
CoPalCam: Exploring the complexities of the Palm Oil Supply Chain in Cameroon. Participatory modelling, stakeholder engagement and capacity building through role playing games.

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Abstract

Experts tend to have a deep but narrow understanding of their field, and this expertise is known to increase their cognitive bias. The case is of the palm oil supply chain in Cameroon is no different. Decisions are taken at all levels of the supply chain, with far fetching, often unforeseen, sometimes unwanted consequences in terms of sustainability, efficiency and environmental impact. To overcome this challenge, we developed, as part of the OPAL (Oil Palm Adaptive Landscape) project, a role playing game, CoPalCam, with stakeholders from the oil palm belt of Cameroon. CoPalCam can be used by small growers, cooperatives, plantation companies, downstream industries, and policy makers to explore the resilience of the supply chain and the complex and non-linear ways in which their decisions interact.

In a first step, the model was calibrated and validated during playing sessions with 28 oil palm smallholders, 3 extension officers and 5 representatives of two of the five companies processing fresh fruit bunches (FFB) into crude palm oil (CPO) in 3 regions of Cameroon. These game sessions refined our collective understanding of the supply chain. The discussions generated feedback that could be integrated in the model, or act as "take-home" messages for the participants, be they academics or stakeholders.

The second step was to use this game to organise a discussion with 8 members of the Cameroonian Palm Oil Supply Chain Regulation Committee. This institution involves representatives of the ministries of Finance, Trade and Agriculture, refiners and soap-industries, agro-industries and the main smallholders' association (UNEXPALM) and is an ideal platform to explore alternative solutions to the issues faced by the supply chain.

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The outcome of this last session was (i) a better understanding by the Committee members of the individual strategies of producers and transformers and their impacts, (ii) a request to repeat the exercise to explore potential solutions to the problem of insufficient production in Cameroon, and (iii) the opportunity to use the game as part of the awareness creation program the Government is running in order to foster the creation of cooperatives.

It's not often that policy makers at the highest level are able to experience first hand the complexity of the systems they manage. Our model, our game, and the scenarios that we can explore with it gave them this opportunity, in a non-threatening, low stakes environment. It could shatter their "illusion of understanding" and by creating alternative forms of interaction, enabled them to discuss openly sensitive topics. It also gave them the opportunity to reflect on their own role and capacity of action: where is the real power driving change in the supply chain? Our method and the boundary objects it creates are an efficient way to build the capacity of the managers and policy makers in dealing with complexity and let them explore alternative scenarios balancing development and conservation imperatives. Their uptake by the Government is a proof of that.

Keywords: Participatory Modelling, Role Playing Game, Transdisciplinarity, OPAL, ComMod