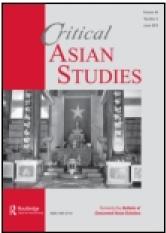
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Publication details, including instructions for authors and subscription information:

http://www.tandfonline.com/loi/rcra20

## Land Acquisition, Investment, and Development in the Lao Coffee Sector: Successes and Failures

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Published online: 03 Mar 2015.

To cite this article: Oliver Schönweger & Peter Messerli (2015) Land Acquisition, Investment, and Development in the Lao Coffee Sector: Successes and Failures, Critical Asian Studies, 47:1, 94-122,

DOI: 10.1080/14672715.2015.997095

To link to this article: <a href="http://dx.doi.org/10.1080/14672715.2015.997095">http://dx.doi.org/10.1080/14672715.2015.997095</a>

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# Land Acquisition, Investment, and Development in the Lao Coffee Sector: Successes and Failures

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ABSTRACT: Despite the increasing acknowledgment of scholars and practitioners that many large-scale agricultural land acquisitions in developing countries fail or never materialize, empirical evidence about how and why they fail to date is still scarce. Too often, land deals are portrayed as straightforward investments and their success is taken for granted. Looking at the coffee sector in Laos, the authors of this article explore dimensions of the land grab debate that have not yet been sufficiently examined. Coffee concessionaires in southern Laos often fail to use all of the land granted them and fail to produce high yields on the land they do use. Thus, the authors challenge the often-assumed superiority and effectiveness of large-scale versus small-scale production, specifically the argument that they modernize agricultural production and optimize land use. They argue that examining failed investments is as important as studying successful ones for understanding the implications of the land grabbing phenomenon for social, economic, and environmental outcomes. Knowledge about the scale of "failed land deals" provides important motivation for national governments to close the gap between intentions and actual outcomes. This article engages with the current debate on quality of investment and challenges the approach of employing land concessions as a vehicle for economic development in the Lao coffee sector and in other sectors and countries.

Keywords: Laos; land grabbing; large-scale land acquisition; coffee; failed agricultural investment

Recent years have witnessed the emergence of significant debate concerning large-scale agricultural land acquisitions (LSLA) via long-term land leases and purchases. LSLAs are often labeled as "land grabs," which, since the Tirana Declaration in May 2011, are defined among others as concessions or acquisitions of land that violate human rights and that are not based on transparent contracts or thorough assessments of social, economic, and environmental impacts. Reports on land grabbing from the media, nongovernmental organizations (NGOs), and international organizations have been produced in rapid succession, especially since the NGO GRAIN launched its report "Seized! The 2008 land grab for food and financial security," one of the first to tackle the issue and receive significant media attention. Marc Edelman and his coauthors refer to the years 2007 to 2012 as the "making sense period" during which land grabbing reports focused largely on

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<sup>&</sup>lt;sup>1</sup>ILC 2011.

<sup>&</sup>lt;sup>2</sup>GRAIN 2008.

<sup>&</sup>lt;sup>3</sup>Baird 2014, 431–453.

defining the phenomenon and on basic questions such as who is doing what and where.<sup>4</sup> Ian Scoones and his coauthors propose that a new phase of land grab research is needed, one that "refines methods, concepts and criteria, and establishes new norms and systems for sampling, recording and updating information."<sup>5</sup>

As a number of scholars have argued,<sup>6</sup> a significant weakness in much of the LSLA literature is that LSLAs are portrayed as straightforward investments and their success taken for granted based on assumptions about their competitive economies of scale in production expertise, capital, and technology. Yet, high numbers of reported deals have not been implemented or have stalled after implementation, a fact that the research community has been slow to acknowledge.<sup>7</sup> Apart from the desire of some authors to grab headlines,<sup>8</sup> the amount of land acquired has also been overestimated due to the use of defective data and the recycling of inaccurate numbers through subsequent publications without a questioning or inspection of the data.<sup>9</sup> More recently it has been noted that initial intentions and land deal announcements in the media often exceed the final and actual size agreed in contracts and that a significant number of deals already fail at the negotiation stage.<sup>10</sup>

While the literature has increasingly recognized the discrepancy between the reporting on versus implementation of land deal projects, analysis of the scale and reasons for land deal failure has been limited. One of the few studies that has looked at the varied potential for land investments to both succeed and fail concluded that even among projects that obtained formal land rights and began project establishment, there was a high level of failure with many failing prior to production.<sup>11</sup>

Another weakness in the LSLA literature, until recently, is that data has been derived mainly from narrow, micro-level case studies, on the one hand, or abstract, macro-level synthesis papers, and macro-level observations, on the other. Case studies with a small sample size can generate in-depth descriptive and analytical insight into the causal complexities of social phenomena and provide rich ground for theorization, but they cannot measure the degree to which such insights can be generalized across a large sample of cases in order to capture broader patterns of LSLAs, such as throughout a whole sector or geographic region. Synthesis papers, both theoretical pieces based on secondary literature and analyses of aggregated land investment databases, are effective at overviewing the scale of LSLAs and discerning broader patterns, but they are limited in their ability to analyze how such investments are occurring. This is due in part to issues having to do with data inaccuracy concerning even basic dimensions of investment processes, such as the degree to which projects have actually been implemented on the ground. Both macro-level synthesis work and small-sample-sized micro-level case studies have paid little attention to deals that have not materialized or that have failed. Only a few scholars working on LSLAs have addressed this issue or attempted to go beyond that dilemma.

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<sup>4</sup>Edelman, Oya, and Borras 2013.
<sup>5</sup>Scoones et al. 2013, 480.
<sup>6</sup>Edelman 2013; Borras and Franco 2013; Baglioni and Gibbon 2013.
<sup>7</sup>Anseeuw et al. 2012; Land Matrix 2014.
<sup>8</sup>Holt-Giménez 2012.
<sup>9</sup>Edelman 2013; Bräutigam and Zhang 2013.
<sup>10</sup>Land Matrix 2013; Borras and Franco 2013.
<sup>11</sup>Boche and Anseeuw 2013.
<sup>12</sup>Messerli et al. 2013.
<sup>13</sup>George and Bennett 2005.
<sup>14</sup>Cotula 2012; Borras and Franco 2012; Borras et al. 2013.
<sup>15</sup>Anseeuw et al. 2012; Oxfam 2012; Arezki et al. 2011.
<sup>16</sup>Oya 2013; Scoones et al. 2013.
<sup>17</sup>Barney 2012a; Oya 2013; Messerli et al. 2014.
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Laos has become a LSLA hotspot in Southeast Asia, at least in terms of investor interest and hectares granted, if not in area implemented. For a small country such as Laos, an impressive amount of literature exists on the topic, but much of it is both general and descriptive at the national level<sup>18</sup> or based on village-level critical case studies of LSLA livelihood impacts. Some of the thematic foci predominant in the Lao land grab literature include accumulation by dispossession and exclusion,<sup>19</sup> micro-geopolitics, political memories and production of land sovereignty,<sup>20</sup> proletarianization,<sup>21</sup> resistance,<sup>22</sup> and food security.<sup>23</sup> Most studies have focused on rubber or pulp tree plantations owned by Chinese and Vietnamese investors.

This study focuses on LSLAs in the Lao coffee sector, an issue that has so far been given little attention in the Lao land grab debate. We contrast the main objectives of the Government of the Lao PDR (GoL) for granting coffee concessions with the actual outcomes of implementation and production. We provide evidence that many concessions in the heart of the Bolaven plateau, in Paksong districts – where most of the Lao coffee is produced – have failed and that area granted to a multitude of investors does not correlate with productive land utilization. By showing the weaknesses and limitations of Bolaven coffee concessions, we challenge the often pre-assumed "superiority" and effectiveness of LSLA over small-scale production. Small-scale farming in Laos is not without its problems, 24 however, and the superiority of one system over another should not be assumed without substantiation. In the case of Lao coffee, we contribute to arguments in favor of smallholders as opposed to LSLAs for agricultural production, using evidence different from the usual arguments against large-scale land investments, such as violations against human rights, the right to food, or the negative social and economic consequences of LSLAs for the local population.

The failure of LSLA investments is commonplace and deserving of its own investigation into how and why failure occurs. We argue that examining failed investments is as important as studying successful ones for understanding the implications of the LSLA phenomenon for social, economic, and environmental outcomes. Failed LSLAs can do as much harm by dispossessing farmers from land that ultimately goes unused, creating unpredictable land use and tenure scenarios that prevent effective development planning. Failed LSLAs illustrate the many weaknesses of large-scale estate production as an agricultural development model. We call for a methodological reflection on how to conduct research on LSLAs. By not portraying LSLAs as fait accompli, we endeavor to analyze the different degrees of implementation that occur, while we acknowledge that land deals can play out very differently within one single country and one sector. In so doing and by focusing on the failure of LSLAs we intend to understand outcomes of LSLAs in a differentiated manner. For this we adjust the analytical lens of research on LSLAs to a single specific crop (coffee in this case), but including a larger sample of deals, and use evidence of failed concessions to argue against the development approach of large-scale land concessions in the Lao coffee sector. We conclude that land concessions are not the way forward to boost coffee production in Laos, to modernize agricultural system, or to optimize land use efficiency.

The remainder of this article is organized as follows. In Section 2, we provide a brief background on the concession situation in Laos and the GoL's main rationale for using LSLAs as an approach to development. We also introduce the current LSLA dynamics in Paksong, focusing

<sup>&</sup>lt;sup>18</sup>Schönweger et al. 2012; Schönweger and Uellenberg 2009.

<sup>&</sup>lt;sup>19</sup>Lund 2011; Baird 2011; Kenney-Lazar 2012, 2010.

<sup>&</sup>lt;sup>20</sup>Dwyer 2013a; Baird and Le Billon 2012; Lund 2011.

<sup>&</sup>lt;sup>21</sup>Baird 2011.

<sup>&</sup>lt;sup>22</sup>McAllister 2012.

<sup>&</sup>lt;sup>23</sup>Fullbrook 2010a.

<sup>&</sup>lt;sup>24</sup>Barney 2008.

on the coffee situation. In Section 3 we explain the methodologies applied in this research and then present the results of our study in Section 4. In Section 5 we discuss our findings and offer some conceptual insights that our study contributes to the scholarly literature on LSLAs. Finally, the Conclusion provides lessons for future research on the global land grab phenomenon.

#### **Concessions in Laos**

The GoL has championed foreign direct investment (FDI) in land as an effective development tool. Due to a limited number of other opportunities, the granting of land concessions to both foreign and domestic investors is supposed to transform untapped natural resources and unused land into productive assets. At the same time, concessions are thought to be a tool for eliminating unwanted land use systems such as opium production and shifting cultivation, an agricultural practice the GoL portrays as backward and destructive. LSLAs are aided by the government's policy of "Turning land into capital." While never formalized into an officially endorsed policy document, this concept has been articulated and reframed in the context of Lao policy since 2006. Among other aims, the policy intends to transform "unproductive" land systems and practices in rural areas into intensive and "efficient" cash crop and industrial plantations. Apart from an increase in state revenue, investors are supposed to provide wage labor, build infrastructure, transfer technical expertise and import new technology to modernize the agricultural sector and boost production. Finally, the exploitation of land and natural resources through FDI capital investments is a key dimension of the GoL's desire to sustain a GDP growth rate of 8 to 10 percent.

An estimated 5 percent (1.1 million hectares [ha]) of the total land area of the Lao PDR has been granted to investors for development, roughly corresponding to the total area of national paddy rice production.<sup>32</sup> Foreign land investments, particularly from China, Thailand, and Vietnam significantly outweigh investments from all other countries, in terms of both land and capital. The vast expansion of land investment has significantly transformed the national land-scape. Emerging evidence shows that many concessions have had negative impacts on the environment and threatened local livelihoods.<sup>33</sup> Many areas under concession were not effectively managed and converted to alternative uses or were even abandoned, resulting in a loss of anticipated revenues to the GoL.<sup>34</sup> Land concessions have accumulated their fair share of criticism and challenges in Laos. The GoL has acknowledged that governance structures, institutions, and monitoring systems have not been able to keep pace with the fast expansion in land investment and many projects have not performed as contractually agreed upon or were never implemented at all.<sup>35</sup> Therefore, the government issued a moratorium on concessions for mining exploration, rubber, and eucalyptus planting in June 2012.<sup>36</sup> Subsequently, delegations

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    <sup>25</sup>Schönweger et al. 2012.
    <sup>26</sup>Hanssen 2007.
    <sup>27</sup>Shi 2008; Barney 2007.
    <sup>28</sup>Dwyer 2013b.
    <sup>29</sup>Friis 2013; Heinimann and Messerli 2013; Lestrelin, Castella, and Bourgoin 2012; Dwyer 2007.
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<sup>&</sup>lt;sup>29</sup>Friis 2013; Heinimann and Messerli 2013; Lestrelin, Castella, and Bourgoin 2012; Dwyer 2007 <sup>30</sup>Kenney-Lazar 2012; Perera 2011.

<sup>&</sup>lt;sup>31</sup>MAF 2013.

<sup>&</sup>lt;sup>32</sup>Schönweger et al. 2012.

<sup>&</sup>lt;sup>33</sup>Kenney-Lazar 2012; Baird 2011; McAllister 2012; Fullbrook 2010b; Lund 2011; Delang, Toro, and Charlet-Phommachanh 2013.

<sup>&</sup>lt;sup>34</sup>Bell 2014.

<sup>&</sup>lt;sup>35</sup>Vientiane Times, 6 July 2007.

<sup>&</sup>lt;sup>36</sup>GoL 2012.

from the National Assembly examined land issues more closely and data collection teams from the Ministry of Natural Resources and Environment (MoNRE) began conducting a nationwide assessment of LSLA's implementation status and quality of investment, although not enough data has been collected yet to evaluate the performance of concession projects.

#### The Bolaven Plateau, Coffee, and Development Trends

The large majority of coffee production in Laos takes place on the Bolaven plateau, comprising a total of 70,000 ha, representing about 95 percent of the total surface of coffee plantation in the country.<sup>37</sup> Coffee is grown in the three districts of Paksong, Thaténg, and Laongam; 85 percent of Lao coffee is grown in Paksong alone.<sup>38</sup> The plateau is one of the most fertile and ideal places for growing coffee in the country.<sup>39</sup> Even though other agricultural activities exist on the plateau, coffee is the main source of income for the local economy: 69 percent of farms depend on coffee production as their primary source of income.<sup>40</sup> Coffee production explains why the Bolaven plateau stands out with a much lower incidence of poverty compared to other rural areas in the country.<sup>41</sup> Despite the small amount of Lao coffee purchased on the world market, it was the country's largest agricultural export in 2010.<sup>42</sup>

Coffee production in Laos is dominated by Robusta beans – Arabica accounts for only 25 percent, although the volume is increasing. Larger-scale plantations almost exclusively cultivate Catimor, a high-yielding Arabica variety crossed between Timor and Caturra coffee. Despite the national importance of coffee, smallholding coffee production is inefficient. Quality is quite poor and output per ha in Laos is much lower than in Thailand or Vietnam. Farm management is characterized by a near complete lack of nutrient management. Average smallholder coffee production is about 500 to 738 kilograms (kg) of green beans per ha. Out of all coffee produced in Laos 95 percent is exported; only 5 percent is sold on the domestic market. The annual volume of both varieties of green coffee exported has increased from 11,000 tons in 2009 to 28,000 in 2013.

A rapid proliferation of land concessions has been granted by the GoL to investors seeking to capitalize on the plateau's agriculture, forestry, hydropower, and mineral commodity chain potentialities. The first large concession (12,000 ha) was granted to Asia Tech in 1991. While land concessions infrequently granted in the 1990s, they have expanded rapidly since the mid-2000s. Some of the very first LSLAs for coffee were in 2007. Two Vietnamese coffee companies announced that they would lease 1000 hectares of land and possibly add another 5000 ha later. Jean-Christian Tulet was one of the first researchers to point out the emerging land rush on the Bolaven plateau. Already in 2009 he wrote, "Mathematically, this rush cannot actually

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<sup>37</sup>Lao Coffee Board 2012.
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<sup>&</sup>lt;sup>38</sup>Southichack 2009.

<sup>&</sup>lt;sup>39</sup>Tulet 2009; Toro 2012.

<sup>&</sup>lt;sup>40</sup>Tulet 2009.

<sup>&</sup>lt;sup>41</sup>Epprecht et al. 2008.

<sup>&</sup>lt;sup>42</sup>MoIC 2010.

<sup>&</sup>lt;sup>43</sup>For background on this issue, see http://www.coffeeresearch.org/agriculture/varietals.htm (accessed 20 November 2013).

<sup>&</sup>lt;sup>44</sup>Kuit 2010; Galindo and Sallée 2007; Southichack 2009.

<sup>&</sup>lt;sup>45</sup>MoIC 2010

<sup>&</sup>lt;sup>46</sup>Galindo and Sallée 2007.

<sup>&</sup>lt;sup>47</sup>Lao Coffee Association 2013.

<sup>&</sup>lt;sup>48</sup>Toro 2012.

<sup>&</sup>lt;sup>49</sup>Tea & Coffee Trade Journal 2007.

succeed because of the lack of available space." A couple of years later Matthew Toro painted a picture of large-scale investors rapidly transforming the socio-ecological landscapes and land use patterns of the plateau. Claudio Delang and his coauthors also document the extensive scale of LSLA and their largely negative consequences for smallholding coffee farmers.

#### Methods

As the failure of a large proportion of coffee concessions is a central concern of this article we must first develop a working definition of "failure." We employ a three-fold definition, considering a concession to be failed when the company (1) has ceased project operation, abandoned the land, or sold it before the area was developed into a productive plantation that generates profits from coffee production rather than from a speculative land sale or transfer; (2) used less than half of the granted area within three years after signing the concession agreement, or (3) does not provide significantly higher yields than smallholders.<sup>53</sup>

The first part of the definition derives from an obvious precondition of any successful operation. It also frames failures as illegal transfers of land concessions from one company to another and sales where companies failed to turn their concession areas(s) into lucrative operations. Whereas a neoclassical economist may argue that a transfer of holdings may be considered a financial success (at least for the investor) because of value captured, we focus on the actual development of the area. We believe that land speculation reduces land to a single economic function of representing a capital value and that in a rural context such as in Paksong, where land provides a multitude of economic, social, and cultural functions, the inherent trade-offs to potential (alleged) land rent gains (especially if on unimproved land) are not justifiable and contradict GoL intentions in granting those concessions.

The second part of our definition is based on the Lao legal requirements of PM Decree 135 (Article 36), which state that large-scale businesses must be fully established within two to three years after the contract is signed or the GoL will cancel the contract and all assets will be transferred to the state. The final part is based on an important GoL assumption that large investors will provide knowledge, technology, and capital investment, thus modernizing the agricultural sector and increasing production and export volume. This only holds true if the investors outperform current smallholder coffee producers.

Nonetheless, even if concessions have not failed according to this definition, and are "successful," they may still result in negative economic, social, and environmental impacts upon the surrounding communities, ecology, and economy that call into question their legitimacy as development tools. Other definitions of failure or success could have been applied (e.g., profitability of return on capital invested, revenues for the GoL, degree of uncompensated displacement without free, prior, and informed consent). However, we seek to test the effectiveness of concessions by using basic indicators of success that the government deems most important, such as effective implementation of the project, utilization and development of the land, and agricultural productivity in comparison with smallholders.<sup>54</sup>

<sup>&</sup>lt;sup>50</sup>Tulet 2009, 29.

<sup>&</sup>lt;sup>51</sup>Toro 2012.

<sup>&</sup>lt;sup>52</sup>Delang, Toro, and Charlet-Phommachanh 2013.

<sup>&</sup>lt;sup>53</sup> "Significantly higher" is defined by the authors as 0.75t/ha, using the conservative estimate of 0.5t/ha average production achieved by smallholders and adding 50 percent.

<sup>&</sup>lt;sup>54</sup>These are some of the reasons why the GoL has recently considered revoking many concession agreements.

Based on this definition we analyze the processes that lead to the corresponding outcomes and examine the key reasons that help explain those outcomes. First, we examine the overall dimensions and scale of coffee concessions and production in Paksong. We base our study on a national concession inventory, 55 which we crosschecked and updated against other sources of information. The estimated total area conceded in Paksong for coffee is then contrasted with the volume of coffee produced by using national statistical data and calculated into yield per ha. This average is then contrasted with the potential hectare yields estimated by the authors with 2t/ha (green beans), <sup>56</sup> finding a significant lower yield. Second, to better understand the overall low performance of coffee concessions in Paksong derived from the above calculation, our analysis further builds on field study research conducted in 2013 and 2014 in Paksong district on twenty different companies that were selected from the mentioned national inventory, using attributes such as crop, origin of investor, and size of concession area as criteria for the sampling process. By basing our data collection on a middle-n case-study approach, including a higher number of land deals in the study (n = 20), covering a total of 8600 ha, presenting approximately 40 percent of all coffee concession projects and 60 percent of all area granted for coffee in Laos, we have significantly improved the explanatory power for the coffee sector than a single case study could.

Third, to identify actual land use practices and to understand the contexts of coffee concessions in Paksong district, ten villages – in which the sampled companies<sup>57</sup> had at least one concession plot – were selected based on attributes of accessibility and poverty.<sup>58</sup> In each village, we carried out one questionnaire survey with village authorities (two to five people) and one group discussion with villagers (five to fifteen people). The meetings were usually followed by visits to some of the coffee concession areas. To better visualize the dynamic reshuffling of land concessions and land ownership described by villagers in some of the case study villages we decided to contrast geo-referenced land deals based on a 2011 district spatial dataset with ground-referenced data of current land ownership and usage from 2013 and 2014.

To understand the reasons for success and failure, as well as the policy and economic context in Paksong, we conducted semi-structured interviews with government officials from various sectors and administrative levels, company representatives, businesspersons, and employees of NGOs during our field research.

#### **Findings**

#### Paksong, a Highly Contested Landscape

Tulet has noted that the number of approved projects for coffee in Paksong as of the beginning of 2007 covered only 3508 ha.<sup>59</sup> In 2008, concession areas had expanded to 95,621 ha (from seventy-four companies). By using the national concession inventory, a more detailed and refined picture emerges, showing that the majority of area conceded by mid-2010 had been granted for mining explorations. Remarkably, 20,194 ha were granted for eighty-one agricultural investment projects. Coffee concessions make up a large majority of those projects; a majority of the projects are foreign investments (see Figure 1).

<sup>&</sup>lt;sup>55</sup>Schönweger et al. 2012.

<sup>&</sup>lt;sup>56</sup>If not stated otherwise, authors are referring to green-bean production. Where cherry-figures were used, authors converted them into green-bean yields by using the commonly used divisor of six (for background on this issue, see www.thecoffeeguide.org/QA-108 [accessed 9 June 2014]).

<sup>&</sup>lt;sup>57</sup>For two companies none of the host villages were visited, due to organizational and time constraints.

<sup>&</sup>lt;sup>58</sup>Messerli et al. 2008.

<sup>&</sup>lt;sup>59</sup>Tulet 2009.

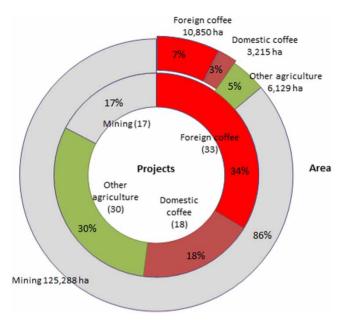


Figure 1. Land concessions in Paksong district by sector, area, and percentage in 2010. Source: Data derived from the national concession inventory; the authors created figure and percentages.

Coffee concessions in Paksong began increasing most rapidly in 2007, continuing through the beginning of 2011, <sup>60</sup> when no more concessions were granted due to the issuance of a provincial moratorium. A high number of villages are hosting coffee concessions - thirtyseven of all eighty-four villages in the district have at least one coffee concession within their administrative boundaries and ten villages host two or more projects.<sup>61</sup> Map 1 below visualizes the concession scramble, at least in terms of land claims in Paksong district. Most of the coffee concession plots granted are easily accessible from the three main roads leading north, east, and southeast from Paksong town. The far west and east are less suitable for coffee because of the lower elevation and soil suitability, especially where the large bauxite exploration concessions are located.

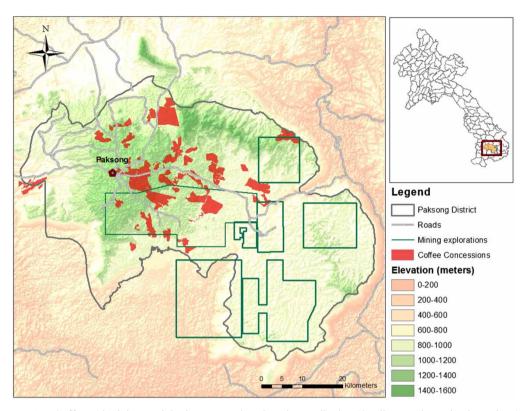
Focusing on our case study data, Table 1 below shows how much land has been acquired by companies in the ten sample villages in comparison to total land and agricultural land in each village. Village heads mentioned that twenty-six companies had been awarded concessions within the village borders, though many of the concessions were never implemented.<sup>62</sup> In at least six of the villages, the amount of conceded land exceeded the amount of designated agricultural land in the village.

#### Contrasting Concession Areas with Production Estimates

Paksong district, with most of its area on the Bolaven plateau, enjoys highly favorable geographical and biophysical conditions for coffee production, yet large-scale plantations in the district

<sup>&</sup>lt;sup>60</sup>The concession inventory is not complete for all of 2010, but seven concessions totaling 2047 were granted already within the first half of 2010. Therefore, it can be assumed that the trend continued for another half year until the beginning of 2011. <sup>61</sup>DoNRE concession data, 2013.

<sup>&</sup>lt;sup>62</sup>Eight companies in addition to the eighteen sample companies we were aware of.



Map 1. Coffee and mining exploitation concessions in Paksong district. (Credit: map drawn by the authors)

have failed to produce yields expected for modern, high-input coffee operations in such an environment. As various coffee investors have observed, the elevation, temperature, rainfall, and soil are ideal – the land is flat and between 1100 and 1300 meters above sea level (MASL), an optimal altitude for growing high-quality Arabica; the average temperature is 19 degrees Celsius; the soil is a rich volcanic variety; and rainfall is greater than 3000 millimeters per year. In this environment, properly managed operations that use sufficient amounts of fertilizer could yield an estimated 2 to 3 tons of green beans per ha. Smallholders have been found capable of producing yields of 573 kg/ha per household, and possibly higher yields in the future of 0.8–1/ha when Catimor trees are mature. By contrast, the Dao-Heuang Group, a leading large-scale coffee producer in Laos, has achieved yields equivalent to 2t/ha. In Phongsaly, the northernmost province of Laos, harvests equivalent to 2–2.7t/ha have been reported.

<sup>&</sup>lt;sup>63</sup>Interview with Vietnamese coffee investor, Paksong, 4 February 2013; see also, the website of Paksong Highland coffee company, http://www.plantheon.co.th/business-paksong.html (accessed 2 May2014).

<sup>&</sup>lt;sup>64</sup>Interviews with Sinouk Sisombat, head of the Lao Coffee Association (LCA), Paksong, February 2013; Khambone Phasouk, coordinator of the Lao Coffee Board (LCB) and Outspan International representative, Paksong, March 2014.

<sup>&</sup>lt;sup>65</sup>Galindo and Sallee 2007.

<sup>&</sup>lt;sup>66</sup>Vientiane Times, 25 March 2014.

<sup>&</sup>lt;sup>67</sup>Ibid.

Table 1. Villages and hosted land concessions by area, investors' origin, and crop.

Village name	Company name	Investors' origin	Crop	Area granted (ha)	Total village area (ha) <sup>a</sup>	Village agric land (ha)
Phanuangdong	Vina	Vietnam	Coffee	280		
	Jee Loi	Laos	Coffee	70		
	Seiko	Laos	Coffee	200		
	Sumulat	Japan	Med. plants	150		
	Total village			700	12,112	873
Xepian	Vico	Laos	Coffee	100		
	Paksong Highland	Thailand	Coffee	100		
	Quang Minh	Vietnam	Coffee	100		
	Mr. Kampai S.	Laos	Livestock	600		
	Total village			900	1994	220
Lak 11	Daknong	Lao-Viet.	Coffee	50		
	Delta	Malaysia	Coffee	200		
	CBF	Vietnam	Coffee	40		
	Pacific Calendar	Malaysia	Coffee	38		
	Youth Dev.	Vietnam	Coffee	100		
	Bolaven Agri. Dev.	Vietnam	Coffee	65		
	Teng Nia	Vietnam	Coffee	NA		
	Total village			543+	3700	163
Lak 12	Daknong	Lao-Viet.	Coffee	60		
	CBF	Vietnam	Coffee	300		
	Outspan	Singapore	Coffee	600		
	T&T	Vietnam	Coffee	105		
	Sao Nam	NA	Coffee	100		
	Total village			1165	8400	400
Lak 15	Daknong	Lao-Viet.	Coffee	30		
	Tana Intra	Laos	Coffee	400		
	Teng Nia	Vietnam	Coffee	400		
	SPC	Vietnam	Coffee	100		
	Outspan	Singapore	Coffee	90		
	S-Cop	NA	Coffee & Veg.	100		
	Total village			1020	1746	54
Charnsavang	SPC	Vietnam	Coffee	100		
	Dao Hueang	Laos	Coffee	280		
	Teng Nia	Vietnam	Coffee	30		
	Paksong Highland	Thailand	Coffee	100		
	Total village			510	1926	300
Phoumarko	Daklak	Vietnam	Coffee	254		
	Total village			254	1320	192
Nongmek	nek Daklak Vietnam	Vietnam	Coffee	172		
	Outspan	Singapore	Coffee	72		
	Total village			244	NA	NA
Xetapoung	Thay Hua	Vietnam	Coffee	76		
	Club Green	Korean	Coffee	85		
	Total village			161	1544	300
Kathuat	Thay Hua	Vietnam	Coffee	77		
	Allieng	Korean	NA	NA		
	Total village			<i>77</i> +	3262	1038

Source: Village heads or deputy village heads.

Note: the source and methods of creation of the data were not always clear.

<sup>&</sup>lt;sup>a</sup>Villages with a large total area (e.g., over 8000 ha) in Laos are often remote and most of the village area is zoned as forest.

Internationally, smallholders have been able to achieve yields of 1.8–3t/ha in Malawi, <sup>68</sup> 2.8–3t/ha in Costa Rica, <sup>69</sup> and an average of 2.5t/ha<sup>70</sup> in Vietnam. <sup>71</sup> However, based on our calculations, <sup>72</sup> using data collected, we estimate that land conceded to

However, based on our calculations, <sup>72</sup> using data collected, we estimate that land conceded to large-scale coffee plantation investors yields only 0.19t/ha on average, only a tenth of the expected yield of 2t/ha. Referring to the concession areas granted to companies over the years, Sinouk Sisombat, head of the Lao Coffee Association (LCA), hit the nail on the head: "Looking at the export data, I can't see it."

Two possible explanations for the low coffee production of concession projects exist: (1) a large proportion of conceded areas has not been productive yet by 2012 or were never productive at all; or (2) coffee concessions are achieving much lower yields than 2t/ha on their used areas.

#### Area Granted vs. Area Used

Despite the large number of hectares granted, and even larger areas requested by concession companies, Tulet points out that the process of claiming land concessions remains hypothetical, <sup>73</sup> as by November 2008 only fifteen concessions, with approximately 1700 ha, were actually in place and producing coffee. The most advanced of these were early arrivers such as DaoHeuang, CBF, Daklak, Saravane coffee, and Tengnia. "Examples of large agriculture exploitations are still few on the Bolaven plateau: even a long time after being allocated, concession lands remain unused," according to Tulet.<sup>74</sup>

The situation has not significantly changed since then. Data collected for the twenty companies on area granted as well as actually used show a large variation between the two (see Table 2): only 57 percent of the total area conceded was used.

Interviews with village authorities enrich the picture of the degree to which plantation plots have been implemented. The twenty companies actually claimed twenty-nine different plots within the ten villages. Only fifteen of these plots were reported to be fully used, however. In five cases a large proportion and in three cases only a small fraction of the plots were used, while in six cases operations had either never started or had fully stopped.

According to the head of the district Department of Natural Resource and Environment (DoNRE), few concessions use the land to its full potential and according to the agreements: "Along the street you see nice coffee trees, but if you drive into the plantation you do not see a proper coffee plantation. Some plantations are only to show off." A staff member of the

<sup>&</sup>lt;sup>68</sup>Makono and Chanika 2008.

<sup>&</sup>lt;sup>69</sup>Tea & Coffee Trade Journal 2001.

<sup>&</sup>lt;sup>70</sup>Including Arabica and Robusta.

<sup>&</sup>lt;sup>71</sup>TechnoServe 2013.

<sup>&</sup>lt;sup>72</sup>The yield rate (0.19t/ha) was calculated using a ratio of the estimated amount of coffee production by large-scale coffee plantations in 2012 (1548t) to the amount of land conceded to such investors that should have been ready for harvest in 2012 (7985 ha). There are no disaggregated data on the production of large farms, but as almost all Arabica beans are exported – 12,090t in 2012 (LCA 2013) – this figure is a good proxy for Arabic production. Sixty-four percent of the production area (LCA 2013), and thus coffee production, is in Paksong (7738t). Based on estimates from the head of the Lao Coffee Board and Outspan representatives, 10–20 percent of Arabica exports come from large-scale producers (1548t, using the 20 percent figure). Prior to 2009, 7985 ha of coffee concessions were granted (Schönweger 2012); coffee from these concessions was due to be harvested by 2012, since Arabica plantations become productive three years after planting. Thus, the average yield of large-scale producers can be calculated at 0.19t/ha.

<sup>&</sup>lt;sup>73</sup>Tulet 2009.

<sup>&</sup>lt;sup>74</sup>Ibid., 76.

Company	Area granted (ha)	Area used (ha)	Percentage
Dao Heuang	306	250 <sup>2</sup> and 3	83
CBF	270	$260^{2}$	96
Daklak	364	$220^{2}$	60
Teng Ngia	320	$300^{2}$	94
Outspan (Xekhatam estate)	831	443 <sup>1</sup>	53
Paksong Highland	3100	$2400^{1}$	77
SPC	215	$110^{1}$	51
Thay Hua	300	$200^{1}$	67
Vico	800	40 (400 sold) <sup>1</sup>	05
Vina	320	0 (abandoned) <sup>1</sup>	0
Daknong	100	$0 \text{ (sold)}^2 \text{ and } 3$	0
Club Green	100	$85^{2}$	85
Tana Intra	500	$0 \text{ (sold)}^{1 \text{ and } 3}$	0
Quang Minh	265	165 (100 ha sold) <sup>1</sup>	62
Jee Loi	70	$70^{1 \text{ and } 3}$	100
Delta	200	$36^{3}$	18

Table 2. Company area granted vs. used (2013).

Sources: 1: Estimates from the company. 2: Estimates provided by key informant working for one of the coffee companies. 3: Estimates from village authorities.

200

100

100

169

8630

 $200^{1}$ 

 $50^{2}$ 

 $75^{1}$ 

 $70^{1}$ 

4974

100

50

75

41

57

Paksong District Agriculture and Forestry Office (DAFO)<sup>75</sup> complained that only 10 to 20 percent of domestic companies were currently using significant proportions of their granted coffee concessions, a proportion much lower than even our data on foreign concessions suggests.

These data show that there is a significant gap between conceded and actually used area for coffee production. Our fieldwork brought several different explanations to the fore.

In some cases, resistance from the targeted communities and other parts of society have forced companies to give up some of their allocated land. Villagers from Lak 15, for example, complained to district authorities that the SPC company had no right to encroach upon village land, as village authorities had not given their consent. In the case of Outspan, a media outcry<sup>76</sup> in 2012 led the company to cease operations on the 200 ha of land that villagers had contested.

In other cases, land could not be used because some of the conceded area consisted of unsuitable land, such as in the case of Thay Hua and Outspan. Outspan is also still waiting to be allocated large amounts of land that they were granted in their MOUs and also for the government to renegotiate the size and location of a 600-ha estate that lies in an area controlled by the Lao People's Army. In the case of the Bolaven Farm, a nearby bauxite mining operation overlaps with 100 ha of the Bolaven concession and the company is thus hesitant to invest further in the contested area. "The problem is that the bauxite concession was approved by the central

<sup>76</sup>Corpwatch 2012; LIWG 2012.

T&T

Total

Youth Development

Saigon Construction

Bolaven Farm

<sup>&</sup>lt;sup>75</sup>As relayed to us by the coordinator of the LCB, Paksong, March 2014.

Company	Plantation size (ha)	Expected production (metric tons)	Yield (metric tons green beans/ha)
Bolaven Dev. Co.	100	167	1.67
CBF	260	400	1.54
Daklak	220	333	1.52
M.W Holding Co., Ltd	116	167	1.44
Bolavens Farm	60	100	1.67
Paksong Highland	2400	833	0.35
SPC	120	83	0.69
T&T	200	250	1.25
Dao Heuang	250	500	2.00
Thai Hua	200	333	1.67
Club Green (Green Hills)	300	100	0.33
S.R.G Joint Venture Co.	300	83	0.28
Outspan	1800	250	0.14
OK Lao Coffee Farms	20	17	0.83
Ying Sok Xay	600	0	0
Bolaven Agri. Dev	500	250	0.5
Total	7446	3866	0.52

Table 3. Expected yield from estates by December 2013.

Source: Dataset provided by key informant working for one of the coffee companies. Production figures were stated for cherries and converted by the authors to green bean production and yields.

government, but our own concession only by the Provincial and District Authorities ... there is not much we can do."<sup>77</sup>

Some companies were allocated the right amount of land in suitable areas but did not have the financial means to develop the area completely. Vincafe (or Vina), the company mentioned above that aimed to gain an initial 1000 ha and expand to 3000–5000 ha, ultimately only received 320 ha. Other companies have apparently struggled to come up with the financial requirement to maintain operations on the large plots they were granted. Vietnamese companies, especially, such as Vina, had difficulties after their parent companies in Vietnam ran into financial problems and later collapsed.<sup>78</sup>

Other investors did not use all of their land because they sold part of it to another company. Vico, for example, was granted 800 ha early on, but then sold 400 ha. Now the company is sitting on the rest of the land; only 40 ha are currently in use. Some cases of companies leaving land idle appear to be linked to the impressive dynamic of concession land transfers from one company to another, which we discuss later in more detail.

#### Actual Land Use and Yields

The study has thus far shown that coffee concessions are surprisingly unproductive considering the substantial area granted to them and the ideal biophysical characteristics of the region. Such low productivity is due in part to the fact that areas are only partially used or not used at all for actual coffee production. Additionally, the actual yield in operational areas is surprisingly low, as we demonstrate in this section. Table 3 shows a dataset of 2013 coffee production and yield

<sup>&</sup>lt;sup>77</sup>Interview with company manager, Pakse, February 2013.

<sup>&</sup>lt;sup>78</sup>Reuters 2013.

estimates by sixteen different company estates, <sup>79</sup> including sampled companies or such with at least one plot in one of the ten sample villages. Projected yields were between 0.14 to 2t/ha, at or below the achievable yield of 2t/ha. The average yield of 0.52t/ha shows that companies are not more productive than smallholders.

Interviews with village authorities shed some light on why company yields are lower than expected. Of the twenty-nine concession plots in the ten visited villages, only five were described by village authorities as well managed, with rows of healthy trees providing good yields. Six of the plots were described as being maintained at a quality equal to or only slightly higher than the coffee gardens of smallholders; seventeen plots were described as being badly managed or not managed at all or abandoned with little to no production. While quality assessments by village authorities can be visual and subjective, and thus are not accurate estimates for actual yields, they are an approximation of quality. However, most villagers produce coffee themselves, live next to the concessions, and work on plantations, thus, they are well aware of the differences in quantity and quality between their own and the company's plantations.

Several factors account for the poor yields of coffee concessionaires, including (1) investors' financial constraints, (2) poor management, negligence, or lack of technical skills, (3) labor issues, (4) allocation or use of unsuitable land, and (5) impacts from weather and pests.

First, financial issues were a major constraint for concession investors, many of which did not appear to have stable sources of financial capital. The village chief in Lak 11 explained that Daknong did not have the financial capacity to buy enough inputs or to pay for enough workers on the large amount of its leased land. The company director had even informed the district governor of these problems, explaining in a letter that the company could not afford to replant coffee trees that had died from frost. The last remaining employee on the Vina estate, guarding the decaying infrastructure and overgrown coffee trees, explained that his company had failed to produce any significant yields since 2011 because the Vincafé headquarters in Vietnam did not transfer enough funds to the Lao estate. Workers were not paid their salaries and they left soon after to start working on other plantations. Referring especially to domestic and Vietnamese companies, key informants, including company representatives and governmental officials, often cited the lack of financial means to buy inputs, pay salaries, and run a well-maintained, modern operation. Properly running an established plantation is especially challenging for companies with small reserves of capital that can be drawn on when coffee prices fall or when parent companies cut off financial transfers to their Lao subsidiaries.

Second, even when companies are financially secure, many manage their plantations poorly, due to negligence or lack of technical skills and expertise to operate a coffee plantation, as Mr. Sinouk observed. This perspective is echoed in PAFO's technical opinion of the Daknong company:

Daknong seems unwilling to develop this project properly. Even the small area of eight ha that had been planted, was planted in a very basic and simple manner, not differing from how villagers do it. The few coffee trees planted are, however, currently abandoned and most trees died already.

<sup>&</sup>lt;sup>79</sup>The original dataset, provided by a key informant from one of the companies, comprised estimated yields for thirty-one companies. The data collected by this company are only yield estimates, as the yearly harvest was still ongoing when the survey was conducted (December 2013). The attribute "Plantation size" may also include areas for streets, tracks, general infrastructure, empty areas, or newly planted areas and therefore does not equal the exact area planted with trees.

<sup>&</sup>lt;sup>80</sup>Request letter from the Daknong company director to the provincial governor requesting a re-survey of concession land overlapping with the concession granted to CSS Champa Lao Company, 25 May 2012.

Paksong Highland, which took over most of the concession area from Asia Tech,<sup>81</sup> received 100 ha in Xepian village around five years ago. However, the company has not been able to properly manage the large plantation: "The area has low returns, because the company does not pay enough attention to the coffee trees," village authorities explained.<sup>82</sup> Similarly, a Daklak plantation worker in Phoumakko village reported that in 2012 the trees did not bear enough coffee and as a result the company replaced them with new trees. The new plantations still appear to only be of average quality because not enough input is provided in terms of weeding and fertilizer.

Third, companies are too large and cannot control the weeds.<sup>83</sup> "The workers are low skilled and not motivated. Villagers' coffee gardens look much nicer, because we work in a way that is natural (*thammasat*) and leave shade trees."<sup>84</sup> Villagers and government officials often cited the clearing of all vegetation, especially the removal of shade trees, as an important cause of poor tree growth in concession plantations. From their side, companies complained that workers had not applied inputs correctly or had stolen fertilizer and seedlings. One company official explained,

Villagers know we are a big foreign company and therefore think that we automatically must have a lot of money. It seems to be the common perception that if workers cheat or if some bags of fertilizer or saplings disappear this would not matter to us anyway.

An estate manager who wished to recruit permanent local staff said, "People don't want to work for longer periods. They only want a day-by-day job to earn some additional money, besides working on their own farm." Some companies struggle to keep workers, because they set up an employment system whereby local households are paid to maintain a specific area, but they do not realize that many households prefer to be paid daily (he sao kin kham). 85

Fourth, in some cases, companies were growing coffee on unsuitable land, but there was disagreement as to whose fault this was. The manager from the SPC estate complained that the land granted to them had low soil quality and was too rocky to achieve higher yields (Photo 1). A government official similarly noted, "In general, coffee is a correct option for Paksong, but not everywhere. We [referring to the GoL] also tell investors that sometimes the area is not good land for coffee, but investors often don't listen." In Nongmek, village authorities mentioned that in 2012 Daklak had serious problems with pests, as they planted Arabica coffee instead of Robusta, which grows much better in the lower parts of Paksong.

Finally, weather and pests have contributed to significant lower yields in some years, for both large and small-scale plantations alike, and to the death of several hundred hectares of young coffee plantations: 3000 ha of coffee plantations were destroyed in January 2014 due to frost during a period of unusually low temperatures. Fing Sok Xai, a Chinese concession of 600 ha, was unable to harvest any coffee in 2014 because all of their trees had died. A cold wave at the end of 2007 and beginning of 2008 had similar devastating effects for some companies,

<sup>&</sup>lt;sup>81</sup>Asia Tech, a Thai company, was the first company with a large concession granted already in 1991. Initially requesting 16,000 ha in 1990, the investor was ultimately granted 12,000 ha. However, the eucalyptus plantation and all other agricultural projects of Asia Tech failed and the company stopped its operations by 1998 (Lang 2002).

<sup>&</sup>lt;sup>82</sup>Interview with village authorities, Xepian, February 2013.

<sup>&</sup>lt;sup>83</sup>Interview with village head, Lak 12, February 2013. Lak 12 hosts five different coffee concessions.

<sup>&</sup>lt;sup>84</sup>Interestingly, when we asked them what they do when they have problems with pests, they answered that they also use chemicals.

<sup>&</sup>lt;sup>85</sup>Interview with village head, Paksong, February 2013. Meaning "to work in the morning in order to have something to eat in the evening."

<sup>86</sup>Lao economy, 14 March 2014.

<sup>&</sup>lt;sup>87</sup>Interview with Outspan representative, Paksong, 13 February 2014.



Photo 1. Coffee plantation on rocky soil in Chansavang village. (Credit: Oliver Schönweger)

including Daknong and Vico. Other problems had been reported with stem borers, one of the most devastating pests to Arabica trees.<sup>88</sup>

#### Concessions for Sale!

Granted concessions do not necessarily translate into operational areas and oftentimes those that are actually planted with coffee do not produce high yields. Evidence from the field provides additional insights into why some concessions have failed: old and new concession areas in Paksong are reshuffled to an astonishing degree. Companies transfer plots of land to other investors or are actively seeking to do so. Companies seek to sell their holdings for many reasons, from disappointments over low yields to the lack of land allocated compared to what was expected or poor economic results. Evidence suggests that the business of some coffee concessions is less about planting or selling coffee and more about profitably transferring land use rights.

The process by which companies transfer concessions between one another is rather opaque. By law, companies that cease operation or do not use the land three years after it is granted are required to return the land to the state, after which the GoL may lease it to a different investor. In practice, however, concession land in Paksong is commonly transferred between companies directly. Seven of the twenty sampled companies leased plots that had originally been conceded

<sup>&</sup>lt;sup>88</sup>Larvae of a bug mining into the stem of coffee trees and causing fragility, greater susceptibility to disease, or the complete destruction of especially younger trees.
<sup>89</sup>GoL 2009.



Photo 2. Abandoned coffee plantation in Phanuandong village. (Credit: Oliver Schönweger)

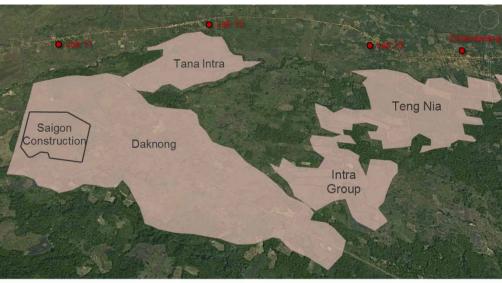
to another company. Additionally, four of the companies sold all or some of their area and six companies were planning to sell their holdings.

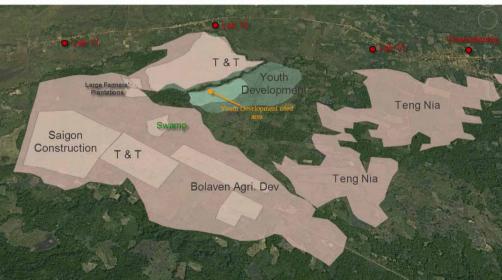
The area around the Lak 11, depicted in Maps 2–3, illustrates the dynamics of the land concession reshuffling. Map 2 shows the concession landscape before 2011; Map 3 shows the same area three years later after Daknong sold most of the area to at least two companies. By 2014 Daknong, Tana Intra, and Inter Group no longer held land in this area while a new investor, Youth Development, had gained control of additional concession area, although it had developed only one-third of the total area granted within three years. Villagers from Lak 11 have started using the northwestern parts of the former Daknong concession, which had remained idle for several years. According to the head of DoNRE this is hardly unusual: "After three or four years, villagers are often taking the land back, if unused, [to] clear and use the land for their own purpose, mainly for coffee gardens. Sometimes companies come back later on and complain about the villagers to the GoL."

We visited the estates shown on the map during our field research in 2014. Management staff with whom we spoke – from both Bolivan Agricultural Development and Saigon Construction – expressed an interest in selling. However, companies elsewhere in Paksong, including Vina, Daklak, and Quang Minh, were also interested in selling.

Quang Minh and Daklak appear unsatisfied with the amount of land they were granted, as they expected an area larger in size and contiguous. The core business of both companies is rubber, which they have already planted on several thousand hectares, and thus their relatively small coffee operations do not seem worth the trouble. Vina, Saigon Construction, and other

<sup>&</sup>lt;sup>90</sup>Interview with Mr. Khambao, Paksong, 20 March 2013.





Maps 2 and 3. Top: Geo-referenced concessions around villages Lak 11, 12, and 15 in 2011. Bottom: Concession landscape within same area in 2014.

Source: Background satellite images from Google Earth, April 2014. Left: 2011 shape files from DoNRE with 2011 data received in February 2013. Right: shape files from DoNRE overlaid with ground referenced data from the field, March 2014.

Vietnamese companies were shaken by the Vietnamese coffee crash. According to industry reports, of the 127 coffee exporting firms operating in Vietnam in 2012, 56 had ceased trading or shifted to other businesses by April 2013, after defaulting on loans. 91 As companies in Vietnam struggled (especially state-owned enterprises), operations in Laos were either

<sup>&</sup>lt;sup>91</sup>Reuters 2013.

relinquished or money transfers to Laos were drastically reduced, resulting in a low quality of estate management and maintenance. The price of agricultural land in Paksong ranges from US\$1500 to \$15,000 per ha, depending on the location and development of the area, but yearly fees for land concessions are between \$5.00 and \$20.00 per ha. As coffee concession agreements can be up to thirty-five years, the companies are paying between \$175 and \$700 per ha for the whole period. Although a land concession is not equal to land ownership, companies are able to secure long-term land use rights at a fraction of the price of the actual land market. As Dirk Löhr points out for a similar situation in Kampong Cham Province, Cambodia, in reality the government subsidizes the holders of land concessions as it undervalues farmland. 92 Vina is currently asking 5 million kip/ha to sell their coffee plantation to a Thai company. 93 This "transfer" price is considerably higher than the concession fees that Vina has to pay. While the potential buyer avoids the challenges of acquiring a concession, Vina seemingly has enough power and social capital to transfer its concession – despite the fact that the company has neglected its plantation for more than two years. One informant, who preferred to remain anonymous, expressed his concern that many investors were less interested in producing coffee than they were in showing land holdings on paper to shareholders or banks to get or extend loans; "Investors are often professional in investment, but are not professional in growing coffee." Another informant pointed out that one of the biggest problems in Paksong is the increase in land speculation by domestic investors who buy plots from local farmers or lease areas from the state to resell the same area to foreign investors who are not allowed to buy land or do not have the necessary connections to gain land concessions, which have also become more difficult to attain since the moratorium. According to him, a company would only use a small fraction of the larger amount of requested land to show some progress to relevant authorities. Later, part or all of the concession area would be transferred to another company, appearing to be a de facto land sale. Other informants (who also preferred to remain anonymous) pointed out that these transfers are often only possible with the aid of government officials. Several of the studied companies no doubt profited from their land transfers. Whether the original intent was land investment rather than coffee production is a matter of speculation.

#### Discussion

The failures of coffee estate plantations in Paksong demonstrate that the GoL has not been able to generate the benefits they expected from coffee concessions. Instead of efficiently utilizing land and increasing total coffee production, many concession owners ceased operations or delayed their investment despite the agreements they signed. Companies failed to use the large plots granted to them and a number of companies sold their plots or are currently looking for buyers. Fourteen of the twenty companies studied have failed (see Table 4) according to one or more dimensions of the definition provided earlier. The reality is that productive coffee concessions over 300 ha in Paksong are rare. In most cases, the granted area does not equal operational area, even many years after agreements have been signed.

Concessions have failed largely due to a mix of internal constraints and external limitations. Internal constraints include lack of or poor capital, skills, resources, or management; external limitations involve factors such as land suitability, labor problems, price fluctuation, slow land allocation, and insufficient government support.

<sup>&</sup>lt;sup>92</sup>Löhr 2010.

<sup>&</sup>lt;sup>93</sup>Email communication with a businessman and resident of Paksong, April 2014.

Table 4. Summary table of failed land investments.

	Type of failure:			
Company	Ceased operation, sold or currently trying to sell plantations	Using less than 50 percent of area granted within three years after granting	No significant higher yield than smallholder	Not failed
Saigon Construction Daklak Teng Ngia Tana Intra Quang Minh Vico Vina Daknong Youth Development Delta Outspan Paksong Highland SPC Club Green Bolaven Farm Dao Heuang CBF Thay Hua Jee Loi	X X X X X X X	X X X X X	X X X X X	X X X X X
T&T Total	8	6	5	X 6

#### Lack of Capital and Inadequate Plantation Management

Agricultural commodity booms have transformed whole regions of Southeast Asia. <sup>94</sup> Derek Hall highlights lessons from the key boom crops in Southeast Asia that are useful for the LSLA discussion. <sup>95</sup> In addition to shifting land controls and increasing land values, booms can also go bust. Especially during times of crisis, the size of a large plantation becomes a handicap if mechanization is difficult, especially when coffee prices are low but management and labor costs are high, as the numbers of workers is proportional to the number of cultivated hectares. <sup>96</sup> During such times, households survive by exploiting unpaid household labor and living from residual income, whereas large operations must continue to pay wages or risk production delays. According to Tulet, the GoL has promoted large-scale coffee production despite all examples to the contrary, <sup>97</sup> relying on unproven assumptions that farmland can be expanded by means of mechanization and farming can be optimized by economies of scale. Apart from the uneven terrain in Paksong, which poses challenges for mechanization, many companies cannot afford mechanization because of the high initial investment costs.

The perception of the LSLA as an adequate development approach in the coffee sector has to be challenged even more, as various scholars, have pointed out that coffee is a crop with high

<sup>&</sup>lt;sup>94</sup>Doutriaux, Geisler, and Shively 2008.

<sup>95</sup>Hall 2011.

<sup>&</sup>lt;sup>96</sup>Tulet 2009.

<sup>97</sup>Ibid.

dependence on a "forest rent" in form of soil fertility, which is rapidly drawn down when production is permanent. <sup>98</sup> The current process of uprooting shade trees and planting mainly Catimor plants is worrisome, as it is being done not just by large investors but also by small-holders who are replacing their Robusta stocks with Catimor. <sup>99</sup> Despite the obvious advantages of Catimor production, FAO warns that this variety provides very low yields and plants may even die if poorly managed, especially if shade is not provided. <sup>100</sup> Our study has shown that several companies regard the higher requirement for more inputs and maintenance, and thus more capital, as a bottleneck. That this variety is suitable for smallholders makes it even more questionable.

#### Labor Issues

This study shows how useful a labor perspective can be in the Paksong coffee context. For on top of physical and financial constraints, another major element required for benefiting from economy of scale is absent: the quality and quantity of available labor. Our findings illustrates how the increased demand for, especially at harvest time, starts to become a problem, not only in terms of costs, but also availability of laborers. Labor shortages occur in part because the Arabica harvest coincides with the harvesting of rice and because many households are busy taking care of their own coffee gardens. Additionally, out-migration of youth from rural to urban areas, and from Laos to Thailand, <sup>101</sup> may further explain shortages of labor.

In addition to a lack of workers, companies often blamed production problems on worker's performance. Vietnamese estate managers claimed that local workers are less reliable and much slower than the Vietnamese laborers they prefer. Investors additionally complained that local workers are often absent, celebrating Lao festivities. Absenteeism is not unique to the coffee sector, however. The Asian Development Bank (ADB) found that businesses in Laos in general prefer foreign rather than Lao labor because they consider the former more productive and easier to communicate with, especially if they come from the same nation as the investor. Villager workers, on the other hand, complain about low wages, payment delays, long periods between payments, and the rude behavior of work supervisors. Strong parallels can be found in the rubber or pulp tree plantation sector. Villager workers are less reliable and much slowers are less reliable and slowers are less reliable and slowers are less rel

Our study also indicates that the management of plantations is further complicated when villagers who are frustrated about the loss of communal or individual land live next to or even work on the plantation. These villagers view the plantation as an unjust appropriation of their land and thus take a hostile attitude toward the company, especially if they were paid little or no compensation for the lost land. While direct resistance from locals is rare, indirect acts of sabotage appear more common. More than simple opportunism, thievery may also be a form of animosity toward the company and the wasting of inputs and improper handling of equipment may be acts of sabotage as much as due to ignorance or carelessness. An increasing literature on the "reactions from below" and resistance against LSLAs<sup>105</sup> as a form of "weapons of the weak" sheds

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<sup>98</sup>Hall 2011; Potter 2008.

<sup>99</sup>Tulet 2009.

<sup>100</sup>FAO 2005.

<sup>101</sup>Barney 2012b.

<sup>102</sup>ADB 2010.

<sup>103</sup>Baird 2010.

<sup>104</sup>Borras and Franco 2013.
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<sup>105</sup> McAllister 2012; Kenney-Lazar 2012.106 Scott 1986, 2009.

additional light on the heterogeneity of responses to land concessions from local communities and this has an important impact upon a company's prospects of success.

Labor issues are essential ingredients in successful agricultural operations in coffee concessions in Paksong for three reasons: the laborers themselves (quality of their work, unreliability, carelessness, etc.), the poor management of labor by the company, and the lack of labor in the area. Companies have to deal with significant opportunity costs and labor is clearly a key factor in the suboptimal performance and low yields of many coffee concessions.

#### Government Support and Land Allocation

Our study has shown that in addition to a large range of internal factors that contribute to the failure of concessions, companies also face external constraints that prevent them from reaching their goals and may even lead to poorer performance than in smallholder production. Older and better-connected companies seem to perform better; companies with experience in at least one step of the coffee value chain do so as well. But other companies struggle to navigate in Laos's social and business environment, where value chains and decision-making processes are opaque and not fully understood. First, local GoL agencies appear to be unable to monitor the progress of investors adequately or to provide the services required to facilitate and support the allocation of suitable and uncontested land, an important factor in the failure of concessions. When the same plot is given to two different investors or is contested by other stakeholders, both the concession holders and local farmers become insecure and this increases opportunity costs for the companies and decreases their likelihood of success.

In addition to internal and external factors, the reshuffling of concessions and opaque transfers of plots between investors also contribute to the failure of concessions. <sup>107</sup> This situation can arise from inaction, lack of awareness, or helplessness on the part of local GoL agencies. It can also be a role the agencies play intentionally, as facilitators and arbiters who interpret the law according to their own understanding and interests. <sup>108</sup> Windows of opportunity are thus opened for land speculators. Our study indicates that occupying land for the purposes of selling or leasing it later on, especially considering the high rate of coffee concession failures, is an investment strategy that may be less risky and cumbersome than coffee production, yet still profitable for investors. Even companies that genuinely intended to establish a coffee plantation, but failed for any of the reasons outlined above, may be better off in possession of concession land, which they can lease, sell, or use to raise additional funds.

In light of the GoL's policy to promote coffee production and the already limited area on the Bolaven plateau, land values will likely continue to rise due to increasing competition. "Competition for coffee space," a term that Sylvia Doutriaux and her coauthors have applied to coffee production in Vietnam's Central Highlands, 109 applies as well to Laos and produces winners and losers here too. The potential benefits of coffee production are substantial, but they are distributed unevenly, not only between small- and large-scale producers, but also among households and villages due to differences in political, social, and ethnic connections. Additionally, elite capture may explain the success of some land concessions and reveal the reasons behind land transfer among companies for certain plots of land, as Ian Baird has shown for Cambodia. 110

<sup>&</sup>lt;sup>107</sup>Such transfers also lead to incorrect official data sets on current coffee concessions and ownership.
<sup>108</sup>Hall 2011.

<sup>&</sup>lt;sup>109</sup>Doutriaux et al. 2008, 528.

<sup>110</sup>Baird 2014.

The types and causes of failures we have observed and identified lend to a critique of the superiority of the LSLA model and are a contribution to the large-scale vs. small-scale agricultural debate. Our evidence for the coffee sector in Laos, along with data on other countries and sectors in the emerging literature, <sup>111</sup> adds to an increasingly large body of evidence that demonstrates that LSLAs often fail from the beginning or during the process of operation and that the scale and extent of the phenomenon reported is little more than initial business agreements and wishful hectare numbers, rather than actual land allocated and crops planted in the ground. This new evidence, taken together with literature on land investments "failing" to provide benefits for the local population in the form of labor opportunities<sup>112</sup> or infrastructure development, <sup>113</sup> and for the central government or macro-economy <sup>114</sup> of developing countries, invites discussion and debate concerning alternative development models. The agricultural efficiency of small-scale family farming has been increasingly recognized, especially in light of environmental sustainability, yields per input, value added per unit area, and their capacity to evolve. <sup>115</sup>

Coffee is, however, just one of many crops that the GoL has sought to develop on a large scale, and while our study does not prove the superiority of one system over another, we echo Hall's call to rethink the necessity of LSLAs as a stimulus for agricultural development. We acknowledge that smallholder coffee farming in Laos still requires major efforts to improve quality and quantity, but we also show that it is dangerous to assume that large-scale plantations lead automatically to the modernization of a whole sector by increasing production volume through land use optimization, mechanization, and technical expertise. Our study provides evidence that large-scale coffee plantations, if implemented, do not outperform smallholders. Therefore, the granting of coffee concessions must be understood as based upon political choices and this all too often "pre-empts alternative organizational frameworks." 117

It is even more surprising that the GoL has ignored important lessons from Vietnam, a country with enormous influence in the Lao PDR politically and economically. Vietnam's coffee boom and its increase in coffee production have been based mainly on small farmers with an average field size of only 1.2 ha. Finally, in trying to better understand the GoL vision for agricultural development and the rational for granting LSLAs we point to the general preference of Southeast Asian state actors for permanent agriculture over swidden, or in the coffee context of Paksong, permanent coffee plantations over smallholders' coffee gardens. Clearing whole plots following the planting of symmetric rows of (coffee) trees fits better with the vision of how modern agriculture and efficiency are envisaged, compared with the seemingly random tree planting of households within existing secondary forests. This "modern" vision is not limited to government officials along; in some cases villagers share this vision as well.

#### **Concluding Remarks and Recommendations**

Recently, the UN Special Rapporteur on the Right to Food issued a call to rethink agricultural production at a global level, asking governments to shift subsidies and research funding from

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111Land Matrix 2013; Bräutigam and Zang 2013.
112Li 2011; Baird 2010, 2011.
113Schönweger et al. 2012.
114Schumman et al. 2006.
115Cochet and Merlet 2011.
116Hall 2011.
117Ibid.
118ACET 2014.
119Hall 2011; Cramb et al. 2009; Potter 2001.
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agro-industrial monoculture to smallholder "agro-ecological" methods. <sup>120</sup> The GoL's Lao Coffee Sector Development Strategy is a significant step in this direction as it acknowledges that smallholder farms play a more important role in poverty alleviation and community development and have greater resilience to economic hazards than large-scale industrial plantations. <sup>121</sup> This strategy holds that future expansion of coffee production should aim for a ratio of at least 75 percent volume produced by smallholder farmers, with the remainder produced by large coffee estate and industrial plantations. Yet despite the acknowledgment that "land availability is not clearly established or secured, and may quickly reach its limits," the strategy foresees an additional expansion of 8000 ha for large-scale coffee plantation concessions. <sup>122</sup> Thus, competition in Paksong and other coffee producing regions, by both large-scale investors and smallholders, is likely to increase. The future of coffee production in Paksong is also dependent on the trajectories of other sectors and land use projects. The uncovering of significant bauxite deposits in the current exploration areas and subsequent approval for exploitation could threaten both small and large coffee plantations.

The competitive advantage of LSLAs and economies of scale are often assumed rather than proven: in the Paksong coffee landscape these have not led to any significant increase in production or modernization of the sector. Deals approved but not implemented create significant opportunity costs, leading to increasing land pressure as alternative and more suitable land uses are blocked or delayed. Paradoxically, land resources are often wasted, which is the opposite of what governments have envisioned. The long-term effects of LSLAs include degradation of the environment, speculation on land prices, increased rents, landlessness, and missed development opportunities. These have implications for the government, the local population, and the companies. In order to counteract this tendency, Löhr suggests the introduction of a site-value tax charged on the value of unimproved land, calculated according to the yields that can be earned via the best possible use. Users would therefore have to ensure that their site is used efficiently or they would lose money. Faced with such a tax, investors would have no incentive to hold more land than they could effectively operate. <sup>123</sup>

Additionally, institutional reconfiguration will be required in Laos and in other countries to guarantee optimum management of land resources. Investor screening systems ought to be developed, while penalties and contracts have to be enforced. Increased transparency in the process of conceding and allocating land is necessary. Existing and new plantations, small- and large-scale growers, should have secure land rights, and the actual use of conceded land needs to be verified in order to avoid wasted land resources. Land that has not been cultivated according to signed agreements (without an acceptable explanation) should be retrieved and allocated to other users. In such cases, land should be returned to communities, land that should have been given to investors in the first case only after vetting the company's credibility, its social and environmental commitment, and its plans to support and collaborate with smallholder producers. Investors should have previous experience with at least one step of the value chain of the crop they invest in. This will ensure a minimum of expertise in the respective sector and discourage land speculation.

In researching LSLAs key assumptions about how LSLAs operate must be questioned and feasible alternatives explored. In addition to analyzing land deals and their consequences, parallel debates are needed to increase the potential of smallholder farming. This endeavor requires going

<sup>&</sup>lt;sup>120</sup>The Ecologist 2014.

<sup>&</sup>lt;sup>121</sup>LCB 2012.

<sup>&</sup>lt;sup>122</sup>Ibid., 21.

<sup>123</sup>Löhr 2010.

beyond individual case studies of impacts or general synthesis papers to examine a key issue for most economies: comparing the productivity, employment potential, and long-term sustainability of industrial capitalist agriculture versus alternative land use models such as well-supported smallholder farming. The hectare-centric emphasis of much of the land grabbing literature has so far missed the differences between types of "land" and hectares (granted, allocated, cleared, and leveled, highly fertile, irrigated, arid grassland, used, barren, etc.) and the extent to which many deals have failed. Studies that shed light on the (dis-)economies of scale and the existing linkages between size of plantations, quality of production, and profit margins are further needed.

#### Acknowledgments

The authors are indebted to the Ministry of Natural Resource and Environment, Lao PDR, for granting access to national concession data and facilitating field visits. Thanks also to Vong Nanhthavong for his support during field research and his valuable insights into the Lao regulatory context. Finally, constructive comments provided by Miles Kenney-Lazar, Mike Dwyer, and *CAS* peer reviewers are most appreciated.

#### **Funding**

This research was supported by the Centre for Development and Environment, University of Bern, Bern, Switzerland. We are also grateful for the support from the Swiss Network for International Studies (SNIS) enabling the research project entitled, "Large-scale land acquisitions in Southeast Asia: Rural transformations between global agendas and peoples' right to food" under which research for this study was undertaken. No potential conflict of interest was reported by the authors.

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