

Call for papers for a Thematic Issue of Cahiers Agricultures

"Which innovations for resilient cocoa farms".

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By 2020, according to the World Cocoa Foundation, two-thirds of cocoa farmers in Africa continue to live below the extreme poverty line, officially defined as a net income per person per day of less than US\$1.9 (Scobey, 2020). The claims to sustainable certification programmes and the millions of dollars invested by international cocoa and chocolate companies did little to lift them out of poverty. Fairtrade, one of the leading certification agencies, recognises this as well. Even with a drastic adjustment of the poverty line to US\$ 0.78, to account for the lower cost of living in Côte d'Ivoire the percentage of farmers below the extreme poverty line is still estimated at 54% (Rusman et al., 2018). Even if additional income from diversification (Bymolt *et al.*, 2020) or the recent decreases in the prices of inputs and capital goods (Ruf et al., 2020) mitigate the phenomenon, the picture remains the same. Moreover, it is perfectly consistent with the fall in world cocoa prices. Since the peaks achieved in 1977/78, the world price has dropped six- or sevenfold (ICCO, 2020). Also in perfect coherence, sector studies show a sharing of value that is unfavourable to smallholder producers. Taken as a percentage of the price of a bar of dark chocolate in France, the grower received around 7% in 2000 and 6% in 2020 (Dorin, 2000; Basic, 2016; 2020). As a partial consequence, the presence of children in plantations in West Africa seems to be increasing in absolute numbers, even if we remain cautious about interpretations (Tulane University, 2015; NORC, 2020). When it comes to the environment, researchers' and forest protection organisations' maps leave no doubt about cocoa-driven deforestation at the cocoa frontiers (Varlet and Kouamé, 2013; Barima et al., 2016; Higonnet et al., 2017). Cocoa cultivation has always followed a pattern of shifting cultivation, combined with high migration (Hill, 1961). Continuously settling in new areas of virgin forest, cocoa has exploited forest resources and moved on when yields declined, consuming the Upper Guinean Rainforest, of which today less than 15% remains (Hill, 1961 ; Ruf et al, 1995; Léonard and Vimard, 2005; Darwall et al, 2015).

Faced with such dynamics, linear conceptions of innovation based on the simple dissemination of technical innovations developed in research laboratories, whether public or private, are outdated (Mathé et al, 2020; Temple and Casadella 2021). In terms of innovations and social organisations, the notion of cooperatives has a long history in South American cocoa production. In West Africa it is

emerging and in Southeast Asia almost non-existent. Does it continue to be necessary to ensure the role of the cooperative in the governance of the sector? In many countries, cooperatives do not defend the producers very much - if at all.

Land tenure disputes increase with the scarcity of land and forest resources, sometimes contributing to wider forms of conflict (Chauveau et al., 2020). Ideally, securing land rights, as well as land use rights or tree ownership rights, can be an important lever for producer investment, but the risks of exclusion from family farming are not negligible (Lavigne-Delville et al., 2002). Despite taxation in the value chain, cocoa farmers rarely have health insurance or a minimum pension.

Yet, in this fragile context, global production remains on the rise, fuelled both by cocoa expansion increasingly at the expense of so-called classified or protected forests – as well as by farmers' innovation strategies and intensification through inputs, including fertilisers. These processes of innovation and intensification can increase incomes. However, when combined with expansion and increasing supply, this is not without perverse effects on the world price of cocoa and thus on family incomes and living conditions (Ruf, 1998, 2021; Odijie, 2018). In addition, climate change threatens cocoa production and income because of the need to adapt production practices according to climatic impact zones (Bunn et al., 2019; CCAFS, 2018).

Where are the initiatives to overcome this **'cocoa producers' curse'**? What global value chain governance would be able to shift the division of value that is so unfavourable to growers? What new forms of organisation and institutions can serve producers? Which technical and social innovations will allow for a transformation of cocoa systems? What form do they take? By whom are they being implemented? What new mechanisms for collaboration are emerging?

Over the past 20 years, in a general context of state withdrawal from the function of advising and supporting farmers, and more specifically in the West African context of the liberalisation of the cocoa sector, international firms have taken an interest in the smallholder cocoa producer. Under pressure from shareholders, public opinion and various interest groups, agro-industrial companies are investing in support for producers, in the name of their corporate social and environmental responsibility. 'Sustainable cocoa' standards and certification by third parties, usually international NGOs, have gradually become the main vehicles for this course of action by private companies. Several have committed to their own so-called sustainable cocoa production programmes, on which they spend millions of dollars.

'Sustainable cocoa', 'zero-deforestation cocoa', 'cacao vie', 'classified agroforest', 'climate-smart cocoa', 'forest-friendly cocoa', 'transparency', 'farmer relay', 'child-free cocoa'... the world of cocoa has a remarkable collection of expressions that are representative of the efforts of international companies and public policies to support smallholder cocoa farmers (95% of the world's cocoa production comes from family farms of less than 10 ha). Do these family farms benefit from the proposed measures announced under these labels?

Several studies conclude rather positively on the efforts made through the certification standards (Basso et al., 2012; Ingram, 2014; Waarts et al., 2015; Fenger et al., 2017). Other studies are more critical (Ruf et al., 2012; 2019; Harley, 2016; Odidjie, 2018; Ingram et al., 2018; Gboko et al., 2020). Even if some techniques are adopted via these standards, there is no guarantee that living conditions will improve and that cocoa will be 'sustainable'; on the contrary, everything points to an increasing dependence on the control of international firms (Ollendorf 2017; 2021).

It should not be overlooked that some of the criteria or guidelines conveyed by so-called sustainable or equitable certifications and presented as innovations to farmers are often not innovative at all, but

rather, a repetition of messages and techniques that have survived through the decades. Most growers have been familiar with them for a very long time. If they do not adopt them, this is often out of rationality. Cocoa farmers are most capable of assessing the negative impact of many of these guidelines on labour productivity and risk levels (Uribe-Leitz and Ruf, 2019; 2020). Can local or territorial labels bring more profit to the farmers? In any case, the question of cocoa bean traceability from the plantation to the port is far from resolved.

Beyond these observations, what are the concrete initiatives and actions that have demonstrated a capacity to curb this 'cocoa curse'? Without forgetting legitimate corporate interests, such as ensuring a stable supply of cocoa beans, international companies are learning from their failures and can evolve towards measures that are more useful to farmers. Nevertheless, 'cocoa innovation' and 'cocoa resilience', and evidently value chain governance, are to be sought far beyond the actions of international companies, as well as all public and private structures with a mandate to support family farming. The 'innovation system' (Spielman et al., 2009) is often complex, requiring many actors. But are not the first innovators, the most important value chain actors, the producers themselves, often forgotten?

The replanting and rehabilitation of cocoa farms remains a complex historical, technical, economic and social endeavour (Sommariba et al, 2021). A priori, diversification is a resilience measure and a pathway to escape from cocoa sector governance. This is not always acceptable to international firms in the cocoa and chocolate sectors, who for instance regard rubber as their enemy and competitor (Ruf, 2016; Odijie, 2018). However, rubber revenues can help some farmers to reinvest in cocoa or even to replant under rubber trees. Another fundamental area for cocoa diversification is that of the forest and the timber industry from which West African farmers have historically been excluded, even though this exclusion has been decisive in the process of deforestation and the disappearance of the commons (Amanor, 2005; Boni, 2005; Ruf, 2011; Sanial, 2018). Agroforestry diversification is certainly a way forward, already widely charted by the farmers themselves (Jagoret *et al*, 2012; Sanial 2015, 2018, Cerda *et al* 2014), but it cannot compensate for the loss of tropical forests. To pretend to do so would be to use agroforestry as a 'greenwashing' process.

Will the carbon market eventually bring something to cocoa producers? (Sommariba *et al* 2013) Isn't this market very close to the interests of the promoters of a certain type of agroforestry?

Despite, or because of its environmental impact, revenues coming from artisanal gold mining, partly beyond the control of states, can no longer be ignored (Kouadio et al., 2018). Working to improve the living conditions of the families of cocoa producers therefore also brings us back to the question of control and the sharing of resources in the territory as well as within the value chains.

As the world passes the 2-year mark of Covid19, the pandemic has not helped the cocoa producers. The industry is alleging a reduction of the consumption, to justify lower prices and their reluctance to apply the "LID", Living Income Differential, hardly imposed by the governments of Côte d'Ivoire and Ghana. The fields of research remain largely open, on the interactions between Covid and LID.

More generally, J.P. Olivier de Sardan (2021) reminds us of the importance of contexts. A successful development action in a given country and situation is not easily transferred. An example in cocoa could be the attempt by one of the chocolate industry's leading companies to transfer containers of inputs from Indonesia to Côte d'Ivoire, making them available to young people who were supposed to sell the inputs while providing technical advice. The initial success in Indonesia was followed by failure in Côte d'Ivoire.

This call for papers invites the submission of empirical analyses and case studies on the issues described above, particularly in the field of social and technical 'cocoa innovations', that can strengthen resilience and the role of producers in the governance of the sector. This objective naturally involves parallel innovations, alongside cocoa, of all origins, and all innovation systems likely to generate alternatives and make relations less asymmetrical between farmers and other actors in the sector.

In a way, we summarise this call for papers by adapting Professor Malassis' adage from the 1970s: 'There is no agricultural solution to agricultural problems' – This call for paper is about understanding technical and social change; as such, 'There is no (mere) cocoa solution to the problems of cocoa farming and cocoa farmers.'. What concrete and innovative solutions have been tested so far to make their farms truly more resilient and less vulnerable vis-à-vis other value chain actors? This is what we would like to explore.

Practical guidelines

We wish to favour an interdisciplinary approach from various angles. Authors from all the social sciences are called upon to participate: sociology, demography, history, geography, political science, economics, anthropology, etc.

Articles must be sent to all three coordinators and to the site <https://www.cahiersagricultures.fr> with reference to the thematic issue "*Innovations cacacoyères*":

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Deadline: 15 March 2022

Articles must adhere to the authors' instructions of *Cahiers Agricultures*:

<https://www.cahiersagricultures.fr/author-information/instructions-for-authors>

Articles can be in French or English and cannot exceed 5,000 words (excluding the abstract and bibliography). In line with the options offered by this journal, opinion pieces of up to 1,500 words can also be considered.

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