



# Indonesia Peatlands Network (IPN)

## Introduction

Peatland ecosystems provide a wide range of ecosystem services, particularly as major carbon storage due to the accumulation of organic materials over millennia. The waterlogged conditions hinder full decomposition, allowing for peat surface accretion and the formation peat domes. The system also retains large amount of fresh water – another service that peatlands can provide.

More than 50% of tropical peatlands occur in Indonesia. However, the extent and depth of Indonesian peatlands are highly uncertain, with multiple competing definitions and maps. As of today, the frequently referenced map of Wetlands International-Indonesia Program estimates 20.9 Mha and the Ministry of Agriculture estimates 14.9 Mha. As a result of the the uncertainty in peat depth, the estimate of peatland ecosystems carbon stocks vary dramatically.

In the midst of large uncertainties in terms of data and information, Indonesian peatlands are undergoing massive conversion, resulting in large amount of greenhouse gas (GHG) emissions into the atmosphere. The associated draining of peatlands and the use of fire for land clearing exacerbate GHG flux and biodiversity losses.

The Indonesia Peatland Network (IPN) is a scientific collaborative effort initiated under the US-Indonesia Comprehensive Partnership by the Center for International Forestry Research (CIFOR), US Department of State and the US Forest Service. The overall goals of the network are (i) to improve academic capacity to better understand tropical peatlands and (ii) to raise awareness among policymakers and other stakeholders on the importance of peatlands for climate change mitigation and adaptation.



IPN internship students installed water table monitoring station in degraded peatlands in Central Kalimantan (Photo by Daniel Murdiyasar/CIFOR)

## Activities

To achieve these goals, IPN has three major activities as described below:

### 1. Internship

IPN provides scholarships for Indonesian students to participate in internship in various activities that allow them to work with senior researchers and organizations on issues related to peatlands. In 2014, there were more than 20 grants awarded to undergraduate students from five major universities in Indonesia, including Bogor Agricultural University, Bogor; Riau University, Pekanbaru; Tanjung Pura University, Pontianak; Sebelas Maret University, Solo and Gadjah Mada University, Yogyakarta. Topics, such as GHG emissions, peat fires and vulnerability, ecosystem production, peatlands mapping and management are among the area of interests.

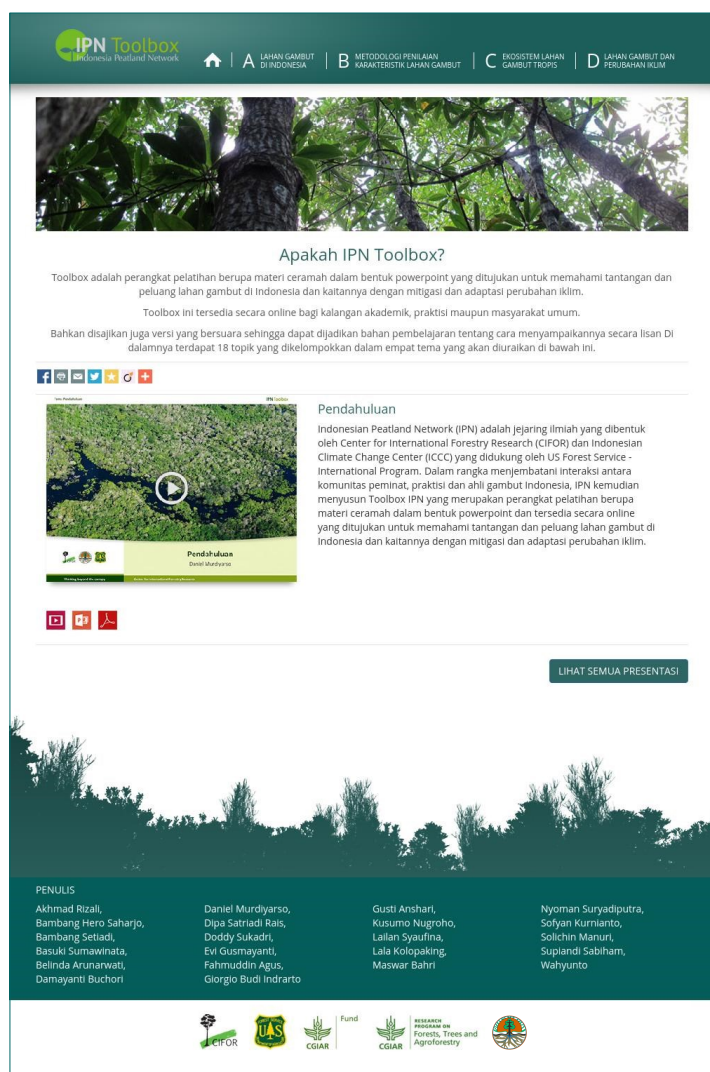
### 2. Publication grants

The grants were awarded to successful publications in peer-reviewed journal. The papers have to be related to Indonesian peatlands. To date there are five papers were supported under IPN grants. The awardees were Indonesian Master and PhD students studying in Indonesia or abroad. Among these successful applicants are Indonesian graduate students in Wageningen University, the Netherlands and Australian National University.



### 3. IPN Toolbox

IPN Toolbox is a compendium of e-learning modules designed to understand processes, trends, opportunity and challenges of Indonesian peatlands for climate change adaptation and mitigation. It covers a wide range of information on theories, methodologies and practices related to Indonesian peatlands. The Toolbox has 18 topics and grouped into five themes, namely Indonesia Peatlands Status, Methodology of Peat Characteristics Assessment, Tropical Peatland Ecosystems, and Peatlands and Climate Change. IPN Toolbox materials were authored by highly respected Indonesian peatland experts. The toolbox is relevant for a broad audience, with simple language that can be understood by academics, practitioners and students. IPN Toolbox can be accessed at [www.cifor.org/ipn-toolbox](http://www.cifor.org/ipn-toolbox).



**IPN Toolbox**  
Indonesia Peatland Network

A LAHAN GAMBUT DI INDONESIA    B METODOLOGI PENILAIAN KARAKTERISTIK LAHAN GAMBUT    C EKOSISTEM LAHAN GAMBUT TROPIS    D LAHAN GAMBUT DAN PERUBAHAN IKLIM

### Apakah IPN Toolbox?

Toolbox adalah perangkat pelatihan berupa materi ceramah dalam bentuk powerpoint yang ditujukan untuk memahami tantangan dan peluang lahan gambut di Indonesia dan kaitannya dengan mitigasi dan adaptasi perubahan iklim.

Toolbox ini tersedia secara online bagi kalangan akademik, praktisi maupun masyarakat umum.

Bahkan disajikan juga versi yang bersuara sehingga dapat dijadikan bahan pembelajaran tentang cara menyampaikannya secara lisan di dalamnya terdapat 18 topik yang dikelompokkan dalam empat tema yang akan diuraikan di bawah ini.

#### Pendahuluan

Indonesian Peatland Network (IPN) adalah jejaring ilmiah yang dibentuk oleh Center for International Forestry Research (CIFOR) dan Indonesian Climate Change Center (ICCC) yang didukung oleh US Forest Service - International Program. Dalam rangka menjembatani interaksi antara komunitas peminat, praktisi dan ahli gambut Indonesia, IPN kemudian menyusun Toolbox IPN yang merupakan perangkat pelatihan berupa materi ceramah dalam bentuk powerpoint dan tersedia secara online yang ditujukan untuk memahami tantangan dan peluang lahan gambut di Indonesia dan kaitannya dengan mitigasi dan adaptasi perubahan iklim.

**PENULIS**

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**LIHAT SEMUA PRESENTASI**

CIFOR    USFS    CGIAR    FUND    ASSISTANCE PROGRAM ON FORESTS, TREES AND AGROFORESTRY

The landing page of IPN Toolbox website

### 4. Katingan peat forests research station

The Katingan Project is a single block of secondary forested peatlands covering an area of 108,000 hectares, located between Mentaya and Katingan rivers in Central Kalimantan Province. It is managed by a private company, PT Rimba Makmur Utama with the main goal to restore degraded peatlands and protect them from drainage and fires. A wide range of ecosystem services from non-timber forest products have been explored to provide livelihoods for the local communities along both rivers. These include aquaculture, rattan collection and handcraft home industries, and rubber tapping and processing.



IPN internship student measured heterotrophic respiration in forested peatlands by using portable gas analyzer (Photo by Kemen Austin/CIFOR)

The restoration project area has been made available to IPN for field research – a tremendous opportunity for the new program. The site where secondary forests sit on a peat dome is ecologically unique allowing the network to study various aspects of intact and disturbed tropical peatlands. Several students have been actively running a number of studies, including estimation of net primary production (NPP), GHG emissions, characterization of hydrology and peat water regime, estimation of peat depth and ecosystem carbon stock assessments.

If you are interested in learning more about IPN activities and/or discuss possible collaboration, please contact:

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More information about IPN can be found at [www.cifor.org/swamp](http://www.cifor.org/swamp) and about USFS International Programs at [www.fs.fed.us/global](http://www.fs.fed.us/global).



## Center for International Forestry Research (CIFOR)

CIFOR advances human well-being, environmental conservation and equity by conducting research to help shape policies and practices that affect forests in developing countries. CIFOR is a member of the CGIAR Consortium. Our headquarters are in Bogor, Indonesia, with offices in Asia, Africa and Latin America.

