https://www.rbgsyd.nsw.gov.au/getattachment/Science/Scientific-publications/Cunninghamia/Cunninghamia18-BAIRD-BENSON-Cudgegong-mires.pdf.aspx?lang=en-AU
26. Tropical peatland restoration report: The Indonesian case: https://www.researchgate.net/publication/323676663_Tropical_Peatland_Restoration_Report_the_Indonesian_case
27. A review of techniques for effective tropical peatland restoration: https://link.springer.com/article/10.1007/s13157-018-1017-6
28. Methane oxidation by endophytic bacteria inhabiting *Sphagnum* sp. and some vascular plants: https://link.springer.com/article/10.1007/s13157-017-0984-3
29. Forecasting responses of a northern peatland carbon cycle to elevated CO_2 and a gradient of experimental warming: http://onlinelibrary.wiley.com/doi/10.1002/2017JG004040/abstract
30. Quantitative reconstruction of peatland hydrological regime with fossil testate amoebae communities: https://istina.msu.ru/publications/article/102879575/
31. Palaeoecological investigations and 230Th/U dating of the Eemian Interglacial peat sequence from Neubrandenburg-Hinterste Mühle (Mecklenburg-Western Pomerania, NE Germany): https://www.sciencedirect.com/science/article/pii/S1040618216302555

32. Modern pollen–vegetation relationships in traditionally mown and unmanaged boreal rich-fen communities in central Norway: https://www.sciencedirect.com/science/article/pii/S0034666717301203
33. Inventory, value and restoration of peatlands and mires: recent contributions: http://www.bizkaia.eus/home2/archivos/DPTO9/Temas/Life/SEMINARIO_FINAL/MONOGRAFICO%20TURBERA/Inventory,value_and_restoration_of_peatlands_and_mires_recent_contributions.pdf

The battle between sea and mire: the Sehestedter Außendeichsmoor in Germany. Photo: Hans Joosten.