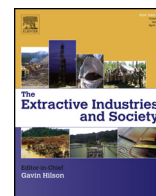


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Original article

## Rentier nation: Landlordism, patronage and power in Guyana's gold mining sector

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## ABSTRACT

The consequences are examined of the revision of Guyana's Mining Act in 1989 that was intended to allow access to international mining companies while safeguarding national interests. One outcome was the acquisition of over 75% of small-scale and over 40% of medium-scale concessions by a small number of nationals. Landlordism expanded following the spike in the international gold price from 2006. The State's failure to modify the poorly construed mining law, and to enforce the Regulations, enables the continued capture of the excess rent from gold sales by rentiers without commensurate responsibility for them to remedy the environmental degradation. Evidence of financial losses to the State from the renting of concessions and the smuggling of gold is presented. The legal protections of Indigenous Peoples are not enforced. The legal protections of mining workers are inadequate. We recommend: making the mining licence holder legally responsible for ensuring compliance with all Regulations on every concession; the implementation of Free, Prior and Informed Consent (FPIC) to safeguard Indigenous rights in both titled and customary territories; the capture of excess rent from gold sales for a sovereign wealth fund; and full transparency so as to end insider trading in concessions.

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### 1. Introduction

This article examines two inter-related themes in Guyana's gold mining sector: the consequences that follow from concentrated holdings and 'landlordism' of State property and from the State's weak administration of the sector. We suggest that one explanation for the minimal uptake of recommendations for sectoral reform contained in the reports of consultants and others is directly related to regulatory capture (Dal Bó, 2006).<sup>1</sup> This review of tenure arrangements in the gold mining sector complements our research into rentier practices in the forestry sector and the concentration into the hands of a few loggers of both logging concessions and the log trade (Bulkan, 2014a; Bulkan and Palmer, 2008; Palmer and Bulkan, 2010).

This article draws on the data contained in a Management and Systems Review of the Guyana Geology and Mines Commission (GGMC) commissioned by Guyana's Ministry of Natural Resources

and the Environment (MNRE) in 2014 and led by Grantley Walrond, a former GGMC Commissioner (Walrond et al., 2015). The Review was leaked to the Press which highlighted some of its findings (Stabroek News, 2015, 7 April). The disclosures led to a full-page ad hominem attack on the consultants by the GGMC in the form of a paid advertisement (Kaieteur News, 2015, 10 April). However, none of the Review's findings was refuted then or later. We examine briefly some of the social and economic consequences of the high-level crony corruption and lay out some policy prescriptions for sectoral reform.

This article is organized as follows. Section 2 contains a general overview of the geopolitical and institutional context of Guyana's public lands, including the legal safeguards for the rights of Indigenous Peoples. In Section 3 we briefly review recent literature on mining issues. In Section 4, we summarize mining administration, law and policy, including the main criteria for eligibility for large-, medium- and small-scale concessions. In Section 5 we assess the requirements for obtaining and retaining concessions in law and in practice. Section 6 tracks the growth in number and area of concession licences over time and Section 7 assesses the evidence relating to concession administration. Section 8 considers some of the charges of corruption levelled at concession procedures and practices. In Section 9, we discuss the evidence of landlordism and State support of or acquiescence in the *status quo*.

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E-mail addresses: [janette.bulkan@ubc.ca](mailto:janette.bulkan@ubc.ca) (J. Bulkan), [jrpalmer2005@waitrose.com](mailto:jrpalmer2005@waitrose.com) (J. Palmer).<sup>1</sup> Regulatory capture occurs when a government regulatory agency which is supposed to be acting in the public interest becomes dominated by the vested interests of the existing incumbents in the industry that it oversees.

In Section 10 we examine the data in the public domain pertaining to gold exports, internal declarations and the contribution of gold mining to GDP during 1990–2014. In Section 11 we present and discuss three examples of financial losses to the State from the illegalities in the sector. Section 12 concludes with policy recommendations for reform.

## 2. General overview of Guyana's geopolitical and institutional context

Gold and diamond mining are carried out in Guyana's hinterland that comprises 95 per cent of its land area (GLSC, 2013, p. 21). Over 80 per cent of the country's land area are public lands administered by the State and divided into three categories: State Forests (60 per cent), State Lands (23 per cent) and Protected Areas (5 per cent), each administered by a semi-autonomous commission (Guyana Forestry Commission and INDUFOR, 2013, p. 5). A Ministry of Natural Resources and the Environment (MNRE) was created in 2012 to oversee the five natural resources commissions (Environmental Protection Agency (EPA), Guyana Forestry Commission (GFC), Guyana Geology and Mines Commission (GGMC), Guyana Lands and Surveys Commission (GLSC) and the Protected Areas Commission). The commissions combine regulatory and law-enforcement functions; each has the authority to receive area fees and in the case of the Forestry and Mining Commissions, to receive royalties and to levy penalties. Six Mining Districts are overlaid on State Forests (and some State Lands) and administered by the GGMC.

Mineral exploration and mining concessions overlap with State Forest Exploratory Permits and logging concessions issued by the GFC on public lands. On paper the State's territorial monopoly suggests that integrated land use planning (ILUP) to rationalize spatial and temporal allocations to natural resources extraction would be feasible *via* inter-agency collaboration. In practice, however, ILUP was consistently ignored in favour of Ministerial and Cabinet discretionary practices. An itemization of the wide discretionary powers accorded to the Minister in the *Mining Act* (cap. 65:01 of 1989) covers 15 pages of Walrond et al.'s report (2015, Appendix A, p. 1–16).

In the aftermath of the first free-and-fair national elections in 1992 there were a number of donor-funded projects aimed at operationalizing ILUP. One notable project was the 'Guyana Integrated Natural Resources Information Service' (GINRIS) project, set up with German government funding in 1994 for Geographical Information Systems (GIS) equipment and training of staff of the land commissions with the intention to implement the national policy favouring ILUP. A second project was the Carter Center-funded National Development Strategy (NDS), whose chapter on Mining remains relevant in 2016 (Government of Guyana, 1996a,b, 2000). The ruling Peoples Progressive Party (PPP, 1992–2015) disregarded both GINRIS and the NDS. The former was dismantled when German aid ended after a pilot ILUP exercise was tested successfully in (administrative) Region 10 in 1997.

After its formation in 2012, the Ministry of Natural Resources and the Environment (MNRE) commissioned an external consultancy firm to draft its Strategic Plan (Strategic Environmental Advice, 2013). In tandem, a second consulting firm, HTSPE, developed a new version of a national land use plan (GLSC, 2013). However up to the time a new government was declared in May 2015, two years later, no action was taken to revive a national ILUP process to rationalize overlapping land uses on public lands. Consequently the natural resources Commissions continued to issue separate concessions on the same land area, using separate GIS systems software and with little coordination at headquarters or in the field.

Mining is regulated under the *Mining Act* that was revised in 1989 in a period of IMF-supervised reform of a failing State-controlled public sector. In his assessment of the 'processes of enclosure' that sought to link the Guyanese belowground resources to international investment capital and metropolitan centres of gold mining, Gavin Bridge noted the global trend towards expansion of mining access without a commensurate increase in State regulation:

'In the ten year period beginning in 1985, over ninety states adopted new mining laws or revised existing legal codes in an effort to promote foreign investment in their mining sector. The promulgation of new Mining Codes was frequently part of a broader package of neoliberal administrative and legal reforms. Their combined effect was to open up new opportunities for the international mining industry in areas that were formerly either closed *de jure* because of political restrictions, or closed *de facto* since political-economic risk was sufficiently high to deter prudent investment' (2007, p. 75).

The mineral-rich areas are coincident with the customary lands of Guyana's Indigenous Peoples, referred to as 'Amerindians' since at least the Crown Land Ordinances and Regulations from 1861.<sup>2</sup> Amerindians number around 80,000 and are the majority populations of the hinterland. 97 of the approximately 138 Amerindian communities hold communal legal title only to aboveground resources on 14 per cent of national territory through the *Amerindian Acts* of 1976 and 2006. The legal and equitable adequacies of the land titling and demarcation processes for Amerindians are frequently disputed (Dooley and Griffiths, 2014; APA, 2015). For example, Amerindian property rights are burdened by the State's reservation of the right to issue mining concessions on 'any part of Village lands; any land contiguous with Village lands; or any rivers, creeks or waterways which pass through Village land or any lands contiguous with Village lands' (Section 53 (a–c)) provided that 'the Guyana Geology and Mines Commission shall first (i) notify the Village and (ii) satisfy itself that the impact of mining on the Village will not be harmful' (*Amerindian Act* 2006, Section 53(i–ii)).

Gold mining on communally titled Amerindian Village Land (AVL) is regulated under Sections 48–53 of the *Amerindian Act* 2006. Any small or medium scale mining activities require 'good faith' negotiations with the Village Council (Section 48(1)(e)), and 'the consent of at least two-thirds of those present and entitled to vote at a Village general meeting' (Section 48(1)(g)). If a mining agreement is reached, 'the miner, his employees and agents shall comply with the rules made by the Village Council' (Sections 14(1) and 49(2)(e)). Thus, although the GGMC can issue mining concessions over titled AVLS, a Village can veto small- and medium-scale concessions (Section 48). No such veto is allowed to owners of other private property through Section 7 of the *Mining Act* 1989. In practice, mining takes place in and around AVLS and untitled communities, with or without the consent and participation of the Amerindians themselves (Bulkan, 2014b; Bulkan, in Press). GINRIS exercises in the 1990s showed that a majority of State Forests, State Lands and proposed Protected Areas overlapped with the claimed customary lands of Indigenous Peoples (confirmed by the former GTZ project manager, pers comm 2006; Colchester et al., 2002; map on page 105). A program of Amerindian Community Mine Rangers was instituted as part of the GGMC's field monitoring. Walrond et al. reported that there were

<sup>2</sup> The terms 'African', 'Amerindian', 'East Indian', and 'Mixed' are both the legal terms used in the decennial censuses and the self-ascriptions with widest social acceptance. In the main the nine surviving Indigenous Peoples of Guyana use the same term 'Amerindian' to describe their generic ethnic grouping.

11 Rangers in total and who alleged that their recommendations for action were ignored by the GGMC (2015, p. 44).

The Mining Regulations associated with the Mining Acts since 1931 were concerned with keeping waterways open for navigation (Regulation 57 and *State Lands Act*, Section 22) and water sources clean for drinking (Regulation 108). Not until the *Environmental Protection Act* 1996 was there a legal concern about negative environmental impacts, but even then only in general terms (section 11 and schedule 4, item 9). Specifics for environmental controls on mining were introduced in the Mining Regulations 2005 but the website of the MNRE was still happy to display pictures in 2014 of chains of flooded abandoned mining pits with no rehabilitation of any kind, a reflection of the general disregard for restoration of devastated areas. Even after the Omai Gold Mine Ltd. disaster in 1995 when 1.2 billion litres of cyanide slurry spilled into the Essequibo River, astonishingly the Government 'allowed [the company] to forgo mandated land reclamation' (Lowe, 2014, p. 10).

The two largest donor-funded environmental projects targeted at the gold mining sector were Canada's CIDA GENCAPD project (1998–2005) and WWF Guianas Program projects including its 'Goldmining Pollution Abatement Project' (2008–2016). Neither bilateral donors nor the Big International NGOs (BINGOs) with long-term programmes in Guyana – WWF and Conservation International – investigated the practices that enabled opaque concession allocations, concentrated concession holdings and landlordism. Their reports sidestep issues of governance and corruption but recount no success stories or even indicators of progress (CI et al., 2013; Lowe, 2006, 2013, 2014).

### 3. Literature review

Published accounts of artisanal and small-scale mining (ASM) can be grouped into three general categories: the first ethnographic and place-based, the second from rights-based and legal perspectives and the third more focused on national environmental law and policy and their (non)implementation. In the first category are the first-person accounts of opportunistic Amerindian ASM included in a collection by Forte<sup>3</sup> and Melville (1989). Articles on mining and the Karinya/Carib (Forte, 1990, 1999; Whiteman, 2004) and on Amerindians in general (Forte 1996, 1997, 1998) detail the upheavals that followed for Amerindian societies, territories and economies in the wake of 'gold shouts'.<sup>4</sup> Ethnographic descriptions of the complex relationships among *porkknockers*,<sup>5</sup> Amerindian gold and diamond miners and Brazilian *garimpeiros* (miners) in the Pakaraima mountains homeland of the Patamona Amerindians during the years 1993–4 and 1997 are recorded in Roopnaraine's writings (1995, 1996, 1996/7; Trotz and Roopnaraine, 2009). Roopnaraine also detailed the distinct roles and 'interests' represented in mining camps.

The second category of literature focus on mining on Indigenous customary lands and is written from human rights and legal perspectives. These include the publications of the Amerindian Peoples Association (APA), the leading Amerindian NGO, and their partners (Colchester 1997; Colchester et al., 2002). Bulkan (2009, 2011, 2012, 2014a,b,c) and Harvard Law School (2007) examine these issues from a legal perspective. Common themes in this category are the serial disregard by State agencies of Indigenous rights to 'quiet enjoyment' (Article 111 of the *Mining Act* 1989) on their titled and customary lands and the persistent ignorance

displayed by the judiciary of Indigenous rights under Guyanese and international law and common law traditions.

In the third category are the published works of international academic researchers, which reflect some autonomy and attention to the power dynamics that link the political directorate to powerful entrenched mining interests (Bridge, 2007; Hilson and Vieira, 2007; Clifford, 2011). None disentangles the variety of stakeholders lumped under the generic term 'miner' which serves to obscure the loci of power. A recent paper by Laing (2015) equates correlation with causation as he attempts to credit the Ponzi REDD + scheme in Guyana (Bulkan, 2014b) and the uncertainty following the 2011 national elections with a reduction in the number of mining claims. Briefly, Laing deflects attention from the low annual Claim Licence fee by presenting only the Guyana dollar amount – G \$1000 for 11 ha (not mentioning its equivalence to <US\$5) (2015, p. 252). Nor does he investigate (a) the surging international gold prices during the past 15 years from an average of US\$271 in 2001 to US\$1668 in 2012 that stimulate gold mining carried out *via* a labyrinthine collection of *rentier* practices or (b) the (ab)use of *rentees'* failure to locate gold which likely account for the non-renewal at the end of a calendar year of some non-performing concessions.

The third category includes Lomarsh Roopnaraine's desk analyses of some environmental policies and practices, initiated and funded by international partners (Roopnaraine, 2000, 2002, 2006). Roopnaraine pays little attention to the webs of power in the gold mining industry that effectively nullify the environmental best practices that exist only on paper. His initial assessment was that 'during the last ten years or so Guyana has made an impressive start in [policy formulation]' (Roopnaraine, 2000, p. 209). Two years later he was less sanguine, concluding that 'Guyana's environmental policy is laggard and *ad hoc*, lumbering on a continuum from uncertainty to dissension. Regulatory bodies are running years behind . . .' (Roopnaraine, 2002, p. 83). Roopnaraine's 2006 article concludes with nine recommendations advocating even more exercise of top-down governmental authority in the command and control mode, without analysing the Government's lack of interest in reform nor even acknowledging its systematic abandonment of successive integrated land use planning programmes (p. 60–61).

### 4. Spatial scales of mining

Guyana's *Mining Act* 1989 restricted small- and medium-scale concessions to Guyanese nationals and allowed joint ventures. The intention was to protect the interests of the technologically- and financially-limited national sector. Perversely, as we show below, that safeguard facilitated the rapid expansion in 'evergreen' (or *de facto* perpetually renewable) concession holdings by a small clique of domestic investors who then set the terms of *rentier* transactions with foreign joint venture partners or with Guyanese *rentees* or 'tributors'.

The GGMC issues three scales of mining concessions by area – small-, medium- and large scale (Table 1). After the closure of the large-scale Omai Gold Mines operation in 2005, there was no large-scale mining operation until the commissioning of Guyana Goldfields Inc.'s hard rock operation in September 2015 (Stabroek News, 2015, September 16). The distinction between small- and medium scale exists only on paper. In practice Walrond et al. found that a small number of concession holders/*rentiers* monopolized concession holdings, both in number and area. Moreover, the same hydraulic mining methods are used in both concession types. A 2007 Harvard Law School study noted that 'According to Jack Morgan, then one of the most senior executives of the GGMC, the methods employed in medium scale mining are similar to those of

<sup>4</sup> A gold shout is informal but widely distributed news about a gold find or gold strike.

<sup>5</sup> A *porkknocker* is an itinerant coastlander prospector for gold and diamonds using labour intensive methods and rudimentary equipment.

**Table 1**  
Main criteria of large-, medium- and small-scale mining concessions.

	Large scale	Medium scale	Small scale	River location
Size of claim	500 to 12,800 acres (202–5,180 ha)	150 to 1200 acres (61–486 ha)	1500 feet long by 800 feet wide (27.5 acres) (11 ha)	no longer than one mile of navigable river
Topographic description on application	required	required	not required	not required
No. of claims per person/company	unrestricted	unrestricted	unrestricted	unrestricted
License type	<i>Prospecting Licence</i> to prospect on a property (up to 3 years). <i>Mining Licence</i> to mine on a property (valid for 20 years)	<i>Prospecting Permit</i> to prospect and mine on a property. <i>Mining Permit</i> to mine on a property.	<i>Prospecting Permit</i> to locate a claim. <i>Claim Licence</i> to mine on a property. <i>Mining Privilege</i> to be on or to work a claim owned by someone else.	<i>Prospecting Permit</i> to locate a river claim. <i>River Location Licence</i> to work claim.
Nationality of ownership	open (100% foreign owner allowed)	Guyanese only (joint-venture with foreigners allowed)	Guyanese only (joint-venture with foreigners allowed)	Guyanese only (joint-venture with foreigners allowed)
Renewal	<i>Prospecting Licence</i> for 2 terms of 1 year. <i>Mining Licence</i> for terms up to 7 years.	<i>Prospecting Permit</i> annually. <i>Mining Permit</i> every 5 years.	<i>Claim Licence</i> at the end of each calendar year.	At the end of each calendar year
Proof of financial and technical capability	required	not required	not required	not required
Lodging of performance bond	required	not required	not required	not required
Submission of progress reports	required	not required	not required	not required
Marketing	Gold could be exported directly from site	Gold must be sold to the Guyana Gold Board (GGB) or to authorized buyers	Gold must be sold to the GGB or to authorized buyers	Gold must be sold to the GGB or to authorized buyers
Environmental obligations	Environmental Impact Statement (EIS) and Environmental Management Plan (EMP) must be submitted.	Environmental Management Agreement must be signed. Legal requirement for environmental permit not enforced.	Environmental guidelines and advisories. Legal requirement for environmental permit not enforced.	Environmental guidelines and advisories. Legal requirement for environmental permit not enforced.

Sources: Environmental Protection Act, 1996; Lowe 2006, p. 34–35.

small scale mining, just on a larger scale' (Harvard Law School, p. 12, note 76).

Yet, at the GGMC's headquarters, small- and medium-scale concessions are administered by separate administrative divisions: Mines Division for small scale claims, prospecting permits and mining permits while the Land Management Division administers medium and large scale prospecting permits and mining permits. Walrond et al. concluded that 'there is no obvious rationale or justification for this separation which only leads to unnecessary duplication, slothfulness in titles management and unnecessary turf conflict. The skill set and physical requirements necessary for the maintenance of the registry for the titles in the different scales are relatively similar' (Walrond et al., 2015, p. 5). However, a parallel system provides more space for opacity, corruption and discretionary practices at more levels.

Each mining worker is required to have a Mining Privilege, a certificate which grants the holder the legal authority to work in a Mining District and dates back to the Amended Mining Regulations of 1905 (Josiah 2011, p. 50). The 'Mines Clerical' division of the GGMC issues Mining Privileges (Walrond et al., 2015, p. 41).

The GGMC and EPA do not consistently apply either mining or environmental protection legislation. In terms of environmental obligations, Section 11(1) and schedule 4 item 9 of the *Environmental Protection Act* (cap. 20:05, 1996) specify that all mining activities need an Environmental Permit because they 'may significantly affect the environment' and hence require Environmental Impact Assessments (EIAs). No exceptions are allowed. In practice, this explicit requirement is ignored, reputedly because of an administrative exception made by the then Prime Minister in his capacity of responsibility for mining in 1997, possibly in the

belief that the power to exempt in section 133 of the *Mining Act* overrode the *Environmental Protection Act*, which contains no such Ministerial power of exemption. This renders the environmental mining regulations (2005) ineffective.<sup>6</sup>

## 5. Obtaining mining concessions

Before locating a physical small- or medium scale claim, a prospecting permit (small scale), which costs c. US \$2.50 and is valid for one year, must be purchased from the GGMC head or district office or a Mines Officer. In the case of a small scale operation, once a physical claim has been located, on land or stretch of river, all four corners (in the case of a land claim) must be marked with claim boards that state the name of the claim holder, the date of location, the prospecting permit number and the name of the creek, flat or hill where the claim is located. Next the GGMC must be informed within 60 days and a notice of location must be completed and signed, and an application made for a claim licence which is the actual permission to mine for gold on a small scale. 'The claim will not be considered to be valid until there has been an on the ground verification by the GGMC' (Her Majesty the Queen in Right of Guyana, 2012, p. 16).<sup>7</sup>

<sup>6</sup> See also a statement attributed to the Chief Executive Officer of the Indigenous Peoples Commission, Autry Haynes, that 'for small and medium scale mining, an Environmental Impact Assessment is not required' (Stabroek News 23 March 2013, "Our last refuge" – Kako battling to protect river from miners").

<sup>7</sup> This report was prepared for the GGMC under the Canadian-funded GENCAPD (Guyana Environmental Capacity Development Mining Project).

**Table 2**  
Concession scales, no. and kind of mining licences (2007–2014).

Year/Total area allocated for mining	Total area under licences	Large scale	Medium scale	Small scale
1990	80,000 ha	202 to 5180 ha	61 to 486 ha	11 ha
1994	1.2 Mha (3 million acres)	50 applicants		
1996	2.2 Mha	>50 new		
1997	>3 Mha			
2007		13 prospecting licences, 10 mining licences	3594 prospecting permits, 373 mining permits	10,563 claim licences (116,193 ha), 65 prospecting permits
2008	13.4 Mha (33.3 million acres)	9.2 Mha (68.5%) (22.9 million acres); 13 prospecting licences, 10 mining licences	4.1 Mha (30.4%) (10.1 million acres); 5413 prospecting permits, 550 mining permits	12,582 claim licences (138,402 ha), 107 prospecting permits
2009		121 prospecting licences	6287 prospecting permits	
2010		136 prospecting licences, 7 mining licences	4879 prospecting permits, 742 mining permits	14,335 claim licences (157,685 ha)
2011		191 prospecting licences, 8 mining licences	5560 prospecting permits, 1074 mining permits	15,032 claim licences (165,352 ha)
2014		149 prospecting licences, 15 mining licences	7615 prospecting permits, 2904 mining permits	

Note: the peculiar numbers of hectares are due to the original data being expressed in feet and acres.

Sources: Bridge 2007; Colchester, 1997; Colchester et al., 2002; GGMC 2008, p. 7; Harvard Law School, 2007; Her Majesty the Queen in Right of Guyana, 2012 2009 figures from Her Majesty the Queen in Right of Canada 2012, p. 11; 2007 and 2008 figures from Thomas, 2009, p. 5; 2010 and 2011 figures from GGMC 2011, p. 15; 2014 figures from Walrond et al., 2015, p. 26).

At the medium scale, the applicant for a mining permit should fulfil additional requirements: supplying proof of 'an Environmental Management Agreement . . . an approved mercury retort . . . a closure plan, a contingency and emergency plan and lodge an environmental bond' (Her Majesty the Queen in Right of Guyana, 2012). A prospective large scale operator 'will have to submit a technical and economic feasibility study, a mine plan and an environmental plan' (Her Majesty the Queen in Right of Guyana, 2012). Noteworthy is the absence from the two lists of the EPA requirement for an Environmental Permit even though the EPA as primary law takes precedence over GGMC's Regulations (see Section 2).

## 6. Spatial coverage of three scales of concessions – change over time

GGMC maps show that medium- and small-scale mining concessions are laid out side-by-side in rectangular blocks over large areas, regardless of topography, sometimes remote from mapped or likely mineralization. It is not clear how the potentially gold-bearing areas in State Lands and State Forests have been segmented by GGMC into the three area categories. The 2008 data indicate that the lion's share by area was reserved for large-scale prospecting: 13.4 Mha or 97.5% of available mining lands were alienated under large- (69%), medium- (30%) and small scale (<1%) prospecting permits or claim licences (Table 2) (GGMC, 2008, p. 7).

Since the liberalization ushered in by the 1989 *Mining Act*, concessions have been held as speculative investments because they are cheap to acquire and cheap to retain: 'the number of new claims more than doubled from 1316 in 1988–3,070 in 1991. This was a period in which gold prices actually fell, suggesting that the increase in claim activity in Guyana was driven more by the liberalization of mining legislation (which facilitated the process of making claims) than by international price trends' (Bridge, 2007). Between 2011 and 2014, as the international gold price rose, medium-scale mining permits almost tripled and small-scale claim licences also increased (Table 2). As noted (Table 1), joint ventures with non-Guyanese individuals or companies are permitted at the medium- and small-scales. There are no restrictions on the nationality of holders of large scale prospecting and mining licences.

**Table 3**  
No. of registered river dredges.<sup>8</sup>

Year	No. of registered dredges
2001	927
2002	1022
2003	1092
2004	1188
2005	1503
2006	1617
2007	1794
2008	2072
2010	3102
2011	1524
2012	1803
2013	1203

Sources: Lowe 2006, p. 14; GGMC 2008, p. 10; GGMC 2011, p. 15; GGMC 2012, p. 33; CI et al., 2013, p. 9.

Table 3 lists the registered river dredges between 2008 and 2013. In 2005 there were an estimated 9000 unregistered dredges operating in the interior, while only 1500 were registered (Harvard Law School, 2007, p. 32).

## 7. Retaining licences according to mining law and in practice

In law, small- and medium scale mining concession holders enjoy time-limited and circumscribed rights to demarcated areas of public lands. In practice, they exercise the following rights customarily associated with private (freehold) property: 'a right to use and manage the property; to derive income from renting it to others; . . . and to operate without a term limiting the possession of these rights' (Weaver, 2006, p. 49). Concessions at small- and medium scales cannot be transferred by private sale to other concession holders (Section 58(2) of the *Mining Act*). Large-scale concession licences can be sold with prior agreement of the GGMC (Section 28 of the *Mining Act*).

<sup>8</sup> The judicial system is generally perceived to be slow and ineffective in enforcing contracts or resolving disputes. Perceptions of corruption and long delays make the courts an unattractive option for settling investment or contractual disputes, particularly for foreign investors unfamiliar with Guyana' (US Department of State, 2013).

Walrond et al. noted that ‘While the GGMC has the authority to not grant these [medium scale] Permits if it deems the holder incapable of assuming the obligations of the performance in this scheme (lack of capacity), or to prevent renewals for the same reasons or non-performance, this system is operating much like the [small scale] claim system, where there is an “automatic” expectation of allocation, or retention regardless of capacity or effort’ (Walrond et al., 2015, p. 35).

Concession licences are cheap, are renewed automatically, and are concentrated in a small number of individuals. Table 1 sets out the conditions for retention of mining concessions. Claim Licences at the small- and Prospecting Permits at the medium scale have to be renewed at the end of each calendar year; and mining permits at the medium scale every five years. Table 4 shows that licence fees are nominal. There is no limit on the number of licences that can be held by one miner or mining company. In practice, concession renewal is automatic regardless of whether the concession holder is engaged in mining or not.

As almost all the area allocated for mining at the small and medium scales is held under concession licences, the only option available to most current or prospective miners is to negotiate a contract as a ‘tributor’ on a concession held by landlords. A tributor or tenant is ‘one who works in a contract agreement with a claim owner for a percentage of the mineral output. The relationship between the claimholder and tenants is governed by private contract’ (Lowe, 2006, p. 9). Tributors paid an annual fee on each piece of mining equipment in addition to the tribute. The landlord also endorsed the Mining Privileges of each worker attached to the tributor (Stabroek News, 2015, 14 June). The unsatisfied demand is demonstrated by the fact that the Land Management Division ‘receives 200–250 new applications for medium scale properties on a monthly basis’ (Walrond et al., 2015, p. 6).

Monopolised land holdings in forestry and mining are linked to low concession fees. As Grut et al. noted in relation to logging concessions in West and Central Africa, ‘forest concessions are commonly allocated at minimal fees, with the result that large areas are sought and acquired, the forest is treated as a “free good”, held for speculation, and exploited rather than managed’ (Grut et al., 1991, p. 2).

Walrond et al. computed that in 2013 or 2014 the 50 individuals or enterprises with the largest numbers of mining claims held 82 per cent of the area under small-scale claims (12,279 out of a total of over 15,000 claims, covering an area of 135,069 ha) (Walrond et al., 2015, p. 91). One person held over 1500 claims. Likewise, for

medium-scale mining permits, 38 persons held 45 per cent (3422 of all Prospecting Permits Medium Scale (PPMS)) and the 24 entities with the most permits held 42 per cent (1222 out of a total of 2904) (2015, p. 92). The then GGMC Head admitted the land hunger among prospective claim holders:

‘GGMC Head Rickford Vieira highlighted that the root cause of some of the disorders can be linked to competition for available working lands. He said that this is supported by the evidence of 3550 new applications for land claims, 949 new river claims, and 3236 new mining privileges which were issued’ (Stabroek News, 2015, 7 February).

Astonishingly some concession holders were allowed to renew their concessions even though the annual fee was in arrears (Walrond et al., 2015, p. 30. Press accounts in early 2016 confirmed Walrond et al.’s finding of near-monopoly control by a few persons over the area allocated for small and medium-scale concessions (Guyana Chronicle, 2016; Gaskin, 2016). The extent of the concentration of State-issued mining properties in a few hands is alleged to be even higher given the practice whereby concessions controlled by one person are often held in someone else’s name.

Unsurprisingly, Walrond et al. found that raiding or unlicensed mining was ‘a huge problem’ [on account of] ‘corruption, data entry . . . also “sloppy” with coordinates that plot in the wrong place . . . Some Mines Officers do not appear to be familiar with the best methods of researching the validity of a claim even though there is a SOP [standard operating procedure] to train officers. Issues that are critical include the dates when claims were located and verified, whether they were relocated, and the dates when larger scale permits were applied for. Often older maps for verified claims cannot be located, or are inaccurate’ (Walrond et al., 2015, p. 43).

Walrond et al. noted the intent of mining law and policy was ‘beneficial occupation’ and equity in access for small-scale miners. In their view:

‘It was never and could not be the intention of the framers of the mining laws for one artisan/small miner to own over 1000 claims . . . By definition, the small-scale miner is assumed to have his operations limited to mining with tools, which have the ability to move less than 200 m<sup>3</sup> of earth, including overburden in any given day. Similarly, the overarching consideration is that he cannot explore vast tracks of land with his limited resources and if he must operate in this

**Table 4**  
Official fees for prospecting and mining permits.

Mineral property, licence type	\$/acre/annum	US\$/ha/annum
Prospecting Licence (large scale)	US \$0.50 for first year	0.20
	US \$0.60 for second year	0.24
	US \$1.00 for third year	0.40
	US \$1.50 for fourth year	0.61
	US \$2.00 for fifth year	0.81
Mining Licence (large scale)	US \$3.00 for over 5 years	1.21
	US \$5.00 (foreign ownership)	2.02
	US \$3.00 (local ownership)	1.21
Prospecting Permit (medium scale)	US \$0.25 for first year	0.10
	US \$0.35 for second year	0.14
	US \$0.45 for third year	0.18
	Thereafter, an additional US \$0.10 per acre for each successive additional year	
Prospecting Permit (small scale)	G \$500 (US\$2.5)	
Mining Permit (medium scale)	US \$1	
Claim Licence (small scale) to mine for gold and precious stones	G \$1000 (US\$5)	
River location licence (presumably per mile)	G \$2000 (US\$10)	

Source: Her Majesty the Queen in Right of Canada 2012, p. 112.

scheme, he must limit his total holdings in any given year to acceptable levels. If he is unsuccessful, then he can relinquish it and move elsewhere or pay the small price of the rental for not allowing someone else the opportunity to work on that ground. In a practical sense, there must be a limit to claim holding and 20 claims ( $\approx 500$  acres) would be on the generous side for persons wishing to engage in the small-scale scheme of mining' (Walrond et al., 2015, p. 35).

## 8. 'The pervasive perception of corruption'

The growth of authoritarian government from the attainment of independence from colonial rule in 1966 has weakened the intended system of checks and balances in public administration. Until the change of government in May 2015, the State paid scant interest to the market value of gold, the wasting resource whose exploitation brought financial wealth to a few but at a high cost to the hinterland ecosystems and communities and to the workers at the bottom of the value chain. The rentiers were interested in the 'cut' which they could top-slice from the mining workers and mining operations that did the actual work. Rentier 'owners' negotiated deals with sub-contractors (some foreign, others local) without any involvement of the State, the owner of mining lands. The government made no attempt to establish a sovereign wealth fund from mining taxes or to enforce Mining Regulations. Instead some rentiers maintain private armed enforcers, and their extra-legal actions were immune on account of their power or Party political connections. Some of the large concession holders reputedly practised a rough form of frontier justice, contributing to the climate of fear in their concessions (pers. comm.). The upshot was the *de facto* privatization of public lands and the socialization of the environmental and human costs of gold mining.

The management and systems review of the GGMC carried out in late 2014 noted in several places 'the pervasive perception of corruption, perceived lack of transparency and a low public image of the Commission' (Walrond et al., 2015, p. 2). The aforementioned discretionary power held by the Minister (see Section 2) appeared to have been (ab)used by 'the granting of specific requests for Closed Areas . . . not always the subject of clear and transparent justification' and by not cancelling certain Mining Permits even though the low rental fees were not being paid for them (Walrond et al., 2015, p. 30).

'Closed Areas' refer to lands hitherto held under large-scale Prospecting Licences that are progressively released by the concession holder into the public resource available for re-allocation. A 'Closed Areas Committee' had been formed in 1994 to advise the Minister on the apportionment of these released areas among the different scales of mining. This Committee was effectively defunct between 2005 and 2014, replaced by Ministerial discretion (Kaieteur News, 2014, January 29). When revived in 2014, the Committee was chaired by the Chair of the GGMC Board, an individual implicated in acquiring mining concessions through insider trading (Goolsarran, 2015).

Perhaps because of the shortage of other investment and employment prospects in Guyana, and the cultural importance of bush life especially for young male African Guyanese, at times of relatively high gold prices there are far more people seeking access to land for mining than the numbers of available mining claim (licences). Thus it is a seller's market from the point of view of rentiers. By the 1990s, rentiers alone determined who could be a rentee and the rate of rent or 'tribute'. Almost all obligations on the holder of a mining claim can be passed on to the sub-contractor. The importance of gold mining inheres in its generation of jobs and foreign exchange. The State which is the *de jure* owner of mining

lands continued to treat landlordism as normative by issuing 'certificates of registration' and 'mining privileges' to the estimated >8000 active miners, mostly tributors or rentees on concessions held by GGDM members (GGMC, 2012, p. 16).

The system was protected by the lack of administrative oversight, cronyism and an inefficient judicial system: 'The current laws . . . allow properties to be challenged. However, challenging a property is onerous and time consuming, and may not be worth the effort. In any case, this is not the *modus operandi* of the current community' (Walrond et al., 2015, p. 29).<sup>9</sup>

Another key issue is the adversarial race relations that permeate all aspects of political, economic and social life, including in the mining sector (Bulkan, 2014b). A study of patterns of tenure insecurity in Guyana noted, 'a more general reality needs to be recognized, namely that in Guyana, politics, economics, ethnicity and access to land are all entangled to form a complex and often volatile mix' (Lemel, 2001, p. 3). As explained below, the former East Indian-dominated Government did not succeed in exerting total control over the majority African, Portuguese and Mixed members of the GGDM. The Government circumvented the power of the GGDM to some degree by allocating mining concessions to its supporters and supporting new associations. As Walrond et al. explained:

'Strong complaints have been received related to handling of prospecting licences (PL) renewals as well as PL applications with respect to multiple minerals . . . One issue is that directives can come from higher in the chain. Some public concern occurs with respect to the way recently small parts of a PL have been transferred to a Medium Scale Mining Licence, allowing mining without the official requirements of an EIS (Environmental Impact Study) and a mineral agreement. Two specific examples are known (Mahdia Gold and Eagle Mountain). At what level this is authorised is a question' (2015, p. 20).

The resulting concentration in ownership of public property mirrored the situation in the forestry sector; both benefitted from State cronyism (Bulkan, 2014a). A forensic audit of the Guyana Gold Board in 2015 confirmed the practice of automatic concession renewal for the politically favoured, not linked to evidence of gold production, payment of annual licence fees or compliance with environmental obligations (Stabroek News, 2016b, April 28).

## 9. Landlords, tributors and the normalisation of illegalities

The terms 'landlord' and 'landlordism' appear frequently in reports and articles on mining in Guyana and describe what has become a normative practice on the coast and hinterland – the private renting of publicly owned resources. 'Landlordism . . . has a long history in Guyana, first appearing in mid 1890s when large local investors began to desert the industry in the face of tougher mining laws' (Lowe, 2006, p. 12). Arguably landlordism goes back to Dutch times when plantation owners and managers did not go to the forest to cut trees themselves but commissioned free (formerly enslaved) Africans to harvest trees and to work the land grants and leases secured by the plantocracy. The rentier practice in mining is acknowledged in the Mining Regulations (1972, part XVI, regulations 143–156) although the practice appears to be contradicted by sections 62 (2) (a) and 63 (3) (a) in the *Mining Act* (1989): 'the Commission shall not grant a mining permit or claim licence – (a) if it has reasonable grounds to believe that the applicant does not intend to carry on, in good faith, within the limits of his

<sup>9</sup> The highest annual production in that first period was of 139,000 ounces of gold in 1894.

competence and resources, mining operations in the proposed claim’.

The GGDMA which represents concession holders only has successfully resisted any changes in policies or procedures that sought to cap the number of concessions that could be held by one person or company or end the practice of automatic renewal of concessions annually. The Mining Regulations (1972) concerning lessees and tributors (contractors and their workers) do not impose any technical obligations on either the rentier or the contractor, and afford no security of tenure to the contractor.

The GGMC’s presence in the mining areas was and remains minimal. In 2007, ‘11 Mines Officers [were] employed . . . [at a] monthly wage of US \$270 . . . [the] value of one ounce of gold ranged between US \$400 and US \$575 (Harvard Law School, p. v). Unsurprisingly, at that time there was “a standard bribe of one ounce of gold to get a mines officer to ignore a tailings dumping problem (Harvard Law School, p. 13). Seven years later, Walrond et al. inferred that GGMC monitoring had not increased: ‘Interestingly, the supplies and field expenses as a percentage of the total expenditure has been steadily reducing (except field expenses 2014) suggesting that the extent of field activity has reduced, or that the cost of doing fieldwork has reduced . . . the former better reflects reality . . . ’ (Harvard Law School, 2007, p. 3). By 2012, the number of field officers had increased to about 38 (GGMC, 2012).

The GGMC’s performance as a regulatory agency was rated as poor (Waldron et al., 2015). State inaction gave the rentiers a free hand: contractors were used in effect as prospectors, and then ejected by the rentier landlord if significant gold were found (Thomas, 2009, p. 19). There was consequently no incentive for the contractor to engage in environmentally or socially responsible mining.

In the period after 1989 and particularly after 2007 when the price of gold began to climb, the mostly African Guyanese men could only gain access to mining lands as workers for claim/permit holders or as tributors. In 2006, Lowe estimated that ‘80% of mining occurs through arrangements whereby miners take positions on someone else’s claim. Claim owners would traditionally charge their tenants (or tributors) a tribute of 10% of gold won on the property. As these arrangements are private and follow no industry standard, the size of the tribute can vary from case to case’ (p. 12).

There is no official recording of such arrangements and no requirement to do so in the successive Mining Acts. Brazilian miners dispersed across the three Guianas allegedly were willing to pay higher rates of tribute, perhaps linked to the charge that they exported a large proportion of mined gold illegally back to Brazil through the porous border, thereby not paying State taxes and royalties. ‘The GGMC estimates that there are over 1000 Brazilians in the industry . . . 17% of persons employed in small and medium scale gold and diamond mining . . . 17% of dredges are owned by Brazilians’ (Lowe, 2006, p. 11).

There is very little disaggregated data in the only two annual reports – 2011 and 2012–submitted in recent years by the GGMC to the National Assembly (GGMC, 2011, 2012). The 2011 Annual Report recorded that ‘1767 persons held “Certificates of Registration” and 6572 held Mining Privileges’ (GGMC, 2011, p. 16). Regulations 161, 163 and 167 of the Principal Regulations of the *Mining Act* 1989 address the issue of maintaining a record of all labourers with a lawful right to be present in a Mining District. Regulation 167 specifies that ‘The Registering Officer shall keep a record of the names, ages, residence, places and terms of employment and proposed wages of persons registered and of such other particulars as the Minister may direct’. Yet, by the GGMC’s own admission, only a quarter of mining labourers held ‘Certificates of Registration’ (1767 of 6572 persons holding Mining Privileges) – further evidence of the lack of oversight of

landlord-tributor relations by the regulatory agency in the Mining Districts.

Only a small percentage of prospective gold workers have secured contractual employment with the few reputable gold mining companies that offer regular salaries, benefits and insurance. For most, the precariousness of their livelihoods is part of the story of gold mining in Guyana, in which the labourers who take the most risk earn the smallest share. Safe work regulations exist only on paper and some sub-contractors of the concession holders take risks that result in fatalities. The past Government’s lack of interest in enforcing regulations meant that the numbers of deaths in mining pit cave-ins and related tragedies might be reported in the Press or not at all. 10 deaths in 2014 and by August 2015, at least 14 deaths had been recorded, with two lives lost on 1 and 2 September 2015. Following the deaths of 10 miners in May 2015, the Press repeatedly called for more active involvement of the Ministry of Labour (Kaieteur News, 2015, 8 June). In June 2015 the new government announced a Presidential Commission and promised to follow up on its recommendations.

An anonymous newspaper contributor was not contradicted in his statement: ‘It is a well-known fact that, mine owners/managers deem their workers to be self-employed persons in order to reduce administrative overheads by not having to pay the employer’s portion of a contribution which is 8.4% of the worker’s insurable wages’ (Stabroek News, 2015, 13 July). The writer noted that few of the hand-to-mouth mining workers register as self-employed persons under the National Insurance Scheme which would require them to make a monthly payment at the rate of 12.5% of their insurable wages. As a result, the families of dead miners receive neither death nor survivor’s benefits.

Mining insiders did not hold out much hope for the Presidential Commission on mining accidents. A mine worker who spoke to the Press on condition of anonymity expressed the view ‘that the frequency of mining accidents and the attendant loss of life was a reflection of what he described as a “long-standing pattern of lawlessness and indifference to the value of human life” that obtains in the sector . . . The problems start with corruption and the fact that the government can’t seem to enforce rules. The places where we mine gold are far away from Georgetown and when you are in those places you are on your own. You do as you like. The boss makes the decision and the people take the risks. It’s how we make a living.’ According to the miner the absence of controls and adherence to regulations in some mining operations had to do with a culture of corruption that causes mining officials to “turn the other way” as far as ensuring that the regulations are adhered to. ‘It’s the gold and the money that talks’ (Stabroek News, 2015, 14 August).

## 10. Economic importance of gold mining – changes over time

Gold mining was in its heyday in two periods: between 1884 and 1914 and from 2005 to the present (2015). In both periods, gold production and export made up a sizable part of the economy. In the peak years of the first period – from 1884 to the turn of the century – gold production increased from 6518 troy ounces in 1886–134,124 troy ounces in 1892, and indeed during a six-year period (1884–1900), over one and a quarter million troy ounces of gold were produced. By the turn of the century, gold exports made up 22 per cent of colonial exports.<sup>10</sup> In the second period, from around 2000, Guyana’s economy became increasingly dependent on the proceeds of gold mining (Clifford 2011, p. 355). Lucas (2015)

<sup>10</sup> The CI et al. figure for registered dredges is 12,039. Both CI and WWF have confirmed that this is a typographical mistake, repeated in the various drafts (pers comm).



noted ‘... gold has been the single largest earner of foreign exchange for Guyana. Its foreign receipts dwarf those of sugar, rice, timber, fisheries and bauxite, the other major exports of Guyana’ (2015).

Gold mining is the classic boom and bust industry, responsive to rises in the price of gold in times of global economic insecurity when gold is seen as a safer investment than stocks, bonds or currency. Declared output from gold mining tracked in tandem with the international gold price to a high of US\$ 1668 in 2012 on the London bullion market which averaged US \$638 between 2000 and 2011, rising from US \$273 in 2000 to US\$ 1652 in 2011; see Fig. 1.

The *Guyana Gold Board Act* (cap. 66:01 of 1981, sections 6–10) stipulated that all gold produced by local miners had to be declared and sold to the Guyana Gold Board (GGB). In 1994, the *Guyana Gold Board (Amendment) Act* removed the monopoly of the GGB as the sole purchaser of gold, providing an option for production from any kind of mining operation to be sold to licensed gold buyers or dealers. The extent of under-declaration (see Section 11) suggests that this legal requirement is widely ignored. Walrond et al. found that ‘a cursory examination of the declaration by producers/declarers of gold and diamonds demonstrate absolutely no correlation between large claim holding and production/declaration’ (2015, p. 7).

The GGC does not publish data on gold produced by individual holders of small- and medium-scale concession holders and/or by the rentees on those concessions. The *Mining Act* 1989 is not explicit about production records, although Mining Regulation 181(1) appears to require the keeping of daily records. The only official record of aggregate gold production is issued by the GGB. It is not clear that the GGB figures include the gold purchased by the licensed gold buyers. As the GGC’s presence is thin on the ground in all Mining Districts it seems unlikely that the Commission can corroborate the miners’ declarations with sales to the GGB and to licensed dealers.

A comparison of the statistics for gold production and gold exports in Bank of Guyana annual reports show large positive differences in the late 1990s, suggesting either hoarding of production or undeclared exports. However, from 2000, there are no significant discrepancies between gold production and exports, thus suggesting that the acknowledged illegal under-declaration of production and smuggling was taking place in the under-ground economy.

National elections in May 2015 ushered in a coalition government after 22 years of uninterrupted PPP rule. Declarations of gold production had peaked in 2012 and the new government announced that it would crack down on ‘rampant’ gold smuggling (Stabroek News, 2015, 27 August), estimated to be as much as

15,000 ounces per week’ (Guyana Ministry of Finance, 2015, p. 7). The Minister of Finance repeated this estimate in his 2016 Budget speech (Jordan 2016). The Guyana Gold and Diamonds Miners Association (GGDMA) protested the government’s claim but without offering any evidence to the contrary (Stabroek News 2016a).

Access to valuable tax concessions such as duty-free fuel is in theory restricted to miners who have some declared gold production and are tax compliant. Fig. 1 shows a close correspondence between the official data on artisanal gold production between 1990 and 2010 and GGB purchases. The persistent acknowledgments of undeclared gold production made by Government officials and others (AP, 2012; Gildarie 2012; Guyana Times 2014; Jordan 2016), and the repeated assertions that at least half of the gold produced is never declared in the published production figures have been confirmed by US authorities (see Section 11). There would be further confirmation of large-scale gold smuggling in a forensic audit of the GGB done in 2015 (Ram and McRae 2016; Stabroek News, 2016b, April 28).

In practice, until the change of government in 2015, favoured miners were allegedly being granted duty free concessions in spite of being in tax arrears (Stabroek News, 2015, December 4). In its 2015 Budget, the Government announced some additional concessions for miners but linked them to evidence of tax compliance. Unsurprisingly the GGDMA said it was in negotiation with the Government including on the issue of ‘negotiating an amnesty for those miners who are not tax-compliant’ (Stabroek News, 2015, 19 October).

Fig. 2 shows that gold exports as a percentage of GDP per annum averaged 9 per cent in the 1990s, 11 per cent in the first decade of the 21st century and 20 per cent during the years 2010–2014. Note that only in the three years 2011–2013 have declared gold exports exceeded the long-term average 9–16 per cent of GDP since 1993. Given past trends, it is likely that gold production from small- and medium-scale mining will continue to fluctuate in tandem with the international gold price.

The importance of the sector lies in its multiplier effects. Gold workers at all levels earn wages that are among the highest paid in Guyana. Both Thomas and Clifford estimated that over 90,000 persons or an estimated 12–14 per cent of the population (750,000 in the 2012 census) were directly or indirectly dependent on the gold and diamond mining industries (Thomas, 2009, p. 13; Clifford 2011, p. 356). The gold fever enabled the GGDMA, the representative of mining concession holders, to successfully resist any changes in policies or procedures that appeared to restrict their personal interests. For example, the (ab)use of mercury has not slowed (Legg et al., 2015) and furthermore, concession holders

Artisanal gold production and GGB purchases, 1990 - 2010

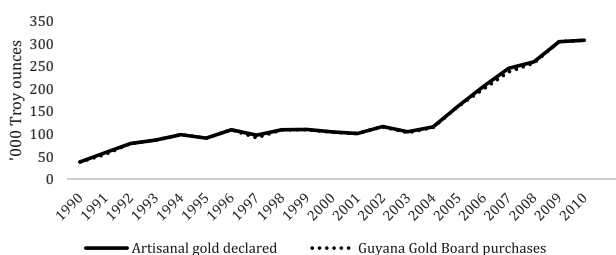


Fig. 1. Artisanal gold production and GGB purchases, 1990–2010.

Sources: Bank of Guyana Annual Reports; Bureau of Statistics Annual Reports; Guyana Gold Board Note: Koz = ‘000 troy ounces.

Artisanal gold production as % GDP, 1990 - 2014

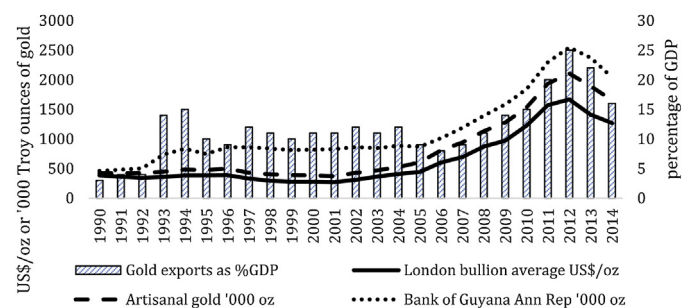


Fig. 2. Artisanal gold production as % GDP, 1990 – 2014.

Sources: Bank of Guyana Annual Reports; Bureau of Statistics Annual Reports; Guyana Gold Board Note: Koz = ‘000 troy ounces.

have evinced no interest in accessing the funding available “to examine and test mercury-free gold mining equipment” (Stabroek News, 2015, 11 January). It is the State, as ultimate owner of public lands and in conformity with its obligations since 2014 under the Minamata Convention, which has to enforce a move towards mercury-free mining.

## 11. Losses to the exchequer

The losses to the Nation State can be grouped into financial, social and environmental categories. We restrict our review to the financial losses only in this article.

### 11.1. Financial losses

Citizens of gold-producing countries expect their governments to monitor production and trade so as to capture the maximum net social benefit for State coffers from a mineral which is a wasting asset and whose production is linked to negative environmental and social externalities. In the absence of publicly collected and available data, the losses to the State from the lawless gold mining sector can only be inferred. State officials have admitted informally to the loss of revenue from undeclared gold smuggled; the lack of action can be attributed to political patronage. In 2005, a Harvard team were told by GGMC officials that as much as an estimated 30 per cent to 80 per cent of undeclared gold (then estimated at US \$200 million) were smuggled out annually without being taxed (Harvard Law School, 2007, p. 32). “Anantiram Balram, the financial officer of the Guyana Gold Board (GGB) estimated that only two-thirds of gold mined in Guyana was sold through the GGB . . . Balram also pointed out that a high number of the miners selling their gold to the GGB are unregistered as a consequence of the high levels of illegal mining taking place in Guyana” (interview on 12 January 2005) (Harvard Law School, 2007, p. 33). Ten months later, ‘Robeson Benn, Commissioner of the GGMC, estimated that miners produced three times as much gold as they declared’ (interview on 25 October 2005) (Harvard Law School, 2007, p. 22, note 149).

Some evidence of how the system worked emerged from events outside the control of the Guyana Government. In this section we present three additional instances of financial losses to the State: (i) payments made by two foreign companies to holders of Mining Permits Medium Scale (MPMS); (ii) the Curaçao gold heist in November 2012 and (iii) the US Government’s exposure of a gold smuggling ring in August 2015.

### 11.2. Payments to holders of mining permits medium scale made by foreign companies

Mining Permits Medium Scale (MPMS), legally held by Guyanese only but with joint ventures with foreign entities allowed, increased from 373 in 2007–2904 in 2015 (Table 2). MPMS, like small-scale claim licences, are prized commodities for the Guyanese rentier class. Gavin Bridge, who had access to GGMC files, confirmed the scale of private wealth transfers from the early 1990s: ‘Records of firms that began operating in Guyana during the early 1990s, for example, suggest that the holders of mineral rights could be paid between US \$3000 and US \$4000 per permit for their role in putting up the land as part of a joint venture, with royalty agreements capable of earning the holders tens of thousands or even hundreds of thousands of U.S. dollars per year’ (2007, p. 84).

Appendix A details the payments in cash (US \$1,565,000), common shares (US \$426,687) and purchase warrants (US \$104,420) made to Wayne Vieira, ‘under option’ for 4 medium scale Mining Permits, by Canadian-owned StrataGold Guyana Inc. over a seven year period (2004–2011) (Boyle 2011). The maximum size of a medium scale permit is 486 ha (Table 1) so at most Vieira’s

four permits covered 1944 ha or 0.05 per cent of the total area allocated to medium scale concessions in 2008. This information only came into the public domain after Vieira sued StrataGold Guyana Inc. when they applied to the GGMC for the option to acquire the Mining Permits.

Walrond himself was the rentier in a similar deal which came to light in 2010. Canadian mining company, Shoreham, agreed ‘over a five-year period the principals [Messrs Grantley Walrond and Lumumba] of [MPMS] Mariwa will be paid an aggregate of US \$1 million and will issue an aggregate of 1.5 million common shares’ (Stabroek News, 2010, 7 April). The newspaper account detailed a range of other payments for the 4000 ha MPMS. The then President of Guyana, Jagdeo, admitted that he had instructed that the MPMS be issued, even though he did not have any authority in law to do so. Before his partnership with Lumumba, a Presidential Advisor, Walrond, a former GGMC Commissioner, had owed US \$25,000 in unpaid concession fees on Mariwa (Stabroek News, 2010, 26 April).

Even if only a fraction of the MPMS holders were able to leverage financial payments on the scale of Vieira, Lumumba and Walrond, the sums provide an indication of the wealth transfers to individuals who enjoyed *de facto* privatize benefits from publicly owned lands.

### 11.3. The Curaçao gold heist in November 2012

On 30 November 2012, the crew of a fishing boat, the ‘Summer Bliss’ which had just docked in Curaçao from Guyana was held at gunpoint and relieved of 70 gold bars [weighing 476 pounds] worth an estimated US \$11.5 million. It took the Guyana Press to calculate that ‘If the gold was smuggled out of Guyana, the country has lost US \$805,000 based on the five percent royalty and two percent tax’ (Chabrol, 2012). The Government of Guyana made no attempt to pursue the matter in the 2.5 years up to the change of government in May 2015.

At first, Guyana’s Minister of Natural Resources and the Environment maintained that ‘stolen Curaçao gold didn’t originate here . . . as there is no paperwork to suggest it left these shores’ (Stabroek News, 2012a, 8 December). However, a crewmember reportedly told investigators in Curacao that the boat had departed Guyana four days prior to the robbery (Kaieteur News, 2012, 29 December).

Corroboration of the likelihood of Guyana Government involvement in or knowledge of the heist was furnished by the actions of the Curaçao and US authorities who ignored the former in the investigations mounted. The GGMC Commissioner was reported by Stabroek News as ‘saying that persons on the Dutch island were not cooperative. “Our people are still working on the report. People in Curaçao were not cooperating with our people. They never spoke with the crew members; all the information they got is on the robbery,” he said’ (Stabroek News, 2012, 29 December).

The Curaçao and US authorities probed a pattern of Guyanese raw gold smuggled from Guyana, laundered in Curaçao and then shipped to the USA: ‘. . . reports have surfaced of a dossier on illicit shipments from Guyana for the last 15 years’ (Stabroek News, 2013, 3 February). The boat crew were placed under witness protection (Stabroek News, 2013, 26 May).

Informed sources in Guyana were in no doubt that the Curaçao and US authorities offered witness protection to the smugglers: ‘According to a security source, from all indications local authorities know the identities of those behind the Curaçao gold but are making little effort to investigate them. Stabroek News was told that gold smuggling is a business that has been going on for years and had it not been for the heist its extent probably would not have been exposed’ (Stabroek News, 2012, 8 December).

#### 11.4. *The US government's exposure of a gold smuggling ring, August 2015*

In late August 2015, Guyanese and US authorities released some details of a money laundering and gold smuggling racket that had fleeced the country of more than US \$200 million between November 2014 to March 2015. The smugglers were moving gold through the country's airports to the USA and Brazil.

The head of the Special Organised Crime Unit (SOCU) told the Press 'there is evidence of a large-scale network involving several locally-registered mining companies in the smuggling of gold out through the country's major ports. "Based on information gathered we suspect a number of major networks/individuals are engaged in this practice . . . there are hundreds of people . . . some are well-established businesses licensed to export gold," he said' ([Stabroek News, 2015, 3 September](#)). The investigations were still on-going in October 2015.

## 12. Policy recommendations

Even in the absence of an overall national policy on mining ([Thomas, 2009, p. 32](#)) it seems clear that the successive versions of the mining legislation did not envisage the massive accumulation of claim licences for small-scale mining by a small number of individuals. Guyana has committed to revise legislation for mining and forestry, in the strategy for the Ministry of Natural Resources and the Environment ([GLSC, 2013](#)). The rentier mentality is too deeply embedded in the business life of Guyana to be swept away simply by legislation. However, the economic, environmental and social damage and poor governance caused by the current rentier practices in mining could be reduced by:

### 12.1. *Rentier responsibility*

Rentier responsibility making the mining licence holder legally responsible for acts of commission and omission in every licenced mine. Thus the licence holder, not the contractor or tributor, would be responsible for implementing the environmental mining regulations, including soil and water management, health and safety requirements, and post-mining site restoration.

### 12.2. *FPIC*

Free, Prior And Informed Consent – an obligation with respect to the nine Amerindian Peoples which was acquired by the Government of Guyana when it endorsed the United Nations Declaration on the Rights of Indigenous Peoples in September 2007. FPIC is stated as a national policy in the second version of former President Jagdeo's Low Carbon Development Strategy ([Guyana Office of the President, 2009, p. 59](#)) although only the Members of Parliament of the governing Party approved the LCDS in the National Assembly. UNDRIP 2007 is only the latest of a series of assurances by which Amerindian communities can prevent unwanted mining in their titled and customary territories:

- the guarantee of land titling in annex C, section L, of the Independence Agreement with the United Kingdom in 1965 ([Letwiniuk, 1996, p. 50–51](#));
- the preamble to the *Amerindian Lands Commission Act* (cap. 59:03, 1966);
- section 111 in the *Mining Act* 1989—the 'quiet enjoyment' clause;
- the preamble and articles 149 (G) of the *National Constitution* (cap.01:01, 1980/2003);
- sections 48–53 of the *Amerindian Act* (cap. 29:01, 2006). However, section 50 allows the Minister to override a Village refusal on the grounds of 'public interest', although neither this

Act nor any other legislation contains a test for what is the public interest.

- Other safeguards of unspecified Amerindian rights are in the Regulations (1974) to the *State Lands Act* (cap. 62:01, 1972) and in the *Forests Act* cap. 67:01, 2009, section 5 (2) (e).
- Insistence by Amerindians on the consistent application of FPIC in dealings with government agencies, miners and the courts of justice would need to be paralleled by training of judges and lawyers as well as of the Ministry of Indigenous Peoples' Affairs (formerly the Ministry of Amerindian Affairs before 2015), who have not shown in the last five years that they understand Native Title or the rights that flow from such title. Amerindians negotiating co-management rights from Native Title over customary and titled lands would be consistent with the implementation of the national policy of integrated land use planning, as proposed in the strategic plan for the Ministry of Natural Resources and the Environment ([GLSC, 2013](#)).

### 12.3. *Sovereign wealth fund*

gold and other minerals as non-renewable resources which are public assets are valued fiscally only in terms of the primitive levy of royalty. It is arbitrary that a royalty of currently 5% is levied on the gold declared and sold to the Guyana Gold Board, the sole authorised buyer, by miners or by gold dealers in the hinterland who are licensed by the Gold Board. The sale price is set at the London bullion market rate which is fixed twice a day. The sale price in Guyana apparently assumes bullion-grade purity, 99.5 per cent. The 5 per cent rate applies when the gold price is above US\$ 285 per Troy ounce.

In addition a tax of 2 per cent is levied on the gold sale price in lieu of income tax for small- and medium-scale miners. Corporations pay 35 per cent on taxable income. In November 2014, miners were claiming that the break-even price was US\$ 1400/ounce. If miners can show a tax identification number (TIN) and that their taxes are paid up to date, they may be eligible for a variety of fiscal concessions through the government investment agency GO-Invest (<http://goinvest.gov.gy/sectors/mining/>). When the gold price is significantly higher than the break-even price, as it was during 2011–2013, the excess profit is captured almost entirely by the miners and the landlord rentiers (who demand traditionally a tribute of around 10 per cent paid in raw gold and enforced by armed 'rangers'). Brazilian miners working in Guyana, allegedly often without work permits, may be charged around 20 per cent by the rentiers.

An excess profit of some US\$ 200/ounce was being obtained during the three years 2011–2013 of high gold prices. The Government could have taken the opportunity to configure a sovereign wealth fund from an extra tax on excess profits. In this case, taking a conventional 50/50 split of the excess profit, a sovereign wealth levy could have raised 50 per cent of US\$ 200/ounce × 1.3 million Troy ounces = US\$ 128 million. And this is not counting the 15,000 ounces per week which the Government has estimated is smuggled out of Guyana (Section 5 above).

### 12.4. *Preventing insider trading*

the current (late 2015/early 2016) forensic audit of the GGMC, together with Walrond et al.'s management and systems review of the GGMC in late 2014/early 2015 show how the restriction of what should be public information has encouraged the growth of insider trading. Restriction on public information was typical of the centralist approach to government of the previous PPP/C political administration. Implementation of article 146 of the *National Constitution* 1980/2003—the citizens' right to information about

government – would ensure that the location and mineral quality of areas opened for small- and medium-scale artisanal mining would have been fully publicised, allowing open and equitable auctioning of such areas.

**Appendix A.**

Summary of payments made to Wayne Vieira by StrataGold Guyana Inc. (2005–2011, US \$).

Source: Boyle (2011).

Date	Item	cash payments
10-Jun-04	on signing the agreement	150,000
Dec-04	six months from the signing date of the agreement	150,000
05-Jun	12 months from the signing date of the agreement	150,000
Dec-05	18 months from the signing date of the agreement	150,000
Jun-06	24 months from the signing date of the agreement	150,000
04-Jul-07	on signing of the Amendment to the Agreement	250,000
Jul-08	12 months from the Amendment to the Agreement	250,000
26-Mar-09	on signing of the Amendment to the Agreement	27,000
1 April-31 December 2009	\$6000/month	54,000
1 January-31 December 2010	\$6000/month	72,000
1 January-31 July 2011	\$6000/month	72,000
31-Aug-11	cash payment	90,000
<b>Total</b>		<b>1,565,000</b>

Payments in common shares		
10-Jun-04	on signing the agreement – 300,000 common shares issued	61,500
05-Jun	12 months from the signing date – 250,000 common shares issued	82,629
Jun-06	24 months from the signing date – 150,000 common shares issued	219,935
04-Jul-07	36 months from the signing date – 100,000 common shares issued	62,623
<b>Total</b>		<b>426,687</b>

Payments in purchase warrants		
10-Jun-04	on signing the agreement – 200,000 share purchase warrants issued	25,920
05-Jun	12 months from the signing date – 100,000 share purchase warrants issued	18,700
Jun-06	24 months from the signing date – 100,000 share purchase warrants issued	59,800
<b>Total</b>		<b>104,420</b>

**References**

AP—Associated Press. (2012, January 25). Guyana to target corruption amid gold mine boom. Associated Press. Retrieved from <http://news.yahoo.com/guyana-target-corruption-amid-gold-mine-boom-171841897.html>.  
 APA—Amerindian Peoples Association. (2015, April 21). Re: Vital REDD+ Readiness activities still not carried out satisfactorily in Guyana. Retrieved from [https://](https://www.forestcarbonpartnership.org/sites/fcp/files/2015/April/AP%20-%202021%20April_APA%20letter%20to%20FCPF%20Carbon%20Fund%20docx%20final.pdf)

[www.forestcarbonpartnership.org/sites/fcp/files/2015/April/AP%20-%202021%20April\\_APA%20letter%20to%20FCPF%20Carbon%20Fund%20docx%20final.pdf](http://www.forestcarbonpartnership.org/sites/fcp/files/2015/April/AP%20-%202021%20April_APA%20letter%20to%20FCPF%20Carbon%20Fund%20docx%20final.pdf).  
 Boyle, J.L., 2011. Addendum Amending Application for Prospecting Licence. Mining District No. 5 North West. StrataGold Guyana Inc., Vancouver, British Columbia.  
 Bridge, G., 2007. Acts of enclosure: claim staking and land conversion in Guyana's gold fields. In: Heynen, N., McCarthy, J., Prudham, S., Robbins, P. (Eds.), *Neoliberal Environments: False Promises and Unnatural Consequences*. Routledge, New York, NY, pp. 74–86.  
 Bulkan, A., 2009. Ancient burial grounds: shifting villages & resource-extractive industries: navigating the complexities of proving indigenous land rights in the commonwealth caribbean. *Caribb. Law Rev.* 19, 1–30.  
 Bulkan, A., 2011. From instrument of empire to vehicle for change: the potential of emerging international standards for indigenous peoples of the Commonwealth Caribbean. *Commonw. Law Bull.* 37 (3), 463–489.  
 Bulkan, A., 2012. Disentangling the sources and nature of indigenous rights: a critical examination of common law jurisprudence. *Int. Comp. Law Q.* 61, 823–853.  
 Bulkan, A., 2014a. *The Survival of Indigenous Rights in Guyana*. University of Guyana, Georgetown, Guyana.  
 Bulkan, J., 2014b. Forest grabbing through forest concession practices: the case of Guyana. *J. Sustain. For.* 33, 407–434. doi:<http://dx.doi.org/10.1080/10549811.2014.899502>.  
 Bulkan, J., 2014c. REDD letter days: entrenching political racialization and State patronage through the Norway-Guyana REDD-plus agreement. *Soc. Econ. Stud.* 63 (3,4), 249–279.  
 Bulkan, J., 2016. 'Original lords of the soil'? Amerindian rights and the expansion of State power in Guyana. *Environ. Hist.* 22 (3) .  
 Bulkan, J., Palmer, J.R., 2008. Breaking the rings of forest corruption: steps towards better forest governance. *For. Trees Livelihoods* 18, 103–131. <http://www.illegal-logging.info/uploads/BulkanPalmer2008.pdf>.  
 CI-Conservation International Guyana, Projekt Consult, & WWF. (2013). *Guyana's extractive industry sector (EIS): a synopsis of issues and recommendations for the mining sector as a sustainable element of Guyana's Low Carbon Development Strategy (LCDS)* (p. 69). Georgetown, Guyana : Conservation International Guyana, Projekt Consult, WWF.  
 Chabrol, D.S., (2012, December 4). Origin of gold stolen in Curacao unravelling. Demerara Waves. Georgetown, Guyana. Retrieved from <https://guyaneseonline.wordpress.com/2012/12/05/origin-of-gold-stolen-in-curacao-unravelling/>.  
 Clifford, M.J., 2011. Pork knocking in the land of many waters: artisanal and small-scale mining (ASM) in Guyana. *Resour. Policy* 36 (4), 354–362. doi:<http://dx.doi.org/10.1016/j.resourpol.2011.09.004>.  
 Colchester, M., 1997. *Guyana, Fragile Frontier: Loggers, Miners and Forest Peoples*. London: Latin American Bureau. Kingston, Jamaica; Ian Randle Publishers. ISBN 976-8123-22-2.  
 Colchester, M., La Rose, J., James, K., 2002. Mining and Amerindians in Guyana. Final report of the APA/NSI project on 'Exploring Indigenous perspective on consultation and engagement within the mining sector in Latin America and the Caribbean. Ottawa, ON: The North-South Institute. Available at: [www.nsi-ins.ca](http://www.nsi-ins.ca). Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.203.494&rep=rep1&type=pdf>.  
 Dal Bó, E., 2006. Regulatory capture: a review. *Oxf. Rev. Econ. Policy* 22 (2), 203–225.  
 Dooley, K., Griffiths, T., 2014. *Indigenous Peoples' Rights, Forests and Climate Policies in Guyana: a special report*. Moreton-in-Marsh, England : Amerindian Peoples Association and Forest Peoples Programme.  
 Forte, J., 1990. The case of 'The barama river caribs of Guyana restudied. *Soc. Econ. Stud.* 39 (1), 203–217.  
 Forte, J., 1996. *Thinking About Amerindians*. Demerara Publishers Ltd., Georgetown.  
 Forte, J., 1997. Mining in Guyana and its impact on Amerindian communities in the Upper Mazaruni District. In: Williams, P.E., Parry, J.T., Eden, M.J. (Eds.), *Land Use, Land Degradation and Land Management in Guyana*. Commonwealth Geographical Bureau, London, pp. 68–83.  
 Forte, J., 1998. Impact of the gold industry on the indigenous peoples of Guyana. In: Canterbury, Dennis (Ed.), *Guyana's Gold Industry: Evolution, Structure, Impacts & Non-Wage Benefits*. University of Guyana, Georgetown, Guyana, pp. 71–96 *Transition Special Issue* 27–8.  
 Forte, J., 1999. Karikuri: the evolving relationship of the Karinya people of Guyana to gold mining. *New West Indian Guide/Nieuwe West-Indische Gids* 73 (1 & 2) 59–82.  
*Amerindian Testimonies*. In: Forte, J., Melville, I. (Eds.), Boise State University Press, Boise.  
 Gaskin, R., (2016, January 29). Ten miners control over 5000 small claims. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2016/opinion/letters/01/29/ten-miners-control-5000-small-claims/>.  
 GGMC—Guyana Geology and Mines Commission, 2008. *Guyana mining industry 2007* (p. 41). Georgetown, Guyana: Guyana Geology and Mines Commission.  
 GGMC—Guyana Geology and Mines Commission, 2011. *Guyana Geology and Mines Commission Annual Report 2011* (p. 45). Georgetown, Guyana: Guyana Geology and Mines Commission.  
 GGMC—Guyana Geology and Mines Commission, 2012. *Guyana Geology and Mines Commission Annual Report 2011* (p. 64). Georgetown, Guyana: Guyana Geology and Mines Commission.  
 Gildarie, L., (2012, May 16). Corruption in gold mining sector comes under scrutiny. *Kaieteur News*. Georgetown, Guyana. Retrieved from <http://www.kaieteurnewsonline.com/2012/05/16/corruption-in-gold-mining-sector-comes-under-scrutiny/>.

- GLSC—Guyana Lands and Surveys Commission, 2013. Guyana National Land Use Plan. Georgetown, Guyana: Guyana Lands and Surveys Commission.
- Goolsarran, A., (2015, December 14). Those allegations against the Chairman of the GGMC and the Commission's response. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/features/12/14/allegations-chairman-ggmc-commissions-response/>.
- Government of Guyana, 1996a. Environmental Protection Act (cap. 20:05). Georgetown.
- Government of Guyana, 1996b. National Development Strategy 1996–1997. Ministry of Finance, Georgetown.
- Government of Guyana, 2000. National Development Strategy 2001–2010. Ministry of Finance, Georgetown.
- Grut, Mikael, John, A., Gray, Nicolas, Egli, 1991. Forest pricing and concession policies: managing the high forests of West and Central Africa. World Bank Technical Paper number 143, Africa Technical Department series. Washington DC: World Bank.
- Guyana Chronicle, (2016, January 16). Landlordism, corruption and exploitation . . . –small miners tell about problems in mining industry. <http://guyanachronicle.com/landlordism-corruption-exploitation-small-miners-tell-about-problems-in-mining-industry/>.
- Guyana Forestry Commission and INDUFOR, 2013. Guyana REDD+ Monitoring Reporting & Verification System (MRVS) Year 3 interim measures report. 1 January 2012 to 31 December 2012. Version 3. Guyana Forestry Commission, Georgetown.
- Guyana Ministry of Finance, 2015. Guyana. Mid-year report 2015. Sessional Paper No. 2 of 2015. Eleventh Parliament of the Cooperative Republic of Guyana under the Constitution of Guyana. First session 2015. Georgetown, Guyana: Ministry of Finance. Retrieved from <http://www.finance.gov.gy/images/Docs/Mid%20Year%20Reports/Mid%20Year%202015.pdf>.
- Guyana Office of the President, 2009. Transforming Guyana's economy while combating climate change. A low-carbon development strategy. Georgetown: Office of the President.
- Guyana Times, (2014, June 4). Govt to crack down on illegal gold trading . . . measures to be implemented to increase gold declarations. *Guyana Times*. Georgetown, Guyana. Retrieved from <http://www.guyanatimesgy.com/2014/06/04/govt-to-crack-down-on-illegal-gold-trading/>.
- Harvard Law School, 2007. All that glitters: gold mining in Guyana. The failure of government oversight and the human rights of Amerindian communities (p. 61). Cambridge, Mass.: International Human Rights Clinic, Harvard Law School.
- Her Majesty the Queen in Right of Guyana, 2012. A mining information toolkit for Guyana (p. 114). Canada: Canadian High Commission to Guyana.
- Hilson, G., Vieira, R., 2007. Challenges with minimising mercury pollution in the small-scale gold mining sector: experiences from the Guianas. *Int. J. Environ. Health Res.* 17 (6), 429–441. doi:<http://dx.doi.org/10.1080/09603120701633396>.
- Jordan, W., (2016, January 29). Guyana. Budget Speech. Sessional Paper 1 of 2016. [http://finance.gov.gy/images/uploads/documents/budget\\_2016\\_speech\\_website\\_version\\_3.pdf](http://finance.gov.gy/images/uploads/documents/budget_2016_speech_website_version_3.pdf).
- Josiah, B., 2011. Migration, Mining, and the African Diaspora: Guyana in the Nineteenth and Twentieth Centuries. Macmillan, New York: Palgrave.
- Kaieteur News, (2012, 29 December). 56 of 70 gold bars recovered from Curacao heist . . . Thieves sent 30 to US buyer via FedEx. *Kaieteur News*. Georgetown, Guyana. Retrieved from <http://www.kaieteurnewsonline.com/2012/12/29/56-of-70-gold-bars-recovered-from-curacao-heist-thieves-sent-30-to-us-buyer-via-fedex/>.
- Kaieteur News, (2014, 29 January). Closed Areas Committee biased in allocating mining lands –GWMO. *Kaieteur News*. Georgetown, Guyana. Retrieved from <http://www.kaieteurnewsonline.com/2014/01/29/closed-areas-committee-biased-in-allocating-mining-lands-gwmo/>.
- Kaieteur News, (2015, 10 April). GGMC operates within the ambit of the law, all land allocation is certified and above board. Advertisement, p. 29. *Kaieteur News*. Georgetown, Guyana.
- Kaieteur News, (2015, 8 June). Mining fatalities on drastic rise. *Kaieteur News*. Georgetown, Guyana. Retrieved from <http://www.kaieteurnewsonline.com/2015/06/08/mining-fatalities-on-dramatic-rise-2/>.
- Laing, T., 2015. Rights to the forests: REDD+ and elections: mining in Guyana. *Resour. Policy* 46, 250–261.
- Legg, E.D., Ouboter, P.E., Wright, M.A.P., 2015. Small-scale gold mining related mercury contamination in the Guianas: a review. Prepared for WWF Guianas. Paramaribo, Suriname: WWF Guianas.
- Lemel, H., 2001. Patterns of Tenure Insecurity in Guyana. Land Tenure Center, University of Wisconsin-Madison Retrieved from [http://www.minds.wisconsin.edu/bitstream/handle/1793/21963/49\\_wp43.pdf?sequence=1](http://www.minds.wisconsin.edu/bitstream/handle/1793/21963/49_wp43.pdf?sequence=1).
- Letwiniuk, T., 1996. The Amerindian Act of Guyana: Discussion and Suggested Revisions. Canadian Lawyers Association for International Human Rights, Toronto.
- Lowe, S., 2006. Situation Analysis of the Small-Scale Gold Mining Sector in Guyana. World Wildlife Fund Guianas Regional Program, Georgetown, Guyana p. 87.
- Lowe, S., 2013. Evaluation of Environmental Education and Awareness Programs of the WWF-Guianas in the Small and Medium Scale Gold Mining Industry in Guyana. World Wildlife Fund Guianas Regional Program, Georgetown, Guyana.
- Lowe, S., 2014. Can mining be part of a low-carbon, low-deforestation development strategy? The case of Guyana. *Environ. Sci. Policy Sustain. Dev.* 56 (3), 4–11.
- Lucas, R., (2015, 30 August). Integrity of the revenue collection system called into question. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/features/08/30/integrity-of-the-revenue-collection-system-called-into-question/>.
- Palmer, J.R., Bulkan, J., 2010. Legitimacy of public domain forest taxation, and combatting corruption in forestry. *Int. For. Rev.* 12 (2), 150–164.
- Ram, McRae, 2016. Guyana Gold Board Special Investigation into Financial Operations and Functioning. Ministry of Finance, Georgetown. [http://finance.gov.gy/images/uploads/documents/guyana\\_gold\\_board\\_report.pdf](http://finance.gov.gy/images/uploads/documents/guyana_gold_board_report.pdf).
- Roopnaraine, T., 1995. Shout on the border: minerals: social tension and the frontier. *Archaeol. Anthropol.* 10, 36–42.
- Roopnaraine, T., 1996. Freightened fortunes: gold and diamond mining in the Pakaraima Mountains, Guyana. Doctoral thesis, University of Cambridge.
- Roopnaraine, T., (1996/7). Symbolising value: culture and economy among guyanese gold and diamond miners. *The Cambridge Journal of Anthropology*, vol. 19, No. 3, pp. 22–42.
- Roopnaraine, L., 2000. Politics, economics and environmental policy in Guyana, 1966–1999. *J. Caribb. Hist.* 34 (1 & 2), 178–217.
- Roopnaraine, L., 2002. Wounding Guyana: gold mining and environmental degradation. *Eur. Rev. Latin Am. Caribb. Stud.* 73, 83–91.
- Roopnaraine, L., 2006. Small-scale gold mining and environmental policy challenges in Guyana: protection or pollution. *Can. J. Latin Am. Caribb. Stud.* 31 (61), 115–143. doi:<http://dx.doi.org/10.1080/08263663.2006.10816892>.
- Stabroek News, (2010, April 7). Canadian company signs US\$1 M deal with Lumumba, Walrond. *Stabroek News*. Retrieved from <http://www.stabroeknews.com/2010/archives/04/07/canadian-company-signs-us1m-deal-with-lumumba-walrond/>.
- Stabroek News, (2010, April 26). Mr Lumumba's deals. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2010/opinion/editorial/04/26/mr-lumumba%E2%80%99s-deals/>.
- Stabroek News, (2012, 8 December). Stolen Curacao gold didn't originate here –Persaud. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2012/news/stories/12/08/stolen-curacao-gold-didnt-originate-here-persaud/>.
- Stabroek News, (2012, 29 December). Six held in Curacao over gold heist. *Stabroek News*. Germany. Retrieved from <http://www.stabroeknews.com/2012/news/stories/12/29/six-held-in-curacao-over-gold-heist/>.
- Stabroek News, (2013, 3 February). US asks Curacao to probe gold smuggling – dossier sees 15 years of shipments from Guyana. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2013/news/stories/02/03/us-asks-curacao-to-probe-gold-smuggling-2/>.
- Stabroek News, (2013, 26 May). Crew of gold heist boat in witness protection. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2013/news/stories/05/26/crew-of-gold-heist-boat-in-witness-protection/>.
- Stabroek News, (2015, January 11). Gold miners still to tap billion-dollar fund to go mercury-free. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/01/11/gold-miners-still-tap-billion-dollar-fund-go-mercury-free/>.
- Stabroek News, (2015, 7 February). GGMC monitored 3873 dredges last year. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/02/07/ggmc-monitored-3873-dredges-last-year/>.
- Stabroek News, (2015, 7 April). Absences at GGMC board meetings may be delaying decisions –review – cites tension with Natural Resources Ministry. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/04/07/absences-at-ggmc-board-meetings-may-be-delaying-decisions-review/>.
- Stabroek News, (2015, 14 June). Scene of deadly mining pit collapse has been at centre of two-year court battle – plaintiff frustrated. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/06/14/scene-of-deadly-mining-pit-collapse-has-been-at-centre-of-two-year-court-battle/>.
- Stabroek News, (2015, 13 July). Rules should be framed by NIS to govern workers in the mining industry. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/opinion/letters/07/13/rules-should-be-framed-by-nis-to-govern-workers-in-the-mining-industry/>.
- Stabroek News, (2015, 14 August). Walrond Committee probe unlikely to end disregard for human life in mining sector –miner. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/business/08/14/walrond-committee-probe-unlikely-to-end-disregard-for-human-life-in-mining-sector-miner/>.
- Stabroek News, (2015, August 27). Gov't cracking down on rampant gold smuggling –Trotman. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/08/27/govt-cracking-down-on-rampant-gold-smuggling-trotman/>.
- Stabroek News, (2015, 3 September). Visas were revoked for suspected gold smugglers earlier this year. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/09/03/visas-were-revoked-for-suspected-gold-smugglers-earlier-this-year/>.
- Stabroek News, (2015, 19 October). Tax dodging miners won't benefit from fuel ease. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/10/19/tax-dodging-miners-wont-benefit-from-fuel-ease/>.
- Stabroek News, (2015, 4 December). GGDMA urges tax amnesty so miners can access exemptions. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2015/news/stories/12/04/ggdma-urges-tax-amnesty-miners-can-access-exemptions/>.
- Stabroek News, (2016, March 16). Miners group rejects claim 15,000 ozs gold being smuggled weekly. *Stabroek News*. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2016/news/stories/03/16/miners-group-rejects-claim-15000-ozs-gold-being-smuggled-weekly/>.

- [www.stabroeknews.com/2016/news/stories/03/16/miners-group-rejects-claim-15000-ozs-gold-smuggled-weekly/](http://www.stabroeknews.com/2016/news/stories/03/16/miners-group-rejects-claim-15000-ozs-gold-smuggled-weekly/).
- Stabroek News, (2016, April 28). Poor handling of gold stocks cost over \$10b -forensic audit -political interference, fraud seen. Stabroek News. Georgetown, Guyana. Retrieved from <http://www.stabroeknews.com/2016/news/stories/04/28/poor-handling-gold-stocks-cost-10b-forensic-audit/>.
- Strategic Environmental Advice, (June 2013). Full version of draft costed strategic framework for the Ministry of Natural Resources and the Environment 2013–2018. Georgetown, Guyana; Ministry of Natural Resources and the Environment. [http://www.nre.gov.gy/PDF/Costed%20Strategic%20Framework%20for%20the%20MNRE%20V5\\_final.pdf](http://www.nre.gov.gy/PDF/Costed%20Strategic%20Framework%20for%20the%20MNRE%20V5_final.pdf).
- Thomas, C.Y., 2009. Too big to fail: a scoping study of the Small and Medium Scale gold and diamond mining industry in Guyana. Draft. Georgetown, Guyana.
- Trotz, A., Roopnaraine, T., 2009. Angles of vision from the coast and hinterland of Guyana. *Anthropologies of Guayana: Cultural Spaces in Northeastern Amazonia*. University of Arizona Press, Tucson, pp. 235–253.
- US Department of State, 2013. 2013 Investment Climate Statement—Guyana (p. 8). Retrieved from <http://www.state.gov/e/eb/rls/othr/ics/2013/204653.htm>.
- Walrond, G.W., Heesterman, L.J.L., Goolsarran, J., 2015. Guyana Geology and Mines Commission Management and Systems Review. Inception Report (Mines Division, Land Management Division, Geological Services Division). Georgetown, Guyana.
- Weaver, J.C., 2006. Acquisition: uprooting Native Title, The Great Land Rush and the Making of the Modern World, 1650–1900. McGill-Queens University Press, Toronto, pp. 1650–1900.
- Whiteman, G., 2004. Forestry, gold mining and amerindians: the troubling example of samling. In: Guyana Bird, F., Herman, S.W. (Eds.), *International Businesses and the Challenges of Poverty in the Developing World: Case Studies on Global Responsibilities and Practices*. Palgrave Press, pp. 181–205.