

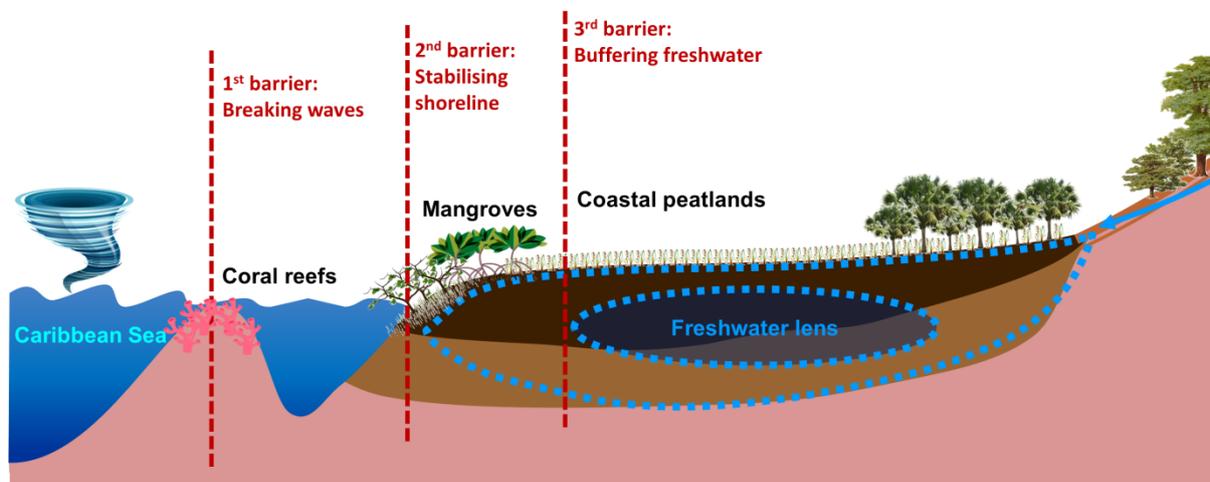
## Strategic environmental dialogues on Caribbean Coastal peatlands

Underlining the importance of peatlands for biodiversity, climate change mitigation, coastal protection, and human livelihoods

*A project by Michael Succow Foundation, Partner in the Greifswald Mire Centre*

### **Background:**

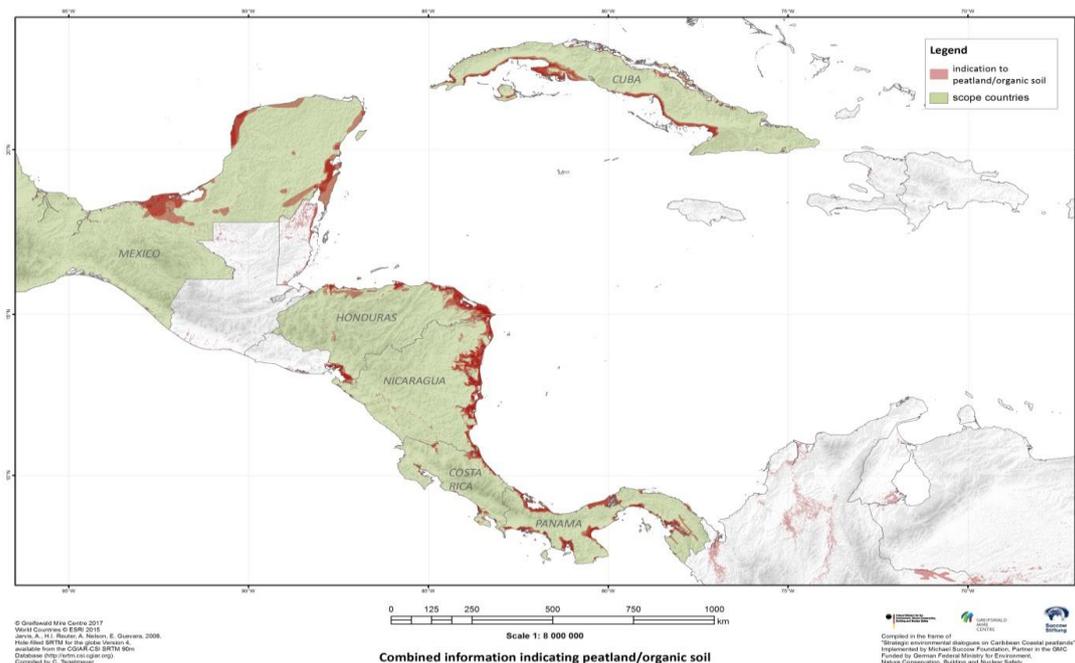
Peatlands are a type of wetland where organic matter is accumulated as peat. Coastal peatlands in the Caribbean provide important ecological functions beyond declining **habitats for endangered biodiversity** and **sequestration and long-term storage of carbon**. Intact coastal ecosystems including coastal peatlands fulfil **important roles in the protection against extreme weather events** (e.g. hurricanes, which have become more frequent and strong in times of climate change). Coral reefs break the biggest waves in front of the shore, mangroves stabilize the coast line's soils with their roots, and coastal peatlands finally act like buffer zones between salt and inland freshwaters. Peatlands **store freshwater** like huge sponges, **blocks salt water intrusion** in the aquifers and provide permanent water supply throughout the year for local communities, bridging periods of water shortage in the dry seasons. Therefore, they are a **key ecosystem in climate change adaptation**.



*Natural Caribbean coastal ecosystems act as natural barriers in coastal protection*

**Draining coastal peatlands implies emission of CO<sub>2</sub>** to the atmosphere due to oxidation of peat layers and dissolving of underlying carbonates typical for Caribbean mires. This process is fast under tropic climate condition and imposes the risk of catastrophic fire events during droughts. Furthermore, decomposition of peat soils leads to **subsidence** which implicates a risk of **irreversible land loss** as sea level is rising in contrast to dropping peatland surface. Last but not least, the beauty of mire landscapes is a significant asset for future development of **eco-tourism** in the region.

However, there are indications that many of the coastal peatlands in the Caribbean region are in unfavourable conditions and under threat of degradation. The Michael Succow Foundation, partner in the Greifswald Mire Centre, has developed a series of maps based on different information source, such as soil types and vegetation cover, to indicate the probability of occurrence of peatlands in six countries in Central America (Map below). Therefore, we have identified the opportunity to work together with local stakeholders for the protection and restoration of the Caribbean coastal peatlands. Hence, these environmental dialogues with experts, local stakeholders and decision-makers from political, academia and private sectors are intended to increase the understanding of mire ecology and the ecosystem services they provide to the Caribbean societies.



*Probability of occurrence of coastal peatlands in six countries of the Caribbean.*

### **Activities of the project:**

1. Dialogue preparation: Desktop inventory of peatlands in the Caribbean

A preliminary analysis of peatlands' distribution in the Caribbean countries was developed, using existing information in the Global Peatland Data Base, hosted by the Greifswald Mire Centre, local soil and vegetation cover maps. To strengthen this analysis, existing gaps are being identified and filled as far as possible in consultation with regional partners, scientific publications, official statistical datasets, expert interviews, etc.

2. Expert dialogues: Round tables in key countries

In selected key countries, the dialogue and awareness raising on importance of peatlands will be started among relevant academic and practicing experts. Specialist's round tables on the importance of coastal peatlands for the Caribbean key countries for biodiversity, climate

change mitigation, coastal protection, and human livelihoods will be conducted with scientists and practitioners in the fields of ecology and conservation biology, geography, agriculture, and land use economics.

Two round tables have taken place in Panama and Costa Rica, and one more will follow at the International Wetland Symposium 2017 (XI Simposio Internacional “Humedales 2017”), hosted from 3<sup>rd</sup> to 6<sup>th</sup> November 2017 in the Ciénaga de Zapata Biosphere Reserve, Cuba.

### 3. Discuss priorities for restoration action

Based on the information gathered and discussed with experts and stakeholders during the round tables, as well as the symposium, a list of Caribbean peatlands at risk will be prepared, naming the most threatened peatlands in the Caribbean region and estimating potential CO<sub>2</sub> emissions by drainage and potential land surface loss. Subsequently, it will be analysed the conservation, restoration and development potential of peatland areas to provide ecosystem services (climate change mitigation, coastal protection, biodiversity etc.) for selected case sites.

### 4. Political dialogue

The results of the process and priority actions for sustainable development, climate change mitigation and adaptation will be presented to Caribbean decision makers in a high level political meeting. It will be discussed how coastal peatlands could be integrated in the sustainable development goals (SDGs) 15 ‘Life on Land’ and into national climate strategies, nationally determined contributions (NDCs) under the Paris Agreement and National Adaptation Programmes of Action (NAPAs). Also questions of climate financing for peatland related measures e.g. via the Adaptation Fund or Green Climate Fund will be touched.

### **About the Michael Succow Foundation:**

The Michael Succow Foundation (MSF) is involved in several large-scale peatland restoration projects and the implementation of paludiculture worldwide. Knowledge transfer and capacity building are key activities of the foundation. It has vast expertise in the establishment and management of protected area with a focus on Biosphere Reserves. MSF is partner in the Greifswald Mire Centre (GMC), an international renowned knowledge centre for peatlands with global networks and cooperates closely with Greifswald University, leading research institute in peatland science. The GMC host the Global Peatland Database, the biggest database for peatland inventories worldwide and develops methodologies for remote sensing approaches towards the delineation of peatlands and their status.

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