

The Best Idea for the Peatlands Challenge

Background

The global demand for sustainable agricultural practices is growing, and palm oil production is no exception. Indonesia, the world's largest producer of palm oil with an estimated production of 46.82 million metric tons in 2023, and the Netherlands, a key export destination within the EU, have a shared interest in ensuring that palm oil is produced sustainably.

Oil palm crop production faces many challenges, including the loss of biodiversity and greenhouse gas (GHG) emissions through drainage of peatlands for plantation development. **The Best Idea for the Peatlands Challenge** strives to engage students in contributing to the sustainability of peatland-based oil palm plantation landscapes and secure long-term social, financial and environmental services from these. Improving bio-diversity and maintaining or improving carbon stocks must be key objectives.

The Challenge invites students to collaborate interdisciplinarily and **develop a Sustainable Business Model Canvas** for income generating activities or sustainable crop cultivation (**other than oil palm**) for smallholder farming families or entrepreneurs in peat areas and surroundings in Indonesia. The Challenge allows students to contribute to real live projects.

Students in this challenge will get valuable hands-on experience and boost their intercultural and interdisciplinary working and communication skills whilst receiving support and guidance from their university and other project partners. This can help them to turn their ideas into a solid proposal that supports local livelihoods and rehabilitates peatland-based oil palm plantation areas.

This Challenge will directly support SustainPalm WP3's Objective 2: "Develop sustainable land-use systems and business models for peat areas." It focuses on fostering sustainable business opportunities on peatlands, empowering communities to manage their peat forests responsibly. The targeted peatlands include SustainPalm's working areas—South Kalimantan and Siak, Riau province—as well as the ComPeat project area in Ketapang, West Kalimantan. By connecting partners from both SustainPalm and ComPeat Living Labs, the Challenge seeks to go beyond the Living Labs framework, paving the way for dynamic Communities of Practice.

Format, Assignment & Objective

Format:

- Groups of students collaborate to develop a business model concept for peat areas, aimed at securing long-term social, financial and environmental services of the landscape and increased bio-diversity.
 1. Student groups may vary in size, according to student/team preference. We expect teams from 2-6 students; and aim at 4-5 groups per Living Lab.
 2. Student groups may be from one university, or from different universities. We welcome students from various disciplines.
 3. Student groups may be international, meaning that students at Indonesian and Dutch universities may collaborate.
 - The Challenge Organisers will facilitate a list in which students can indicate they want to work in an Indonesian-Dutch team. Indonesian and Dutch students can register for this online via Google Drive.
 4. Each student team is provided with an Indonesian and a Dutch coach, which are both knowledgeable about the relevant Living Lab. Both will assist the students with the project.
 5. The working language is English.
- Each student group develops a worked out **Sustainable Business Model Canvas** (SBMC), a list of commodities that is provided by the Challenge Organisers may serve as inspiration (see annex 1).
- Students may choose their Living Lab location: Siak, South Kalimantan or Ketapang.
- On the one day final event the SBMCs are pitched by the students in 2-4 minutes digitally/online to a jury.
- Project partners and coaches will share as much information as possible with student teams. Clearly, on some commodities more data is available than on other.
 1. There will be a Google Drive made available for each student team where information can be stored.
- The jury will have a week to determine the best ideas:
 1. Environmentally most promising idea (leading to the highest bio-diversity and carbon stock gains).
 2. Socially most promising idea (a worked out idea which seems very promising to the local communities).
 3. Most feasible SBMCs (an idea that is worked out well, and looks most feasible).
- The Challenge will involve a series of guest lectures (workshops) that are organized in the lead up to the final product. These activities are optional but aim to introduce the issues at stake in the relevant landscapes and provide students with hands-on skills relevant for their assignment.

- This Challenge is open for students from all knowledge institutions in the Netherlands and Indonesia. Hence, the Challenge and any additional workshops will be conducted online. Students are encouraged to meet with their coaches in person when possible and jointly develop proper SBMCs.

Assignment:

Develop a **Sustainable Business Model Canvas** for income-generating activities and sustainable crop cultivation—beyond just oil palm—for smallholder farming families and entrepreneurs operating in Indonesia's peatland areas. These should improve bio-diversity and maintain or increase carbon stocks.

Students can explore cases and products from the ComPeat and SustainPalm inventory of relevant peat-based products.

Examples include:

- Coffee Liberica
- Mushrooms and/or vegetables
- Rotan
- Sago
- Medicinal plants
- Other NTFPs or species that have proven to produce well on peat, do not require drainage and have a high economic potential as well ensure food security.

Examples of alternative income generating activities for smallholder farming families or entrepreneurs include:

- Fish production within peat areas
- Selling oil palm for carbon offset
- Tourism

A more extensive list of options can be found in Annex 1.

The business model should present a realistic, logical and substantiated pathway to an alternative land-use system in peat and surroundings that secures long-term social, financial and environmental services from the land. Some components which need to be developed are:

- Sustainable Business Model Canvas (see Annex 2)
- Indication/calculation of environmental benefits (carbon/bio-diversity)
- Indication/calculation of socio-economic benefits (including gender component)

Sources which explores key concepts that can serve as the framework for the Sustainable Business Model Canvas are:

- Osterwalder, A., Pigneur, Y., Papadakos, P., Bernarda, G., Papadakos, T., & Smith, A. (2014). *Value proposition design*. John Wiley & Sons. ← Available in English and Bahasa Indonesia
- Osterwalder, A. and Pigneur, Y. (2010) *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. Wiley, New Jersey. ← Available in English and Bahasa Indonesia

The Challenge consists of the following elements:

1. **Kick off meeting**
2. **Preparatory workshop(s)** which will be recorded. This allows students the opportunity to ask questions immediately when the session is being given.
 - **Workshop 1:** Background & Design thinking session, explanation of the three relevant Living Labs by project staff (VHL, IPB, ULM, UNTAN) + Design Thinking (by Erik Lalau, InHolland).
 - **Workshop 2:** Sustainable Business Model Canvas & Value Proposition development (by Leonoor Akkermans, Van Hall Larenstein).
 - **Workshop 3:** An inspiring case from the field (TBC; Arconesia explaining their SBMC).
 - **Workshop 4:** Trial run for presenting your Sustainable Business Model Canvas. External experts will directly provide feedback (different from jury, possibly other coaches).

Students can rewatch the session at a later moment as well. Obviously the opportunity to immediately ask clarification is than not possible.

- An additional Workshop by an Indonesian government official and possibly LNV attaché might be organized by IPB. This workshop will illustrate how peatland development is dealt with in a policy environment and provide students the opportunity to discuss with government officials. The focus is not directly on the SBMC.
3. **Time for teams to collaborate** (online/offline, at their own location).
 4. **Check ins with coaches** being present weekly on demand to assist groups.
 - a. Coaches participate in the relevant Living Labs.
 - b. Each team has an Indonesian and a Dutch coach to ask input and feedback from.
 - c. There will be students in the field in Ketapang from the 14th of April onward. These may function as a key source for groups, or become participants as well.
 - d. If relevant, students which have already participated in the Living Labs will be introduced as a reference.

5. **Pitching of SBMC:** via a digital/online presentation to the jury (2-4 minutes for pitch; 10 minutes for questions). In case there are more than 12 participating teams, there will be a preselection of 12 teams for the final event based on performance during Workshop 4. Prior to the pitching event (exact date TBD), students are requested to submit their business proposal in written format, so the jury can evaluate the proposals more extensively before deciding on the winning teams.
6. **Event in which the winners are announced** by the jury, including motivation why their SBMC won.

Teams will pitch their proposal to a diverse jury (three or four candidates). Suggested jury members are:

- PT Arconesia (entrepreneur)
- Tropenbos Indonesia (NGOs/project implementors)
- Chairperson of Indonesian Horticultural Professional Certification Body (TBC; private sector, with large professional network).

Prizes

- A cash prize for the winning teams (750 euro per prize per team):
 - A prize for the best Environmentally friendly SBMC.
 - A prize for the best Economic (beneficial for the community) SBMC.
 - A prize for the most feasible idea.
- Preparation for Internship or Thesis research and possibility to gain Personal Development credits (conditions are provided by the student's university).
- The winning SBMC will be presented during the SustainPalm closing event in the first week of September 2025, attended by a diverse international audience. Students will be introduced to relevant parties that may uptake their ideas. Most likely the presentation will be online.
- The winning SBMC will stand a chance to be implemented as a pilot project, supported with seed funding and in co-ordination with a local partner (e.g. Sanggar Bumi Lestari, Solidaridad, Tropenbos Indonesia), benefitting smallholder farmer families in Indonesia and the peatlands.
- Honourable mention on academic and SustainPalm social media.
- Networking opportunities and experience working in a real life international development setting.

Annex 1: List of potential crops

Annex 1 – Shortlist of potential products from the peatlands

Product	Type	Description
Fish	Harvested from wild population/ or from fishponds in canals.	Catch with traditional traps made from rotan. Traps are used and were observed in river in peat forest. Good market prices and existing market in Ketapan.
Honey / Madu Kelulut	Domesticated/ stingless bees	Bees don't specifically require intact peat swamps. There is already a market, high prices per volume.
Aloe vera	Agriculture	Grows on small dome. Water table was around 20-30 cm below soil level during visit. Still requires some drainage, drainage canal was said not to be connected to river. Not very common on peat soils. There is a market for Aloe vera.
Red ginger	Agriculture	See Aloe vera, except for market that is not present locally
Pineapple	Agriculture	One example was seen on the way to the intact peat forest.
Orchids	NTFP	Can be collected from intact forest. Not sure which species are valuable and how much they occur. Difficult market because price is uncertain.
Salak (Salacca zalacca), Asam Paya (Eleiodoxa)	NTFP	Occurs in natural peat swamp forest (but not exclusively). Used in dishes, for make juice en sweet soup. Replaces tamarind. Currently sold on local market, 4 fruits costs 1000 rupia. Fruits turn bad after a few days.
Dragon fruit	Agriculture	Is suited for dry conditions in dry season, which was said to be a positive characteristic of this crop as opposed to other crops.
Rotan	NTFP	Can be collected from the peat swamp forest (but does not exclusively grows there). Used for furniture.
Vegetables (e.g. tomato, chile, water melon, stinky beans, and others)	Agriculture	Various types observed in the field
Coffee Liberica	Agriculture	Grows in more wet conditions compared to other coffee plants (but requires a lowered watertable).
Medicinal plants	NTFP	There is information about medicinal plants.
Illipe nut	NTFP or Agriculture?	Also on peat soils?
Mushrooms	Agriculture	Has been a project by Tropenbos Indonesia already in Ketapang, interesting to explore further.
Purun	Mix with OP	Type of reed, experience from SustainPalm project site in South Kalimantan.
Kelakai	Mix with OP	Type of fern, experience from SustainPalm project site in South Kalimantan.
Galam	wood	Experience from SustainPalm project site in South Kalimantan. ← might not grow well on deep peat according to Sustain Palm expert, more knowledge required.
Sago	NTFP	Always appears promising, but never transitioning to a key commodity produced in the peatlands.
Jelutung	wood	Jelutung or other trees (see SustainPalm video)
Geronggang (or other wood species)	wood	A tree species growing well in the peatlands.
Carbon		What carbon market options are there? Might be additional or main 'commodity'.
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Additionally: A SBMC based on Tourism, or another innovative idea, is welcome as well.

Annex 2: The Sustainable Business Model Canvas

The Sustainable Business Model Canvas

Designed for:

Designed by:

On: Day Month Year

Version:



Based on: www.businessmodelgeneration.com

