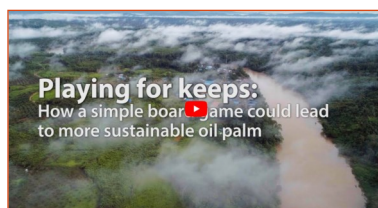


Blogs and video

OPAL attracting more and more attention

CIFOR published in February and March 2018 a series of four blogs about OPAL on its website CIFOR Forest News. In addition a video about the work in Indonesia has been released. Those blogs attracted a lot of attention and many people have been contacting us for further information, interviews and collaborations.

1. Video and article: **Playing for keeps—How a simple board game could lead to more sustainable oil palm**, watch and read [here](#).



2. **Indonesia's game of palms - Finding ways to conserve forests in the face of expanding plantations**, read [here](#).

3. **Playing the long game with palm oil - Using role-play to improve landscape management in Cameroon**, read [here](#).

4. **Sketching out sustainable futures - New methods for mapping and planning in Colombia**, read [here](#).

Current issues in oil palm

In Indonesia, the proposed EU ban on oil palm for biodiesel fuels is creating tensions across continents, and insecurity for producers. Switzerland is similarly debating tariffs on palm oil for biodiesel, which is likely as much due to protecting domestic vegetable oil producers as it is about sustainability concerns.

Also in Indonesia, discussions around the effectiveness of certification are continuing, and how best to implement certification standards across the range of palm oil producers, from large companies to the many smallholders. There is also an ongoing debate on whether oil palm plantations should be classified as forests or not.

In Cameroon, where the production of palm oil is still lower than domestic demand, the government is getting closer to adapting its National Sustainable Palm Oil Strategy. The idea is to boost the oil palm production in a sustainable way.

In Colombia, the export market is reflecting on the consequences of the proposed EU ban of biofuels. And discussions turn around land-use planning, water availability and the adoption of sustainable practices.

To learn more about how OPAL is addressing those issues, continue reading the newsletter.

Research highlights

Manoli, G., Meijide, A., Huth, N., Knohl, A., Kosugi, Y., Burlando, P., Ghazoul, J., and Fatichi, S. (2018) **Biophysical changes after tropical forest conversion to oil palm**. *Environmental Research Letters*, in press.

Playing for keeps—How a simple board game could lead to more sustainable oil palm, watch and read [here](#).

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Playing the “silent expansion” of oil palm

The game developed by PhD Student Bayu Eka Yulian (IPB, Bogor, Indonesia) focuses on the dynamics of land use change in rural areas caused by the expansion of oil palm plantations by smallholders, plasma developments, and large-scale plantations. In the game, players could expand legally (= with permits from the state) or illegally (without permits, behind the state regulations, also called “silent expansion”) and observe the consequences. The game looks at governance issues in plantation systems and was able to reveal problems with the land tenure system, the registration of permits, and the status of the area.



A government officer playing the role as smallholder. Happy and rich. « I'm a green player » he said, proving that developing oil palm plantations via legal expansion was beneficial for both the environment and the economy. (Photo Bayu Eka Yulian)

The game has been played with smallholders in February 2018 in four villages of Kutai Kartanegara District, East Kalimantan, Indonesia. Before and after the games, in-depth interviews were conducted to understand knowledge before and additional knowledge after playing. Bayu's team also played with district government officers of the Oil Palm Plantation Office.

Both smallholders and government officers welcomed the implementation of this activity. The Head of the Plantation Office of Kutai Kartanegara said *"this method can be used as training material to the villagers of oil palm plantations, so that they understand the process of legally establishing oil palm plantations. This game is able to represent the real situation of the dynamics of oil palm plantations in Kutai Kartanegara"*.

Similarly a smallholder, JHN (52 years old), said: *"The game is interesting. This is what's happening in our village. We became aware that the change in land cover in our village is due to excessive planting of oil palms. We lost fields, rice paddies and even forests. The game predicts that if our actions continue like this, then our village will experience problems. Because it only depends on one commodity : oil palm. I hope that all of our villagers can play this game, so that they become conscious and aware of this"*.

Why are RSPO and ISPO not working in Indonesia?

Rizka Amalia who is also doing her PhD with OPAL at the IPB, Bogor, Indonesia is continuing her field work. Her research on “Governance of Oil Palm Plantation, Land Cover Change, and Social Change In Kutai Kartanegara, East Kalimantan, Indonesia” wants to analyse:

- (1) the causes of why RSPO and ISPO (Indonesian Sustainable Palm Oil) implementation have not been effective in suppressing forest land cover due to oil palm plantation expansion,
- (2) the relation between the smallholders' household structure and the implementation of RSPO and ISPO, and
- (3) the impact of RSPO and ISPO implementation on social changes in smallholder households.

Two research sites were selected. One where the oil palm plantations companies have not been certified by RSPO and ISPO (Sabintulung Village, Muara Kaman District), and the other where some oil palm plantations companies have been certified by RSPO and ISPO (Gunung Sari Village, Tabang Subdistrict). On both research sites data collection was conducted using surveys, in-depth interviews, and ground checks of land cover.

While the data collected through surveys and ground checks is still being processed and analysed, Rizka got first results from the in-depth interviews. They seem to show that deforestation and other land cover changes that are happening even in the presence of RSPO and ISPO certification are the consequences of a connivance between smallholders, oil palm plantation companies and local governments, and the absence of forest boundaries.

OPAL in Colombia evolves to amplify its impact

The Colombian OPAL game has been restructured during the third week of January 2018 through a joint work between the Colombian team and Claude Garcia and John Garcia Ulloa from the ETH team. The main idea was to create a version that could be useful to feed different dialogues in the academy, decision makers and palm oil producers and growers.

During an entire week the team worked in the design of the game. The main achievement was the arrangement of several modules that can be adjusted according to the particular interest of the investigation team.

There is a basic module to play, which emphasizes the productive aspect. Players are oil palm producers and they can decide how to produce and sell to the market. There is also a module set for biodiversity, allowing players to make decisions in the land they own and then realize how those affect the animals present in the area. The landscape in which the game develops is the piedmont region of the Colombian Orinoquía. There are also modules designed for pest management, interactions with cattle and water availability, taking into account climate and hydrological dynamics.

As the game evolved, the team worked in the design of several investigation questions that will provide valuable data about how oil palm production in Colombia is developing. **Javeriana University**, **Nes Naturaleza** and **WWF Colombia** agreed to use the game in different contexts and with differentiated purposes, allowing the tool to be enriched by each particular experience. This will provide the Opal project several iterations to continue advancing in its goals.

WWF Colombia and Nes Naturaleza have since then been running different pilot game sessions.



Photos taken during the pilot sessions at WWF Colombia and Nes Naturaleza. (Photo Carolina Escallón Wey and Alejandra Rueda)

Sustainability dialogue with stakeholders of the oil palm territory

Nes Naturaleza has been testing the new structure of the Commo game and fine tuning it to build up a tool that could allow sustainability dialogues among the stakeholders of a the oil palm territory.

Three pilot games allowed Nes Naturaleza to create different scenarios within an overall of 10 sessions per game with close to 10 or 12 players who personified not only growers but also mills, environmental agency and NGOs. Players had different backgrounds such as agronomy, environmental and agroindustry engineering, ecology, political science, among others.

During the two first pilots, Nes Naturaleza was testing the metabolism of mills and farmers as well as the disease function. The game has also shown the reaction of growers to droughts and floods. Mills were also responding to changes in the market according to the supply and demand of CPO, during each period. Important to note that a farmer during the game, has also the chance to go for cattle ranching or other subsistence options different than oil palm.

The third game was played by guests who were also part of the previous ones and who were active during the debriefings. In fact, their suggestions were very important for enhancing the value of the game for shaping dialogues over a sustainable territory. As a result of the third pilot we got players more conscious of the environment and their land use decisions, mainly avoiding the spread of the disease. They were also self-regulating the game through their individual or group decisions, creating a better scenario for everybody.

As next steps, in May, Nes Naturaleza will bring the designed game into the field to play it with small growers from the Eastern region of Colombia.

OPAL in Cameroon

National Palm Oil Policy Dialogue (Yaoundé, Cameroon, 21-23 February 2018)

The OPAL team in Cameroon organized a National Palm Oil Policy Dialogue to leverage policy towards sustainable palm oil development in Cameroon. The three-day workshop was organized under the auspices of the Minister of Agriculture and Rural Development (MINADER) under the theme “Sustainable Palm Oil Development in Cameroon: Investing in a sustainable future for people and nature”. It brought together diverse stakeholders working in the sectors. Representatives came from the Government (MINADER, MINDCAF, MINEPAT, MINEPDED); programmes (PDPV and AVC-DP); the agro-industries (CDC, SOCAPALM, SGSOC, Mukete Estates and Green Valley); palm oil smallholder cooperatives (Bamusso, Eseka and Tiko); civil society (CED, RELUFA, APED, EGI), research and universities (IRAD, Universities of Yaoundé I, Buea and Douala) and international organizations (WWF, PROFOREST). The outcome of this was the adoption of principles (Focused on Economic viability, Environmental sustainability of the sector, enhancing good governance and improving social cohesion in the sector) to guide the sustainable development of palm oil in Cameroon. The full report of the workshop is available [here](#) (in French only).

This event was largely covered by the media:

- [Interview](#) of OPAL partner Durrel Halleson (policy coordinator, WWF Cameroon) on Equinox News
- [Interview](#) of WWF International palm oil lead, Elizabeth Clarke and Durrel Halleson on Canal English
- Equinox tv [report](#) on Oil palm development in Cameroon
- [Article](#) published in Cameroun Info Net
- Other [articles](#) in the local press.

Field report from the soil team

By Thomas Guillaume, Postdoc, EPFL Lausanne, Switzerland

Cameroon is the next frontier for oil palm plantations and offers unique opportunities for interdisciplinary and field-based research. With its cultivation practices of relatively low intensity in terms of land-clearing, use of fertilizers and herbicides, crops association or landscape mosaics, as compared to Southeast Asia, the country provides a multitude of alternatives to the intensive cultivation practices commonly in place. In this living laboratory, the central research concept is “tradeoffs”: what is the balance between economic benefits and ecosystems functioning in those alternative practices; is there an exemplary alternative? on which side of the balance should we add more weight to make oil palm cultivation more sustainable?

These are the questions the EPFL and Cameroonian teams had in mind when they initiated a field campaign in Cameroon in January 2018. After multiple skype meetings with Patrice Levang (ex-CIFOR Cameroon), Emmanuel Ngom (MINADER), Prof. Mesmin Tchindjang and the team WWF Cameroon, we chose to investigate the socio-economic and environmental tradeoffs of the system consisting in intercropping oil palms with food crops. Thus, the focus should be the impacts of this practice on incomes, oil palms productivity and soil fertility.

After a week spent in Yaoundé meeting colleagues, we went for field visits during a week to get a sense of the various cultivation practices. It became rapidly clear that we would not achieve our planed research within two months. Therefore, we decided to focus the work during our stay in Cameroon on an interesting chronosequence of plantations found during the visit and leave the research on intercropping for the second phase of OPAL.

The chronosequence encompassed plantation blocks 4 to 39 years old with secondary forests in the vicinity as reference sites. The plantation was a semi-industrial plantation using fertilizers and intercropping oil palm with banana plantains during the immature phase of the plantation. The goal was to investigate the impact of this management model on soil fertility. The sampling campaign was pretty fast and samples are now being analysed in Cameroon and Switzerland. At the same time, the research plan for the second phase is being established and we seek to integrate ideas of OPAL research groups. Don't hesitate to contact us!



Intercropping in a plantation of Cameroon: immature oil palms surrounded by maize and plantain. (Photo A. Buttler)

Expert talk on market access for Indonesian palm oil (Bern, Switzerland, 18 January 2018)

Jaboury Ghazoul (OPAL project leader, ETH Zurich) was invited to participate in an expert discussion workshop titled “Market access for Indonesian palm oil: terms and requirements”. Guests at the meeting were Anton Widjaya and Yuyun Harmono from WALHI (Friends of the Earth, Indonesia). The meeting was organised by Thomas Braunschweig, from Public Eye.

The meeting was organized in the context of the negotiations on a free trade agreement (FTA) between Switzerland and Indonesia, where the market access for palm oil is a key issue. The Indonesian side is calling for a tariff waiver for palm oil, while civil society organizations in both countries criticize alleged human rights violations and environmental degradation in production, and require Switzerland not to give preferential treatment to such a product. An important aspect of Swiss decision making is also the lobby from the Swiss farming community that is concerned about the competitiveness of their production systems.

The issues discussed included requirements for sustainable palm oil, the conditionality for tariff concessions or the situation in the EU (ban on palm oil for biofuel). While some people had quite strong and one-sided opinions toward the environment, Jaboury Ghazoul and others agreed that the situation was more complex. Jaboury mentioned that a ban was possibly counter-productive and likely not a constructive approach; a ban on palm oil for biodiesel reduces Europe’s leverage in terms of the negotiation of improved standards with Indonesia. Overall an interesting discussion and useful in terms of networking.

On the European ban, also read: [Banning palm oil blocks good practices](#), by Alejandra Rueda and Jaboury Ghazoul (ETH Zukunftsblog, October 2017)

Students bridging Switzerland and Indonesian (ETH Zurich, 17 March 2018)

Nur Hasanah (doctoral student, ETH Zurich) presented her PhD work at a gathering of the Swiss Indonesia Student Association (PPI). In addition to a talk, she facilitated a session of the game that she developed. The event was organized by Indonesian students with the support from the Embassy of Indonesia in Bern, Switzerland. Indonesian students, staff from the Embassy and from UNEP in Geneva attended the gathering.

As a follow-up of the event, Nur Hasanah and three other students met the Indonesian Ambassador and his staff on 4 May 2018 in Bern. The newly arrived Ambassador, Prof. Muliaman Hadad, concerned about several issues in Europe, including oil palm, expressed his willingness to collaborate with the OPAL team and PPI to organize and fund an event in Switzerland related to the oil palm issues.

On another topic, Nur Hasanah has also been interviewed for an article, titled [Gaming the Palm Oil Industry](#) (The Scribe, Indonesia, March 2018).



Students of the Swiss Indonesia Student Association after playing the game.
(Photos Nur Hasanah)

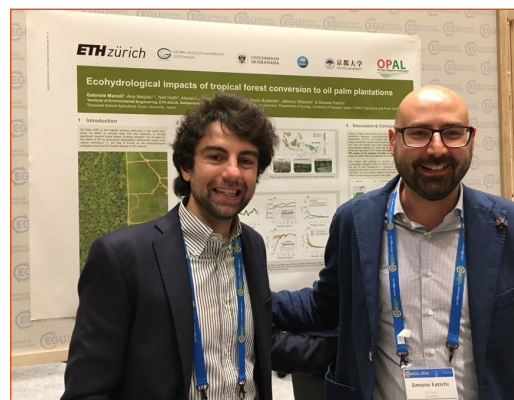
OPAL research presented at international conferences

John Garcia-Ulloa (Postdoc, ETH Zurich) presented in February 2018 the OPAL project at the ISCC conference in Brussels, Belgium (International Sustainability and Carbon Certification). His presentation **“Playing Games with the Palm Oil Supply Chain”** is available [here](#) on the ISCC website. Presentations by all other speakers are also available on [this other link](#).

Natalia Ocampo-Peñuela (Postdoc, ETH Zurich) attended in March 2018 the European Conference of Tropical Ecology in Paris. She presented a study co-lead by John Garcia-Ulloa on the impacts of deforestation (including land use changes caused by oil palm) on habitat availability for frugivorous species in Borneo. Congratulations to her for winning the second prize on best presentation!

The EPFL team attended in April 2018 the EGU General Assembly in Vienna (European Geosciences Union) with a poster titled **“Management impacts on soil organic C decomposition and stabilization rates in oil palm plantations”** by Thomas Guillaume, Juan Carlos Quezada, and Alexandre Buttler, and a presentation titled **“Long-term impacts of oil palm cultivation on soil carbon dynamics and biogeochemical soil properties following pasture conversion in Colombia”**, by J.C. Quezada Rivera, Th. Guillaume, and A. Buttler.

Gabriele Manoli and Simone Fatichi from the Hydrology group of ETH attended the same conference, where they presented a poster titled **“Ecohydrological impacts of tropical forest conversion to oil palm plantations”**.



Gabriele Manoli and Simone Fatichi at the EGU in Vienna. (Photo G. Manoli)

Previously at the AGU (American Geophysical Union, December 2017) in New Orleans, USA, Gabriele Manoli gave a talk entitled **“Mature oil palm plantations are thirstier than tropical forests”**.

Finally John Garcia-Ulloa will be attending the next meeting of IUCN Task Force in London on the third week of June at the Zoological Society of London. This meeting will determine future objectives and activities of the Task Force within the broader discussion on oil palm sustainability. This meeting will follow up with the official launch of the IUCN Situation Analysis on Palm Oil and Biodiversity at the RSPO's annual European Roundtable to be held in Paris this year.

Recently published

- [Impacts of oil palm intercropping on soil fertility, income and productivity](#), by Eric Voundi, Rose Ngo Makak and Damien Marie Essonso under the supervision of Mesmin Tchindjang (February 2018). Also available in French: [Impacts de la culture intercalaire dans les plantations de palmier à huile sur la fertilité des sols, la productivité de la plantation et les revenus](#).
- [Environmental impacts of smallholders and elites oil palm plantations on deforestation in the Sanaga Maritime and Ndian basin landscapes: case studies of Ngwéi and Ekondo Titi Subdivisions](#), by Mesmin Tchindjang (June 2017). Also available [in French](#).
- [Banning palm oil blocks good practices](#), by Alejandra Rueda and Jaboury Ghazoul (ETH Zukunftsblog, October 2017)
- [Learning to tackle wicked problems through games](#), by Claude Garcia, Anne Dray and Patrick Waeber, ETH Zurich (Integration and Implementation Insights, April 2017)