



The rural informal economy

Understanding drivers and livelihood impacts in agriculture, timber and mining

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The informal economy – broadly defined as economic activity that is not subject to government regulation or taxation – supports some of the most vulnerable in society. In sub-Saharan Africa, it generates 90 per cent of employment opportunities in some countries, and contributes up to 38 per cent of GDP in others.

In rural areas, the informal economy sustains livelihoods of impoverished populations through natural resource and land based economic activities such as farming, logging and mining. The rural informal economy is messy and complex: activities are at times classified as illegal yet are often rooted in traditional resource and land rights. Local communities may receive significant income, but sustainability of resource use is a pressing concern as informal trade increasingly serves ever-expanding urban and international markets.

This paper examines the drivers and livelihood implications of informality in agriculture, logging, and mining in sub-Saharan Africa. It finds commonalities and differences across three areas: rights, regulations and economic factors. Aimed at researchers and practitioners, the paper demonstrates that development interventions in resource governance need to be strongly grounded in the complex reality of the rural informal economy in order to benefit impoverished communities.

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Executive summary

The informal economy is huge and expanding across sub-Saharan Africa – it generates 90 per cent of employment opportunities in some countries and contributes up to 38 per cent of GDP in others. It supports some of the most vulnerable people in society: women, youth and the rural poor.

The rural informal economy (economic activities performed by rural populations linked to informal trading and markets) in particular is critical to rural livelihoods. Rural informality largely relates to the natural resource base on which local people rely for their living, i.e. agricultural production and the extraction of natural resources (e.g. timber and minerals). Although at times equated with illegality and thus facing strong pressure to formalise, informal sector activities are in fact rooted in customary land and resource governance norms traditionally practiced by local communities. The rural informal economy – in particular its drivers and livelihood impacts across sectors – has received little attention to date.

This paper analyses the drivers and livelihood impacts of informality in agriculture, logging and mining. An analytical framework is presented that focuses on rights, regulations and economics as key areas of inquiry. These areas are then examined at three spatial scales: the political economy, value chains, and rural actors.

The main findings of this paper are as follows:

- The key drivers of rural informality across the selected sectors include persisting customary rights and norms, exclusionary and costly regulations for rural actors, as well as high economic profits for povertystricken communities.
- Commonalities across the three sectors are the concomitance of complex informal rules, the participation of government officials and informality practiced as a form of resistance against unjust legislation, as well as very few successful policy interventions.
- Differences, on the other hand, include the origin of consumer demand (domestic or international), ownership rights granted to rural populations (land rights may be granted but forest and mining rights reserved for the state), as well as varying degrees of illegality (more pronounced in timber and mining).

The paper also suggests a future research agenda. Ultimately informality is, in fact, the daily reality of natural resource extraction and production for a large part of the population in sub-Saharan Africa. Policymakers, researchers and practitioners should acknowledge its ubiquity and recognise its complexity in research and policy design. Future development interventions aiming to reduce poverty need to be strongly grounded in the reality of the rural informal economy.

Introduction

What is informality?

The informal economy - broadly defined as economic activity that is not subject to government regulation, taxation or observation (Schneider 2002) - has become a 'contemporary governance dilemma' in international development (Benson et al. 2014, p.15). Its scale is colossal: more than half the global workforce toils in the informal sector; in some African countries such as Tanzania and Zambia, up to 90 per cent of jobs are unofficial (ILO 2009). The informal economy accounts for up to 38 per cent of the GDP in some sub-Saharan African countries (ibid.), and its dimensions are expanding across the board (Vorley et al. 2012). The informal sector is not peripheral to the formal economy and should thus be examined as a basic component of the total economy (Chen 2007).

Informality is traditionally associated with undesirable development outcomes such as tax evasion, unregulated enterprises, environmental degradation and illegal activities (Benson et al. 2014). Some practitioners and researchers now increasingly view it as a pathway for poverty reduction (Chen 2012). Recent studies have substantiated the connection between informality and vulnerable populations, showing that informal economy participants typically lack legal and social protection (ibid.). The informal sector draws women (Barrientos et al. 2003), youth (Proctor & Lucchesi 2012), and rural communities that rely on natural resources and land for their livelihoods (Scoones 1998; Spiegel 2012).

Rural informality

Rural informality, this paper's focus, is critical to rural development prospects across sub-Saharan Africa. Studies of the informal economy have on the whole pivoted around urban informality. Both Hart (1973) and de Soto (1979), the field's progenitors, conceptualised informality against the backdrop of urban Ghana and Peru. The rural informal economy - economic activities performed by rural populations linked to informal trading and markets - has in contrast received scant attention. Rural informality merits urgent attention from development researchers, practitioners and policymakers for at least five reasons:

First, it provides a critical livelihood option for the rural poor. Most farmers across sub-Saharan Africa rely on informal networks to access their markets. Communities also increasingly diversify their income beyond farming; non-farm work, mostly in the informal sector, now accounts for 40-45 per cent of the average rural household income in the region (Start 2001). As non-farm work is associated with higher income and wealth, informal activities may offer 'a pathway out of poverty' in rural Africa (Barrett et al. 2001, p.2). It also presents employment opportunities to the rural youth among whom unemployment is high and livelihood options scarce (Palmer 2007).

Second, sustainability and environmental degradation are key areas of concern because the rural economy hinges on natural resources such as land, timber and minerals (Scoones 2009). Whereas government has regulatory power over companies in the formal economy (at least in theory), controlling the activities of informal sector enterprises, for instance mercury use in mining and chainsaw use in logging, is a formidable task due to the dispersed and at times clandestine nature of their operations.

Third, communities have long developed informal rules to manage resources; this traditional informality is now increasingly coalescing with regional and global markets. Informality is nothing new to rural populations; they have over centuries developed customary - today considered 'informal' norms and institutions to govern land and resources (Richards 1997; Agrawal & Gibson 1999). A prime example is customary land rights, which predate colonial land titling and allocation. Rural communities engaged in agriculture, forestry or mining, hardly questioned the legitimacy of their activities. But globalisation and economic development increasingly link Africa's remote areas with urban and global markets though better infrastructure, efficient technology, outside investors and demand for cheap products. The increased value of trades also attracts the state and its governing elites to sanction, tax and regulate the economic activities of the countryside. As a result, the traditional informal practices of rural communities now interface with the rules and regulations of urban and global markets. The age-old informality rooted in customary norms now coevolves with formal rules; together they form a resilient rural informal economy parallel to - and interacting with - the formal economy. This has important implications for rural development in sub-Saharan Africa.

Fourth, informal is often lumped together with 'illegal' activities; this requires clarification. In fact, the shades of illegality in informal activities differ across sectors and countries. Whereas the term 'illegality' in the context of smallholder agriculture may chiefly pertain to the non-declaration of taxes and a lack of registration, it may, in the context of informal timber and mining, extend to issues such as no license registration, underreporting, employment without contracts or proper registration, the use of banned inputs of production (e.g.

mercury in gold mining), and the trading of protected species. Even within the same sector, the degree of illegality may vary depending on national legislation. For example, while chainsaw loggers in Ghana are illegal (both their status and operations), their Cameroonian counterparts are legal in their status if licensed, but may under-report sales or trade in protected species. Finally, one may coin the same activity differently according to one's interest. The term 'illegal' may be used to encourage compliance with regulations, which implicitly asserts the legitimacy and appropriateness of the formal rules regardless of the needs and customary practices of rural communities. The term 'informal', in contrast, may be used to intimate the decriminalisation of rural small-scale farmers, loggers and miners who fail to comply with the formal rules due to a number of reasons which are explained later. Therefore it is important not to equate informality with illegality, or generalise the relationship between the two so not to criminalise the rural poor who undertake these activities. Informality is sector-, country- and user- specific.

Fifth, the informal economy faces strong pressures to formalise from businesses, NGOs, donors and policymakers – often without sufficient consideration for rural livelihoods. The mainstream development intervention presupposes that formalising the informal is good for poverty reduction. The following ILO statement (ILO 2011 in Becker 2004) epitomises this:

"The fundamental challenge posed by the informal economy is how to integrate it into the formal economy. It is a matter of equity and social solidarity. Policies must encourage movement away from the informal economy."

This orthodoxy has engendered numerous reforms in land, forest and mineral governance in sub-Saharan Africa in the last three decades. It has also fuelled international initiatives including 'sustainabilising' large corporations' agriculture supply chains, advocating timber legality (e.g. the European Union's Forest Law Enforcement Governance and Trade and Voluntary Partnership Agreements), and promoting conflict-free mineral production (e.g. the Dodd-Frank Act of the US government). However some of these initiatives have not sufficiently accounted for the needs of rural populations

- if not by design, then in their implementation. This has precipitated the exclusion of already-marginalised small-scale producers and operators (Putzel et al. 2014; Vorley 2013; Maconachie & Hilson 2011). Many of these informal actors continue to have limited access to public infrastructure and are frequently pestered by the authorities. Advocates of formalisation policies also ignore the resilience and dynamism of the informal economy in providing low barriers to entry and serving as a buffer against market recessions to these vulnerable populations (Chambwera et al. 2011; Vorley et al. 2012; Webb et al. 2009). Before policy intervention, it is therefore critical to understand the complex dynamics of the rural informal economy, particularly how factors such as customary rights, inadequate regulations and economic benefits may drive informality and affect livelihoods. In order to do this, this paper presents a multi-scale analytical framework in Section 2, which is then used to explore common drivers of informality and livelihood impacts in later sections.

Objective and methodology

This working paper aims to initiate a discussion among researchers and practitioners on the rural informal economy, particularly its drivers and livelihood impacts across the agricultural, timber and mining sectors in sub-Saharan Africa.

The paper focuses in particular on:

- exploring commonalities and differences in drivers and livelihood impacts of informality across the selected sectors;
- testing out an analytical framework to examine rural informality; and
- suggesting next steps for development research on this topic.

This paper relies on the review and synthesis of academic and grey literature across a range of fields, including a conceptual exploration of informality within resource governance, labour economics and rural development, as well as in-depth case studies of informality from each of the three sectors.

2

A framework for analysis

The analytical framework (Figure 1) captures three areas of inquiry and three spatial scales, which are key to understanding the drivers and livelihood impacts of rural informality in the three sectors reviewed here. The key areas are rights, regulation and economics. They are to be examined at three spatial levels: political economy (macro-scale), value chain (meso-scale) and rural actors (micro-scale).

Spatial scales of inquiry

The political economy lens allows for analysis of the macro-level context in which rural informal actors are situated and their informal trading occurs – with a particular focus here on rules (formal and informal), power of rural actors (vis-à-vis ruling elites), and governance of resource access. Value chain analysis helps elucidate the what, who, where and how of informal trading, the agency of rural producers, relationships among actors, and linkages to the formal economy. At this meso-level, the diverse character of informality manifests itself through various activities – economic agents as well as unregistered enterprises (Hussmanns 2004). It is instructive to conceptualise informality's heterogeneity in terms of value chains (see Figure 2).

Finally, rural actor-level analysis helps examine motivations, livelihood choices, and responses to policy interventions of rural participants in the informaleconomy.

Key areas of inquiry

The three topics (rights, regulation and economics) are examined using the three spatial levels outlined above. Table 1 summarises the main findings regarding drivers and livelihood impacts. Note that the listed drivers are interdependent; their complex interplay drives rural informality in the three sectors.

Area 1: Rights

Customary rights and norms are strong drivers of rural informality. Several studies considering the history of norms and property rights in sub-Saharan Africa have confirmed the existence and perpetuation of a pluralistic legal system – one formal system determined by the state, and one informal system created by communities (Benjamin 2008; Meinzen-Dick & Pradhan 2002). Despite numerous legislative reforms, the resource governance system used in rural Africa has not changed from the informal to the formal in a linear manner; rather,

Figure 1: A conceptual framework

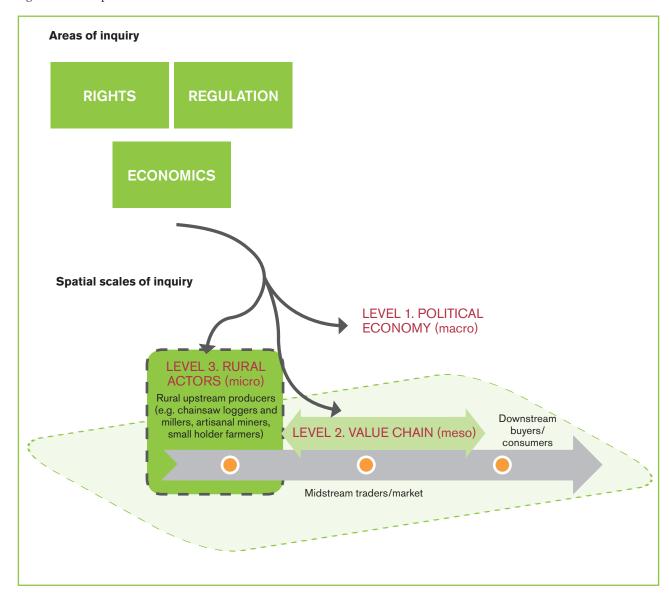


Figure 2: A simple model of an informal value chain



Table 1: Summary of rural informality examined across three areas and scales

	POLITICAL ECONOMY (MACRO-LEVEL)	VALUE CHAIN (MESO-LEVEL)	RURAL ACTORS (MICRO-LEVEL)
Rights	 Customary rights and norms Legitimacy of the state and its institutions 	Social licence and trust among informal actors	 Informal activities seen as legitimate 'Resistance' against the formal rules
Regulation	 Exclusionary laws and regulations Elite capture of resource access Informality perpetuated by government officials 	 Agency of informal actors Informal rules of trade Link with formal value chains Process of legalisation 	 How formal rules may or may not address needs of rural actors Rural actors' responses to policy interventions
Economics	 Global, regional and domestic economic climates Rural employment opportunities 	 Demands from low-income consumers Informal trading more profitable than formal 	 Poverty Income diversification beyond farm work Escaping poverty

the informal and formal have coexisted and co-evolved (Manji 2006).

The surviving – and thriving in some instances – informal institutions and customary rights at the value chain level generate legitimacy and social licenses to operate among rural producers and traders following local customs. This pluralist lens also helps at the rural actors' level to understand why rural populations may question the legitimacy of the state and its institutions in governing 'their' resources. Indeed, informality is most rampant in countries where rural communities suffer from high levels of inequality in income and political participation (De Ferranti et al. 2003; Perry et al. 2006). These countries are often plagued by elite capture exercised by both elites and organised segments of the middle class (ibid.). As Perry et al. (2007) points out:

"State capture leads to the generalised perception that the state is run for the benefit of the few, thus it reinforces a social norm of non-compliance with taxes and regulations, what might be dubbed a 'culture of informality' (p.13)."

As many case studies illustrate in later sections, elite capture of resources has severe repercussions for creating equitable and effective resource governance systems (Putzel *et al.* 2014).

Area 2: Regulation

Regulation is another cause for informality in the rural economy. First, government laws and regulations may exclude certain players from the formal economy due to its registration cost, burdensome bureaucracy and corruption (Chambwera et al. 2011). Micro-firms do not earn enough profit to justify these costs and so take advantage of formal institutions; thus informality becomes a logical response for smallholder farmers, chainsaw loggers and artisanal miners (Perry et al. 2007). Exclusion however also occurs along class and ethnic lines, as the ruling elites capture resource access regimes and systematically marginalise other groups (del Pozo-Vergnes 2013 in Benson et al. 2014).

Informal economic participants – excluded by regulations or not – may yet opt to exit the formal sphere due to the low quality of the services provided by the state and its institutions (Perry et al. 2007), with corruption and harassment from government officials being particularly problematic (Bihunirwa et al. 2012). This exit explanation stands in stark contrast to the exclusion one for it affirms the agency of the informal actors and their preference for the informal sector. Instead of painting small informal businesses and entrepreneurs as powerless and at the mercy

of factors beyond their control, studies increasingly demonstrate that, in spite of the constraints, they may prefer the informal economy where they can formulate their own rules and tailor the market according to their needs (Chambwera et al. 2011). Examining rural actors' perception of laws and regulations reveals how state legislations and institutions may or may not account for their interests and needs. Later sections in this paper show how rural populations may counter formal rules imposed by the government by creating new informal rules.

It is also useful to note that informal businesses and entrepreneurs - whether excluded or exited - may have an active link with the formal economy. Ties between the informal and formal value chains can be strong for certain commodities. Large companies and their traders may source agrifood, timber or mineral products produced informally for domestic or international salesin the process, informal produces become 'legalised' as they feed into formal value chains. In reverse, formal actors such as government officials sometimes actively participate in informal activities through, for instance, demanding informal 'taxation' for timber, food and minerals produced in rural areas.

Area 3: Economics

Above all, the economics simply makes sense for rural communities and many other parties such as lowincome consumers in African cities.

First, poverty (and the ensuing desire to diversify income) drives rural farmers, loggers and miners as well as local communities to partake in the informal economy. Informal activities may be seen as a possible escape route out of poverty (Barrett et al. 2001). Later cases demonstrate that they provide critical safety nets and an alternative livelihood option for the poor. Jobseekers, in particular the rural youth, turn to the informal sector if they cannot find work in the formal labour market (Becker 2004; Palmer 2007). The informal economy, in some sectors, also offers a cushion for employment during global downturns (Chambwera et al. 2011).

Second, low-income consumers' demand for affordable goods also spurs informal production and trading of some products, such as cheap food products and timber. Rural operators and local communities, as illustrated later, frequently capture higher economic benefits from informal activities as opposed to formal ones.

Using the analytical framework, specific cases of drivers and livelihood impacts in these three areas are explored in the following sections.

3 Agriculture

Smallholders represent 80 per cent of all farms in sub-Saharan Africa and produce up to 90 per cent of food products in some countries (Livingston *et al.* 2011). The overwhelming majority of these operate informally. In East Africa, smallholder farming accounts for more than 75 per cent of the total employment and produces 75 per cent of all agricultural output (Bihunirwa *et al.* 2012).

Informal small-scale agriculture in sub-Saharan Africa plays out in three main ways. Rural self-sufficiency farming continues to be widespread (the first type). More and more small-scale farmers, however, are linking up to rural and urban markets (the second type). Three out of four Ugandan farmers, for example, were selling some or all of their produce either in markets or to traders in 2005 (IFAD 2011). Small-scale farmers sell to informal traders, who may then sell to consumers in informal food markets, supermarkets or, in some instances, export companies. When informal produce reaches the export supply chain, has effectively become part of the formal economy's food supply chain and thus 'legalised'. Finally, contracted farmers operating in the formal sector have also been known to engage in informal activities (the third type). They may choose to side-sell some of their produce informally to traders for various reasons outlined below. While some may term their actions illegal, and indeed, side-selling breaches contracts and is banned in some countries, rural farmers might yet view their behaviours as unproblematic and a logical response to the economic pressures they face, ultimately capitalising on both the formal and informal channels of trade available to them.

African governments and international donors alike have by and large considered rural small-scale agricultural production as backward, unsanitary, and the remnants of under-development. They have thus sweated to integrate small-scale farmers into modern supply chains (Vorley 2013). Some gainsay this formalisation prescription, arguing that informal trade should not simply be seen as a market failure, but rather as an effective and functional link between rural farmers and the market (Staal et al. 2006)

The drivers of informality in small-scale agriculture – and how they relate to rural livelihoods – are explored below, using the analytical framework presented in Section 2. Table 2 presents the key findings.

Rights

The issue of informality in agriculture pivots around customary land ownership. Indeed, some consider smallholder agriculture legitimate because of traditional customary claims on land (FAO n.d.a). For rural communities, informality is therefore the norm; governments, in contrast, see it as an illegitimate or inferior arrangement requiring policy interventions. All this has engendered the pluralistic system of rights (i.e., co-existence of informal and formal rules), described in Section 2. Some land tenure reforms have actually attempted to integrate customary rules and ownership into legislative frameworks, yet implementation has been problematic (Pacheco et al. 2008; Fitzpatrick 2005). In particular, the titling and land allocation progresses have antagonised rural communities in some countries, who responded by rejecting the new rules and reverting back to informal norms that they consider legitimate (Pacheco et al. 2008).

Table 2: Summary of findings in agriculture

POLITICAL ECONOMY	VALUE CHAIN	RURAL ACTORS
Customary land tenure Co-existence of customary rules and formal rules	Strong social trust among producers and traders, which enables the creation of informal institutions (the case of Matooke producers in Uganda)	 Informal activities equally or more legitimate form of operation than formal production Unjust regulations and laws imposed by the state without consultation 'Resistance' in the form of deliberate negligence against unjust formal rules
Global supply chain initiatives: upgrade to higher value chains as the motto but do not focus on markets of the poor	 Conforming with formal rules – particularly collective organisation and registration –challenges traditional social hierarchy 	 Policy reforms need to support informal actors' interests (key to success as in the case of Kenya's dairy reform)
	 Farmers increasingly have one foot in informal and another in formal 	
	Farmers resilient and strong agency in the informal economy	
	The gender angle often neglected in cooperatives and producers' associations	
Low global commodity prices affect farmers negatively, which encourages side-selling	 Demands from urban low- income consumers Informal trading more profitable for farmers than formal markets 	PovertyA lack of alternative livelihood options
	 Informal traders offer various advantages 	
	Customary land tenure Co-existence of customary rules and formal rules Global supply chain initiatives: upgrade to higher value chains as the motto but do not focus on markets of the poor Low global commodity prices affect farmers negatively, which	Customary land tenure Co-existence of customary rules and formal rules Global supply chain initiatives: upgrade to higher value chains as the motto but do not focus on markets of the poor Cambridge of the poor Conforming with formal rules – particularly collective organisation and registration – challenges traditional social hierarchy Farmers increasingly have one foot in informal and another in formal Farmers resilient and strong agency in the informal economy The gender angle often neglected in cooperatives and producers' associations Low global commodity prices affect farmers negatively, which encourages side-selling Informal trading more profitable for farmers than formal markets Informal traders offer various

Informal norms generate trust and social license to operate among informal producers and traders. Trust obtained from social capital effectively acts as a control mechanism in the informal market (Benson et al. 2014; Bihunirwa et al. 2012). In the case of Ugandan matooke (cooking bananas), for example, a complex collective organisation system forms each harvest season. Producers and sellers synchronise prices, volumes sold, and locations of informal trading centres through their social relations (Bihunirwa et al. 2012).

For rural farmers cultivating their customary lands, informal farming (e.g. without permits or tax declarations) is at least equally, if not more, legitimate than state-sanctioned production; formality in this regard is best considered as 'another way of income

diversification' rather than the principal mode of operation to which the farmers need to subscribe (Vorley et al. 2012). In cases where land reform, titling and allocation were seen as unjust and lacking local consultation in Ghana, studies have observed that farmers may actively ignore the new rules - a form of resistance against formality imposed by the state (Blocher 2006; Kasanga & Kotey 2001).

Regulation

Smallholders are generally able to create and shape market rules in the informal economy, making them resilient and autonomous economic actors (Vorley et al. 2012). But they may struggle when having to

organise for selling in the formal markets as required by regulations. Indeed, collective organisation - most commonly in the form of producers' associations or cooperatives - poses significant challenges to the social structure and power relationships traditionally practiced among communities (Leahy & Goforth 2014). Studies also show that rural unions and cooperatives often inadequately represent the interests of women, who make up a significant portion of rural farmers (see e.g. Barrientos et al. 2003). Effective regulations must also be designed to support the interests of informal actors. Rather than penalising incompliance, Kenya's dairy reform measures actively supported some 800,000 informal milk vendors, providing incentives for registration (Kaitibie et al. 2010). African governments intent on formalising smallholder agriculture would need to take these issues into account in their policy design.

Global initiatives designed to encourage small producers to upgrade to high-value supply chains may also affect rural livelihoods (Vorley 2013). Many of these initiatives work with multinational companies to integrate small-scale producers into their value chains (e.g., Unilever's fair and sustainable supply chain initiative). Schemes tend to work with better organised and capitalised producers, however, and not with the poorest of the poor who operate in the informal economy (Vorley & Thorpe 2014). Another line of criticism contends that the emphasis on linking small-scale farmers to export markets is only after making 'markets for the poor', diverting attention from supporting 'markets of the poor', i.e. the domestic informal agrifood markets where most small farmers make their living (Murphy 2012).

This does not mean, however, that the informal and the formal do not mix. At the value chain level, some agriproducts link informal smallholders to the formal economy. Many 'modern' agriproduct value chains in sub-Saharan Africa often start with informal transactions upstream – farmers selling to local traders – with formal arrangements only introduced later in the supply chain (Vorley et al. 2012). It is common for rural traders to have 'one foot in informal trading relationships and

the other in formal institutions' (Bihunirwa et al. 2012, p.2). Side-selling of cotton by smallholders in Malawi and Zimbabwe is widespread, for example, in spite of contractual obligations (Minot 2011). Pervasive side-selling typifies the blend of informal-formal trading strategies employed by smallholders. Farmers are continuously assessing the benefits and costs of informal and formal operations – and possibly a combination of the two – to make 'markets work in their favour' (Bihunirwa et al. 2012).

Economics

Economic forces are a strong driver of informality in smallholder agriculture. When low global agricultural commodity prices diminish rural farmers' earnings, contract farmers may be forced to find alternative sources of income and may engage in side-selling (Minot 2011). A key reason for why rural farmers engage in informal as opposed to formal trading is the higher profit margin. Side-selling not only puts more money into the rural farmers' pockets (as informal traders offer better prices), but it also allows them to overcome constraints such as high levels of repayment and the lack of information on purchase prices until the harvest (Minot 2011; FAO n.d.b). In addition, as illustrated by the oilseeds trade in Uganda, informal traders promise timely cash transactions, no transport costs, less strict quality controls, and room for negotiation (Vorley et al. 2015).

The growing numbers of low-income consumers in African cities, who demand cheap food products, has also undergirded informality in rural agriculture. Informal agrifood markets have become the place where poor producers and consumers' interests meet (Benson et al. 2014). In Kenyan cities, for example, informal milk trading has been commonplace in recent years despite the government's efforts to clamp down. The government was unsuccessful in keeping small-scale milk vendors out of the cities because of 'overwhelming consumer demands' (Hooton & Omore 2008, p.7).

Timber

Across the forest-rich African countries in the Congo Basin rainforests and the miombo woodlands, informal timber production¹ using chainsaws is an important livelihood choice for the rural poor. Chainsaw logging and milling - defined as the on-site conversion of logs into lumber for commercial purposes using chainsaws - carried out in an informal manner may refer to logging, milling and trading without licenses, or harvesting more than permitted by law (Wit et al. 2010). The legal status of informal loggers and millers varies. Some countries grant them licences for small-scale harvest volumes (e.g. Cameroon), whereas others, such as Ghana, ban their activities entirely (Hansen et al. 2012; Cerutti and Lescuyer 2011). Government officials, donors and environmental activists have for the most part criminalised small-scale chainsaw operators. 'Illegal loggers', they advocate, should face stricter law enforcement and punishments for their informal trading (see e.g. UNEP 2012; Environmental Investigation Agency 2012).

What escapes their thinking, however, is the staggering scale of informal timber production in the region and its de facto dominance as the sole supplier for the domestic market. Figure 3 illustrates that informal production surpassed its formal counterpart in DRC and Cameroon and rivalled that of the Republic of the Congo. While industrial formal logging almost exclusively serves the export market, most domestic demand for timber in the region is met by rural chainsaw loggers and millers who receive strong support from low-income consumers, local communities and some government officials (Lescuyer & Cerutti 2013; Mafro 2010).

The legalistic approach turns a blind eye to the importance of the informal sector to rural livelihoods (Cerutti et al. 2013; Mafro 2010). Below, using the analytical framework, we explore why and how rural indigents participate in the informal economy, and the benefits they receive to make ends meet. Table 3 presents the key findings.

Rights

Customary norms and rights, just as in agriculture, play a central role in driving informality in chainsaw logging and milling.

Forest-dependent communities across sub-Saharan Africa have long managed their forest resources using traditional norms and rights. Governments started to usurp rural communities during the colonial era by setting up industrial logging operations for timber export to Europe. Today's governments continue to hold sway over forest resources (Larson et al. 2010). The creation of forest laws, some argue, redefined which rules were legal and which were not - in some instances, it was those customary practices that were non-conforming to the state's interest that were made illegal (Peluso & Vandergeest 2001). Customary norms, however, still persist in rural Africa; most sub-Saharan forest-rich regions today are governed by a complex interplay and co-existence of informal (customary) and formal rules.

Forests ownership rights, in contrast to land rights, remain predominantly in the hands of the state across sub-Saharan Africa (Lawry et al. 2012). Whereas customary land titles are often recognised in legal

¹ Note that the informal timber production described in this section focuses on chainsaw milling by small-scale rural operators; it should be differentiated from industrial-level production by large companies that commit illegal activities (e.g. a lack of licence, incompliance with management plans, etc.).

Figure 3: Informal timber production share in Central Africa

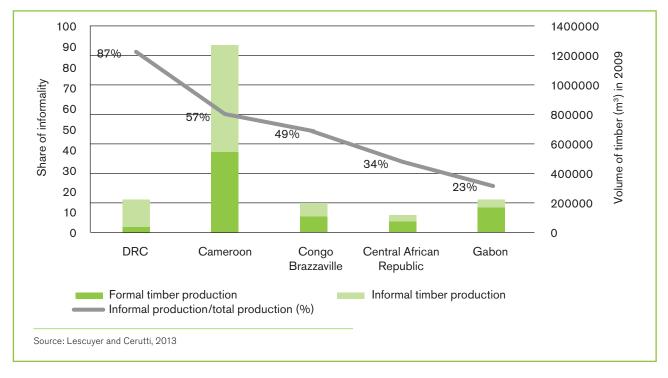


Table 3: Summary of findings for informal logging

TIMBER	POLITICAL ECONOMY	VALUE CHAIN	RURAL ACTORS
Rights	Forest tenure conflicts between the state and rural communities		Informal activities as 'resistance' against unjust tenure arrangements imposed by the state
	 Forest ownership belong to the state 		imposed by the state
Regulation	Elite capture of forest resource governance	Separation between the informal and formal timber sectors – except for	Cost of compliance with regulations and policy too high for rural actors
sharing and community forestry often do not deliver	selected species for export that provide significant economic profits	g 10. 10. 0. 0. 0	
• Huge economic benefits to a wide range of stakeholders (forest department officials, police, customs, farmers and chiefs)	Demands from the growing low-income consumers in	One of the few employment opportunities for youth	
	•	urban areas	 A critical livelihood option
	•	Government officials participate actively	Significant income compared to farm work

frameworks, rural communities can only receive access, use, or in some cases management rights to forest resources. In reality, governments routinely allocate wasteland or degraded forests to rural communities, while reserving high-value timber resources suitable for commercial exploitation for the industry (Bojang 2013). This practice allows governments to generate significant income from forest resources and benefits the ruling elites (Jones 2004 in Bojang 2013).

Some rural chainsaw loggers and millers may respond to tenure arrangements imposed by the state by intensifying their informal activities. In an interview with the author, a Cameroonian chainsaw logger commented, "the government could take away our land and trees any moment, so we'd rather sell all the trees away to the Chinese as soon as we can" (Weng 2015, p.2).

Regulation

Exclusionary regulations and elite-captured formal systems fail to deliver the promised benefits to forestdependent communities across Africa (Lawry et al. 2012), therefore perpetuating informal logging. Policies such as revenue sharing schemes or community forestry commonly fall short of their promises to help communities. Royalty from revenue-sharing schemes rarely reached the hands of community members in Cameroon (Morrison et al. 2009), and were appropriated by local elites for personal gains in Ghana (Chapter 5 in Larson et al. 2010). Community forestry on the other hand has complicated requirements for approval. As a result, deft local and at times external elites easily appropriate community forestry permits (ibid.). Community forestry's new management structure, which requires formally organised user groups, also poses challenges to the communities' pre-existing rules and institutions. And even if all hurdles are taken, permits for community forestry are yet often unaffordable for smallholder farmers and communities (Pacheco et al. 2008).

The high cost of compliance is also a problem of international initiatives, such as EU's FLEGT-VPA that promotes timber legality. Research has put a price tag of US\$14.17 per hectare to comply with FLEGT's various requirements - too much for most local producers (Eba'a Atyi et al. 2013). Forest-dependent communities who are unable to benefit from their surrounding forest resources through formal channels have little choice but to support their livelihoods through chainsaw logging and milling.

The link between informal and formal supply chains in the timber sector is comparatively weak. The main reason is that the export and domestic markets are distinct: formal industrial operations serve the export market, which demands stringent product specifications (Cerutti and Lescuyer 2011). Chainsaw millers serve the lax domestic market dominated by low-income consumers. There are nonetheless instances when the informal and formal value chains overlap: exportoriented buyers may purchase logs or sawn timber of high-value species from rural chainsaw millers and/ or in the informal timber markets. Informally harvested timber products become legalised in the export process (Weng et al. 2014). Chinese buyers' scramble for rosewood species in many African countries is a prime example of this. Despite sustainability concerns, such informal trade at times brings substantial economic profits to rural communities usually excluded from the lucrative global timber business (ibid.; Asanzi et al. 2014).

Economics

Informal timber production using chainsaws brings significant economic benefits to a wide range of stakeholders. Demand from low-income consumers, as in the case of agriculture, is a key driver. In the domestic markets of Central African countries and Ghana, chainsaw milling thrives despite the ban and restrictions, because it receives a wide level of public support (Mafro 2010). For example in Ghana, informal payments from chainsaw milling amounted to 33.6 billion Ghana cedi (approx.US\$8.8 billion), which benefited government officials, farmers and chiefs (Mafro 2010). Indeed, the authorities (police, forestry and customs officials) have partially created the rules in the informal sector so that they can 'tax' chainsaw timber production by demanding bribes (Mafro 2010; Cerutti et al. 2013). Such behaviours are particularly common among increasingly disillusioned officials at the local level (Cerutti et al. 2013).

Informal timber's contribution to rural livelihoods cannot be overstated. In Ghana, it provides jobs for about 130,000 people and supports the lives of about 650,000 people (Mafro 2010). It is also one of the few viable employment options for the rural youth (*ibid.*). In Cameroon, rural populations identify chainsaw milling as a key source of income generation (Cerutti and Lescuyer 2011). Research in rural Cameroon also reveals that farmers often engage in logging and milling as an alternative or a supplement to their farm work (Weng et al. 2014; Lescuyer 2010 in Cerutti and Lescuyer 2011).

5 Mining

Some communities in the rural informal economy rely on artisanal and small-scale mining (ASM) as a vital livelihood strategy. Artisanal miners use rudimentary tools such as shovels and machetes, whereas smallscale mining companies own heavy-duty machines such as bulldozers and trucks. There are more than 30 million ASM miners worldwide, excavating various minerals and gemstones including gold, diamond, the 3Ts (tin, tantalum, tungsten), bauxite and iron ore (Hentschel et al. 2002). ASM presents huge employment opportunities; it is estimated to support more than 10 times as many people than those directly employed in large-scale mining (Buxton 2013). In gold mining, which has received most attention, ASM accounts for 90 per cent of the global employment (Hruschka n.d.). Although ASM is critical to rural livelihoods as explained below, its environmental impacts (e.g. mercury use in alluvial gold mining) are troublesome. Moreover, it has been linked to armed groups and conflict minerals in countries such as Sierra Leone, Angola and the DRC (Fisher 2007).

While regulations of ASM vary from country to country (thereby its corresponding legal status), artisanal miners and small mining companies in all countries mostly operate in the informal sphere. Their informality manifests in various forms, including; i) they operate outside the legal framework in countries which lack targeted regulations; ii) they operate without the permits required by law; and/or iii) they may underreport production volumes to evade taxes (Benson *et al.* 2014). In this section, the analytical framework outlined in Section 2 is used to analyse the drivers and livelihoods impacts of ASM activities in the informal sector. Table 4 summaries the key findings.

Rights

Conflicting customary and formal rules, particularly the separation of mining rights from land ownership rights, drive informality in ASM. There are two distinct 'spheres of rights' across sub-Saharan Africa. On the one hand, governments separate mining rights from landownership rights; their post-colonial mining reforms stipulate that mining rights belong to the state regardless of who owns the land. On the other hand, chiefs and landowners have traditionally been responsible for granting mining rights to subsistence artisanal miners (Nyame & Blocher 2010), leasing land to artisanal miners through verbal and simple agreements (Verbrugge et al. 2015; ibid.). The concomitant exercise of authority of both governments and local communities has effectively given rise to the co-existing yet clashing formal and informal licensing of mining rights.

For rural communities, the distinction between landownership and mining rights is inconsequential, thus formal rules matter little to them. Members of rural communities see little difference between leasing their land to miners or other tenant farmers, willingly engaging in informal negotiations with whoever wants to mine on their land including outside financiers (*ibid.*). When landowners are actually aware of the official rules, they may still choose to ignore them. They do so to 'resist' against what they perceive to be unjust arrangements imposed by the state that do not account for their interests (Nyame & Blocher 2010). They are also bothered that governments frequently allocate their customary land to large companies for industrial production without consultation and compensation (ibid.); this is similar in both agriculture and timber as described earlier.

Table 4: Summary of findings for ASM in the informal sector

TIMBER	POLITICAL ECONOMY	VALUE CHAIN	RURAL ACTORS
Rights	Landowning communities and individuals may grant mining rights according to customary (informal) norms	 Landowners lease land to artisanal miners through verbal and simple agreements 	Landowners consider leasing land for ASM as legitimate as leasing land for farming
	Only the state can grant mining rights according to (formal) legislation		'Resistance' against unjust land allocation to large mining companies by the
informal 'lice former by the	 Co-existence of formal and informal 'licensing' (the former by the state and the latter by rural landowners) 		government
mining companies and	exclude interests of the ASM	LSM may displace subsistence artisanal gold miners	 Stakeholder consultations in policy design the key to success in policy reform (the
	 Policy intervention pays little attention to gender 	case of Peru)	
• Global recessions induce temporary ASM activities among rural populations	Three types of ASM workers all driven by rural poverty	Significant source of income compared to farming	
	among rural populations	 Not all ASM actors are subsistence miners, also well-capitalised 'rent seekers' 	Lack of alternative livelihood options

Regulation

The exclusionary nature of regulations is also a strong driver of informality in ASM. Even those rural communities and small-scale miners willing to comply with the regulations may be deterred by the complex and burdensome bureaucratic procedures necessary for compliance (Hilson & Potter 2005; Banchirigah & Hilson 2009). Another reason for informality's ubiquity is that mining laws are drafted mainly to suit the interests of large companies (Hentschel et al. 2002; Blocher 2006).

Many countries have attempted reforms for integrating artisanal miners and small mining companies into the formal economy. These reforms have had limited success for they tended to ignore the elephant in the room: the unequal power relationship between rural communities and the elites as well as large companies (Spiegel 2012; Benson et al. 2014; Fisher 2007). One example is when multinational companies displace artisanal miners (who may have 'informal' claims) by obtaining exploration and prospecting licenses using their fast-lane access to the bureaucracy (Hilson & Potter 2005; Dreschler 2001 in Fisher 2007).

Finally, a lack of stakeholder consultation in policy designs causes informality to persist. Many sub-Saharan governments could learn from Peru's successful reform, for which the government consulted with ASM miners in the drafting stage of its new regulatory framework. To date, 50 per cent of miners have become formalised and 26 cooperatives formed in the ongoing formalisation process (Benson et al. 2014).

Economics

Financial lures are the main reason why businesses. miners and local communities engage in ASM. ASM guarantees high profits and thus provides a reliable livelihood option in remote areas. Table 5 illustrates three types of miners and their income level in relation to other economic activities. Note that the first two types (permanent and seasonal) possibly generate a higher income than farm work, whereas the shock-push ASM serves as a safety net in tough times. Poverty, however, is the underlying motivation for rural actors' participation, regardless of type.

Various factors may contribute to rural poverty, including land tenure insecurity, de-agrarianisation, global recession, and, in some countries, armed conflicts (Verbrugge 2014; Hentschel *et al.* 2002). Farmers hoping to diversify their income, in particular, look for ASM jobs where available. As Table 5 shows, seasonal ASM workers could be classified as both 'mining farmers' and 'farming miners' (Maconachie &

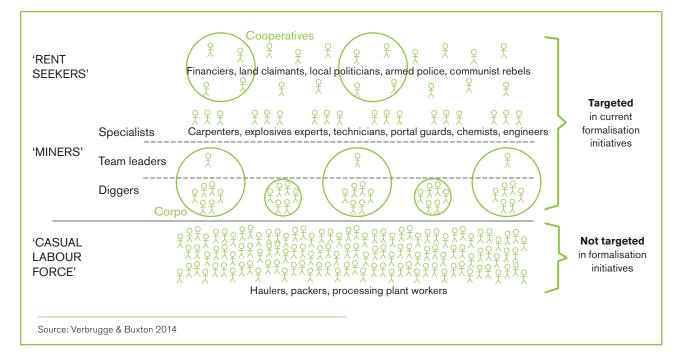
Binns 2007; Verbrugge *et al.* 2015). It is not only the poorest of the poor who participate in ASM, however. Figure 4 below shows that it may include a cohort of 'rent seekers' who are professional and well-capitalised financers (Verbrugge & Buxton 2014). Research and policy discussions need to take these complex structures into account when deliberating on the livelihood impacts of ASM.

Table 5: Three types of ASM and their estimated income levels vis-à-vis other local livelihood choices

TYPE OF ASM	DESCRIPTION	ESTIMATED RATIO OF ASM INCOME VIS- À-VIS OTHER LOCAL LIVELIHOOD CHOICES
Permanent ASM	Generally earn higher income than alternative occupations	1.5–5
Seasonal ASM	Consider ASM as an opportunity for additional income during idle periods of other work (e.g. farm work). Similar or slightly higher income than alternative occupations	0.8–1.5
Shock-push ASM	People pushed into ASM as a response to disasters or economic shocks. Lower income than previous livelihood option, but best available option as a buffer	0.5-0.9

Source: adapted from Hruschka n.d.

Figure 4: The complex and multi-tiered labour structure in the Philippines' ASM sector 2



 $^{^{2}}$ Although the example is from the Philippines, we can assume a similar structure for ASM in sub-Saharan Africa.

Conclusion

Informality is widespread and on the rise across sub-Saharan Africa. The *rural* informal economy, in particular, has tremendous implications for livelihoods of indigent communities. This paper has illustrated that rural informality is not to be simply equated with illegality; policymakers, researchers and practitioners should acknowledge its ubiquity and attend to its complexity in their policy design. Any development intervention aiming to help the rural poor ultimately needs to be grounded in the reality of the rural informal economy.

Concretely, this report has found:

- · Customary rights and norms legitimate informality in the eyes of rural communities. Farmers, loggers and miners consider their informal trading rightful due to traditional practices even when it knowingly contradicts existing legislation. Particularly in the context of rural farming, what governments call 'informality' is how things have always been done; anything pertaining to the 'legal' sphere is something smallholders may or may not choose to follow. In rural informal logging and mining, customary rules co-exist and co-evolve together with formal rules, engendering a complex system of resource access and governance on the ground.
- Regulations when exclusionary or poorly implemented - drive informality. Byzantine bureaucracy, pervasive corruption and steep compliance costs deter farmers, loggers and miners from registering and complying with formal rules. Timber and mining laws have long served the interests of large companies and still rarely take into consideration the needs of rural operators. Rural farmers often breach contracts and engage in informal trading if the terms of formal agreements seem unfair or too costly for them.

- Informal trading is a critical source of income for rural communities. Poverty and scant employment opportunities prod rural populations (especially the youth) into the informal sector. Informal logging and mining are highly profitable income diversification strategies beyond farm work.
- An important commonality across the three sectors is the concomitance of complex informal rules, participation of government officials and informality practiced as a form of resistance against unjust legislation. Few policy interventions which succeed in integrating informal actors into the formal sector are another evident similarity.
- One key difference is that whereas domestic consumers drive the demand for cheap informal food and timber products, international demand seems to spur informal mining of gold and other precious metals. A second difference relates to ownership rights: legislation across sub-Saharan typically recognises customary land ownership, but does not grant minerals or forest ownership to communities and customary landowners. Finally, illegality in informal logging and mining is more pronounced than in agriculture, because governments across the region exercise tight control over their prized natural resources.

The framework used in this paper has allowed for a first comparison of common and different drivers of informality and the livelihood implications across the sectors of agriculture, timber and mining. Future research should further explore the dynamics and complexity of the informal system in and across the three sectors, in particular paying attention to varying spatial scales. Key research questions may include:

At the political economy level:

- What are the prevailing legal and customary norms of resource and land governance?
- How have they clashed, co-existed and co-evolved historically?
- What is the level of barriers to entry for small firms, elite capture in decision making, quality of services provided as well as corruption in existing regulations?

At the value chain level:

- Where and how do rural economic actors participate in the informal economy?
- What are their economic return and relationship with other actors?
- How do they shape the rules of the informal trade?

At the rural actor level:

- What are the motivations for participating in the informal economy?
- What are the livelihoods benefits compared to other economic activities?

One issue beyond the scope of this paper – which has focused on drivers and livelihood implications – is environmental impacts of informality. Deforestation and mercury pollution, in particular, are serious concerns. Efforts to mitigate these environmental impacts through global and domestic sustainability-related regulations and initiatives in turn have direct impacts on livelihoods (e.g. EU FLEGT-VPA and the Minamata Convention on Mercury). It is also important to compare the environmental impact of informality vis-à-vis formal operations (industrial logging vs chainsaw logging and large-scale mining vs artisanal and small-scale mining) so that policymakers can weigh the costs and benefits between livelihood implications and environmental consequences.

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The informal economy – broadly defined as economic activity that is not subject to government regulation or taxation – supports some of the most vulnerable in society. In sub-Saharan Africa, it generates 90 per cent of employment opportunities in some countries, and contributes up to 38 per cent of GDP in others.

In rural areas, the informal economy sustains livelihoods of impoverished populations through natural resource and land based economic activities such as farming, logging and mining. The rural informal economy is messy and complex: activities are at times classified as illegal yet are often rooted in traditional resource and land rights. Local communities may receive significant income, but sustainability of resource use is a pressing concern as informal trade increasingly serves everexpanding urban and international markets.

This paper examines the drivers and livelihood implications of informality in agriculture, logging, and mining in sub-Saharan Africa. It finds commonalities and differences across three areas: rights, regulations and economic factors. Aimed at researchers and practitioners, the paper demonstrates that development interventions in resource governance need to be strongly grounded in the complex reality of the rural informal economy in order to benefit impoverished communities.

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