

Meet the partners: Ongoing work at Can Tho University, Vietnam

Past events

Can Tho University (CTU) have organised a number of training courses for women on health care for women and children and transferring knowledge on environmental pollution from peat swamp forest fires related to climate change. The objectives of the training courses for local communities were to introduce cultivation techniques and upgrading knowledge for women to increase household income. Training was provided on fruit and vegetable cultivation in acid sulphate soils, animal husbandry and fish pond cultivation so that participants could diversify beyond rice cultivation.

After these training courses, we found that women living in the peatland buffer zone were more aware of their role in protecting the forest from fire during the dry season. In addition, their knowledge on many other subjects was improved. However, improving the household income is very important and it requires capital investment in order to change the cropping system in this area.

We ran a further training course on a Forest Fire Warning Method based on the results of a study in the Vo Doi National Park. It was recommended to use a model based on data such as air temperature and the moisture content of fuel to publicise the high level risk of fire in the peat swamp forest.

Future events

CTU are planning more training courses for women in other aspects to improve the role of women in their family such as equal rights, women's and children's health and education for women. Also further work is planned to broaden knowledge about preventing forest fires through local training to all households in the forest buffer zone.

A workshop on the topic of climate-human-carbon interactions and restoration of the peat swamp forest in the U Minh Ha region will be held. Participating in this workshop will be representatives of local government, technicians and the National Park manager in order to discuss the issues and make recommendations to policy makers.

Our interests

In the Mekong delta, besides the major produce of rice, there are large areas of fruit orchards and upland crops. Rice cultivation is known to emit methane (CH₄), whereas little is known about the gas emissions from upland crops. In a preliminary experiment we noted rather high nitrous oxide emissions and N₂O emissions may be much higher than expected from IPCC guidelines. For this reason, the field-study of gas emissions from upland crops related to climate change requires measurements over different crops and different soil types in the Mekong Delta. In addition, with climate change, soil degradation is more likely to occur and soil fertility will probably be affected by climate change. The habit of applying excess nitrogen for all the different crops in the Mekong Delta plays an important role in gas emissions.

Therefore we are interested in a new collaborative project to study the greenhouse gas (GHG) emissions from upland crops and fruit orchards and to find ways to reduce the emissions from agricultural production in the Mekong Delta.

Dr Vo Thi Guong, Can Tho University



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Carbon–Climate–Human Interactions in Tropical Peatlands: Vulnerabilities, Risks & Mitigation Measures

CARBOPEAT News

Issue 6 November 2008



A European Union (EU) funded project involving partners from both the EU and Southeast Asia. The aim is to promote better understanding and awareness of the issues surrounding carbon-climate-human interactions in tropical peatlands.

Welcome to the latest edition of CARBOPEAT News, this is the penultimate edition as the CARBOPEAT Project ends at the end of 2008. However, the outcomes of CARBOPEAT will be continued through the various Working Groups and networks established during the course of the project. In addition, materials and news will still be published through the project website.

If you have any news or events that you want publicising on the website and/or in the newsletter then please send them to me using the contact details on the left. The deadline for the last newsletter is Monday 8th December.

Dr Chris Banks, Leicester, November 2008

International Symposium & Workshop

Kuching, Sarawak, Malaysia, 19-22 August 2008

The latest, and unfortunately last, CARBOPEAT sponsored meeting was held in the city of Sarawak in August. The meeting was jointly organised and hosted by Universiti Malaysia Sarawak (UNIMAS) and the Malaysian Agricultural Research and Development Institute (MARDI). Over 150 delegates from at least 15 countries attended the meeting, which was opened by Y.B. Dato Sri Hj. Awang Tengah Ali Hasan (The Honourable Second Minister of Planning and Resource Management and Minister of Public Utilities, Sarawak).

Apart from a range of presentations and lively discussions, the meetings also resulted in the creation of temporary committees for a Malaysian Peat Society and the International Peat Society's Commission 9 (Tropical Peatlands).

Participants were also able to partake in an interesting technical tour (again with lively discussions of the issues raised). After viewing small scale oil palm and pineapple plantations, delegates had a brief tour of the UNIMAS campus.

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Delegates on the technical tour

Membership of pro tem committee of Malaysian Peat Society

Chair	YB Dato' Dr James Dawos Mamit
Vice-Chair	Prof Dr Murtedza Mohammed
Honorary Secretary	Prof Dr Wan Sulaiman Wan Harun
Committee Members	Mr Ismail Abu Bakar (MARDI) Dr Shamsuddin Ibrahim (Forest Research Institute of Malaysia - FRIM) Assoc. Prof Dr Mohd Tajuddin Abdullah (UNIMAS) Dr Lulie Melling (Dept. of Agriculture Sarawak) Dr Moh. Haniff Harun (Malaysian Palm Oil Board - MPOB) Mr Abd. Razak Ijang (Tradewinds Plantation)

As discussed on page 1 the *pro tem* committee for the Malaysian Peat Society agreed in Kuching in August is given above. Application for membership will be available once the Society is registered (an announcement will be made via the Carbopeat website).

Sabangau ecosystem restoration project

In issue 2 of the CARBOPEAT newsletter (November 2007), we featured CIMTROP and the Natural Laboratory for Peat Swamp Forest (NLPSF) in the Sabangau catchments. Below is the summary of a report on a collaborative project between CIMTROP and the US Fish and Wildlife Service. The project was set up to discourage activities likely to damage the unique characteristics of tropical peat swamp forest, resulting from poor environmental management. US F&W manages the Great Ape Conservation Fund that focuses on orang utan survival in the Sabangau catchment and provides funding support for the CIMTROP Protection Unit Team that patrols the peat swamp forest between the Sabangau and Katingan Rivers (PUTSK).



An example of dam construction

Background to NLPSF

The purpose of the NLPSF (in the centre of the Sabangau catchment) is to provide a core area for conservation planning on peat swamp forest in Central Kalimantan. The idea was developed by scientists through international collaboration between the University of Palangka Raya, local government in Central Kalimantan Province, BPPT Jakarta and Nottingham University, UK. Before the start of excessive logging, in the 1970s, the Sabangau peat swamp forest was popular for its jelutung latex and abundant fish. However, since the division of the area amongst many forest concession companies, sustainable activities have decreased owing to excessive forest cutting and poor water quality caused by the use of chemicals to preserve the cut timber.

The main purpose of current research activities is not only to maintain the NLPSF, but also to conserve the flora and fauna as a major global reservoir of biodiversity. Hopefully, the existence of the NLPSF in this region will help maintain the natural condition and function of peat including the capacity to hold a large amount of water. This latter function is key to mitigating flooding in surrounding and downstream areas, as it can store large amounts of water in the rainy season and release it slowly during the dry season. In addition, the problems of land subsidence and fire will also be reduced in the area.

Construction of canals has resulted in major ecosystem changes and is of concern because the area is home to probably the largest remaining population of orang utan in the world. Therefore, all canals in the NLPSF areas must be blocked at several points in order to stabilise the hydrological system, as this is essential for on-going successful management of the peatland ecosystem.

Project Aims

The report listed the overall project aims as:

1. to maintain the NLPSF as a carbon store and for protecting the rich biodiversity,
2. to reduce the damage to peat swamp forest through community awareness and empowerment programmes,
3. to carry out economic function recovery of the Sabangau catchment through jelutung and fish products.

The methodology incorporated blocking canals in the NLPSF. This has been carried out by CIMTROP for

12 years in partnership with PUTSK (Patrol Unit Team - Sabangau Katingan) and the people of Kereng Bangkirai village.

Dam Construction

Dams were established in the area consisting of two types:

- ♦ main dams that must be strong and be built in the mouth of canals,
- ♦ supporting dams, situated in the dome part of the peat swamp forest (number of supporting dams in each canal depends on the dimensions of the canal as well as the density of the surrounding trees).

Benefits and Outputs

The main output of the project is that the existing illegal activities and peatland damage is being reduced. In addition, there is a genuine agreement from the local community to maintain the peat swamp forest environment and work together with the PUTSK members for a long period to protect their environment for the benefit of local people. Other benefits from these activities are in terms of medium and long term environmental improvements: there is a big opportunity for the Sabangau catchment to recover as an important nursery area for freshwater fish and production of jelutung latex as in the past; sustainable biodiversity in Sabangau can still be achieved. In terms of social-economic benefit, the project has been providing a positive situation and the local community welfare will develop, as livelihoods are well preserved and protected. Hopefully, as a result of the teamwork activities in constructing dams, the owners of other canals will agree to block their canals.

The above information was provided by Dr. Suwido Limin, Director of CIMTROP, University of Palangka Raya (cimtrop_suwido@yahoo.com).

News Shorts

Films aired on Indonesian TV & available online

"Agar gambut tetap basah"/"Keep the peat wet" is one of four films by Adrian Seymour produced for the AirCO/CARBOPEAT/RESTORPEAT partnerships. The four films have been aired on MetroTV in Indonesia and clips of "Keep the peat wet" are available on YouTube. A low resolution version of "Keep the peat wet" is available for download from the CARBOPEAT website - www.geog.le.ac.uk/carbopeat/wetpeat.html.

ISBN available for Yogya Proceedings

The proceedings of the International Symposium and Workshop on Tropical Peatland held in Yogyakarta in August 2007 (available from the CARBOPEAT website) have now been published in full (ISBN: 978-1-870474-34-4). See www.geog.le.ac.uk/carbopeat/yogyaproc.html for further information.

New report available

A new report is available from a UK based think tank. The report finds that projects designed to halt deforestation and peatland destruction represent a far more cost effective means of cutting carbon emissions compared to biofuel subsidies. See http://www.nationalschool.gov.uk/policyhub/news_item/carbon_forests_peatland08.asp

Calendar

The 2nd International Symposium on Peatlands in the Global Carbon Cycle will be held 25-30 September 2009 in Prague, Czech Republic. See <http://www.peatnet.siu.edu/CC09MainPage.html> for further details. From 17-19 November 2008 an International Symposium on Policy and Practice in Peatland Management will be held at Palangka Raya University. See <http://ckpp.wetlands.org/NewsEvents/Calendar/tabid/889/language/en-US/Default.aspx> for further details.

Selected papers on tropical peatlands

Selected papers on tropical peatlands from the 13th international peat congress in Tullamore, Ireland, June 2008 will shortly be published and made available on the CARBOPEAT website. Currently, copies of many of the presentations made concerning tropical peatlands are available at www.geog.le.ac.uk/carbopeat/lzone/tullamore.html.



Repairing a dam