



# The Republic of Burundi

## *Final Report*

Transparency in  
Revenues from  
Artisanal and Small-  
Scale Mining of Tin,  
Tantalum, Tungsten  
and Gold in Burundi



WORLD BANK GROUP



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# Acronyms

'3Ts'	Tin, Tungsten and Tantalum
APE	<i>Agence de Promotion des Exportations</i>
ASM	Artisanal and Small-Scale Mining
ATM	African Tantalite Mining
BMS	Burundi Mining Supply
BRB	<i>Banque de la République du Burundi</i>
CFSP	Conflict-Free Smelter Program
DGGM	<i>Direction Générale de la Géologie et des Mines</i>
DRC	Democratic Republic of Congo
EICC	Electronic Industry Citizenship Coalition
EITI	Extractive Industries Transparency Initiative
GeSI	Global e-Sustainability Initiative
GIZ	<i>Gesellschaft für Internationale Zusammenarbeit</i> (German Development Agency)
GLR	Great Lakes Region
ICGLR	International Conference on the Great Lakes Region
ITRI	Global Tin Industry Association (formerly International Tin Research Institute)
iTSCi	ITRI Tin Supply Chain Initiative
OBR	<i>Office Burundaise des Recettes</i>
OECD	Organisation for Economic Co-operation and Development
MEM	<i>Ministère de l'Energie et des Mines</i>
MoU	Memorandum of Understanding
RCM	Regional Certification Mechanism
RINR	Regional Initiative against the Illegal Exploitation of Natural Resources
SEC	Securities and Exchange Commission
SECOMIB	<i>Société d'Exploitation et de Commercialisation des Minerais du Burundi</i>
TAMINCO	Tantalum Mining Company
TIC	International Tantalum Niobium Study Centre
UN	United Nations
WMP	Wolfram Mining and Processing Ltd



# Executive Summary

**B**urundi has a wide range of mineral deposits of which tin, tantalum and tungsten ores, along with gold, are its primary mineral exports. Burundi's geological endowment also includes nickel, rare earths, vanadium, and construction materials. The majority of mineral extraction is carried out by artisanal and small-scale mining<sup>1</sup> (ASM) which is officially structured through cooperatives. Tin, tantalum, tungsten (from the minerals cassiterite, tantalite and wolframite and often referred to as the '3Ts') and gold are the primary minerals mined and exported.

**Artisanal mining is an important rural livelihood for up to 34,000 people.** Some 6,000–7,000 men and women are working in mines producing the 3Ts. Of these, around 75% are miners with the other quarter engaged in mineral

washing, transporting and other tasks. It is estimated that there are a further 14,000–27,000 artisanal gold miners. With each miner probably supporting approximately five dependents, the study estimates that some 85,000 to 160,000 individuals may depend on ASM as a key household income source in Burundi. Approximately half of the country's 3Ts mine sites are operating without licenses.

**Burundi's 3Ts sector is underperforming with poor levels of production being recorded in 2014.** Of total mine production, wolframite accounts for the largest proportion (38%) of the minerals mined. Tantalite accounts for one third (30%) of recorded mine production but is also present in the significant quantities of 'mixed' minerals which are produced in the mines. These mixed minerals are only separated at export level. At export, tantalite accounts for approximately half of mixed minerals which increases overall tantalite production to around 38%. Cassiterite production is at a very low level with no official exports in 2013 or 2014. With international prices for tin very low, there is limited immediate prospect of improvement. The general underperformance of these minerals can be attributable to several issues including: international reluctance to purchase wolframite from the Great Lakes Region (GLR) due to the relatively high price of traceable ore compared to wolframite from sources outside the GLR; lack of a mineral traceability system in Burundi until mid-2014; the limited number of mines operating in the formal system from which the formal market could source; and significant tax increases which the Government introduced in 2014 and which dissuaded business registration.

**Mineral pricing is a complex process which can be affected by a range of factors as well as**

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1. Artisanal and Small-Scale Mining refers to mining by individuals, groups, families or cooperatives with minimal or no mechanization, often in the informal (illegal) sector of the market. In some countries a distinction is made between 'artisanal mining' that is purely manual and on a very small scale, and 'small-scale mining' that has some mechanization and is on a larger scale. The local definitions vary from country to country according to the macroeconomic situation, the geological framework, the mining history and the legal conditions. Nevertheless, ASM is characterized by a number of conditions: lack of or limited use of mechanization, and a lot of physically demanding work; lack of investment in technical support such as geological prospecting; low level of occupational safety and health care; poor qualification of personnel at all levels of the operation; inefficiency in exploitation and processing of mineral production (low recovery value); exploitation of marginal and/or very small deposits, which are not economically exploitable by mechanized mining; low level of productivity; low level of salaries and income; periodic operation by local peasants by season or according to the market; lack of social security; insufficient consideration of environmental issues; and chronic lack of working and investment capital. Definition adapted from the final report of the Mining, Minerals, and Sustainable Development Project (MMSD).



**international prices.** These factors include, but are not limited to, local labor costs, mineral grade, the relationship between the producer and the buyer, goods and services provided to the miner, the remoteness and accessibility of the site, and local market conditions such as competitiveness. Access to information on grade is limited and miners are price-takers with little bargaining power.

**Clarity on the level of gold being produced in Burundi remains problematic.** Unlike the 3Ts, there is no traceability system in place for gold. In 2012 and 2013 the country reported over 2 tonnes of gold being exported per annum however reported exports fell significantly in 2014 to around 650kg. Based on interviews, the increased taxes which were introduced in 2014 were the major factor in this drop as legal trade was disincentivized and few comptoirs were registered. Analysis shows that the Government of Burundi was, in 2012 and 2013, losing significant revenue on gold production. No gold revenues are reported for 2014. However it should be noted that some estimates of loss of state revenues through illegal gold trading are misleading. In some reports the market value of the gold produced (or estimated to be produced) is described as 'lost revenue' to the State when, in fact, the actual revenues due are those prescribed under The Mining Code and its accompanying legislation.

**Reforms are presently underway by the Government of Burundi to improve transparency in the minerals sector which should also augment the tax revenue generated by ASM.** This should assist the Government to arrive at a better articulation of the economic value of ASM. New Mining Regulations which are in force for 2015 repeal many of the most stringent taxes and should contribute to improved revenue figures this year. The Government is simultaneously implementing the Extractive Industries Transparency Initiative (EITI) and the ITRI Tin Supply Chain Initiative (iTSCi). EITI focuses on collecting and collating data about the scale, scope and taxation of the extractives sector while iTSCi is a due diligence and mineral traceability system which

enables Burundi to demonstrate that its 3T production is not connected to conflict in the Great Lakes Region and thereby to have access to international mineral markets. iTSCi involves a multi-step mineral tagging and data collection process which, in this study, is being used as the basis for calculating revenues generated by the sector.

**Informal 'taxation' of miners is relatively low in Burundi.** Typically the artisanal mining sector is subject to informal 'tax' regimens with miners and traders being called upon to make payments to a wide range of actors. The level of such payments is reported to be relatively low in Burundi with the majority of miners not reporting informal payments and for those that were, it was mainly to buy mining equipment. Cooperatives and comptoirs, however, are more frequently required to make informal payments.

**Burundi is undergoing a period of political insecurity in relation to the 2015 elections.** This insecurity was causing significant disruption to the mining sector, both in terms of production and export. This insecurity threatens Burundi's 'conflict free' status and, if the situation deteriorates further, there is a real risk that the international market will shun Burundian 3Ts as being too high risk. The over-riding recommendation, therefore, must be for the Burundian Government to take all necessary steps to restore stability and to maintain the country's 'conflict free' reputation.

**Recommendations are made for general improvements in the sector** including increasing the speed of delivery of licenses which, coupled with the more favorable taxation regime promulgated by the 2015 Regulations, should help to stimulate legal production and trade. Other suggestions include promotion of diversification when certain minerals are in downturn, promoting investment through improved business stimulants, competitive pricing both locally and regionally, and leveraging the opportunities presented by both EITI and iTSCi to promote the Burundian mineral sector. All of this should be considered within a strategy to improve ASM production efficiency, safety and access to finance.

**Improvements in the gold sector are where the Burundian Government stands to make the greatest gains** though this is complex to achieve and needs a very practical strategy which is grounded in market and trade realities. Taxation is one element of this but should not be considered in isolation. Engagement with the existing market and finding incentives for formalization is essential.

**The Government of Burundi should showcase its efforts to improve transparency and traceability.** The next step will be to use EITI and iTSCi standards to help to meet the basic needs of artisanal mining communities and to contribute to formalization. This will promote positive perceptions and acceptance of both systems to the benefit of Burundi's mineral sector and national revenues.







# 1

## Artisanal and Small-Scale Mining (ASM) and Its Significance in the Burundian Economy

### 1.1 The Macro Context

#### 1.1.1 Mining as Part of the Solution Towards Economic Diversification in the Country

**Burundi is one of the smallest countries, most densely populated, and poorest countries in Africa.** It has an area of 27,834 square kilometers and just 11 million inhabitants. Around three quarters of the population live in poverty, and 90% of the population is dependent on subsistence farming. Food supplies are inadequate, as is medical care. The situation is exacerbated by Burundi's high population growth of 3.1% per annum.<sup>2</sup>

**Burundi is enjoying moderate economic growth since 2006, but poverty remains widespread.** GDP growth averaged 4.5% from 2003 to 2013, 1.5% above the population growth. The share of the population deprived of basic food needs declined by 6 percentage points between 2006 and 2012 but remains high at 60%. Inequalities between the capital Bujumbura and the rest of the country are still high but decreasing despite faster economic growth in urban areas where services are concentrated. The share of the population with consumption below the basic needs stood at 61.5% in rural in 2012 versus 41% in Bujumbura. Higher rural-urban migration explains the decreasing gap between Bujumbura and the rural (35 percentage points in 2006 to 20 percentage points in 2012). Per capita gross national income more than doubled between 2005 (US\$130) and

2013 (US\$280) in nominal terms, but the country is standing at the bottom of the world ranking.

**The country is working on these two weaknesses to unlock its growth and poverty reduction potential.** Since 2010, external grants are declining in share of GDP, falling from 23.4% in 2010 to 14.7% in 2014. Despite donors' commitment in the 2012 Consultative Group (CG) conference, foreign aid is expected to remain below 15% in the next three years (2015–2017). The country has to find an alternative and complementary growth engine, which should be exports, while accelerating the provision of public goods and services. Since 2009, the government has initiated a second generation of reforms to accelerate growth and poverty reduction, with the creation of the Burundi Revenue Authority (OBR) to improve domestic revenue mobilization, the entry in East African Community (EAC) to deepen regional integration, and the reforms of the business environment through the Doing Business Report and accompanying index. These reforms have had positive impact, particularly in the tourism and banking sectors, but the overall outcomes are below the authorities' expectations. Private investment increased recently but foreign direct investment remained very low.

**Burundi's main natural resources and exports are coffee, tea, and minerals.** Agriculture accounts for just over 30% of GDP and employs more than 90% of the population. Burundi's primary exports are coffee and tea, which account for approximately 90% of foreign exchange earnings, though exports are a relatively small share

2. [www.giz.de](http://www.giz.de).

of GDP. Ores and concentrates of base metals account for approximately 10% of commodity exports.<sup>3</sup> Thus Burundi's export earnings and its ability to pay for imports rests primarily on weather conditions and international coffee and tea prices. Its undiversified economy makes it vulnerable to external shocks including climatic risks, exchange rate and commodity prices.

**For Burundi, the transformation of its mineral resources into productive capital poses several challenges.** Burundi has attracted some levels of foreign direct investment (FDI) in the mining sector but actual outcomes are well below the country's potential. The establishment of a regulatory framework that meets international standards is essential for foreign investors. Ensuring revenue transparency will further enhance development outcomes from mineral extraction with the recent adhesion to EITI represents a clear step toward improved transparency in the sector. For sustained economy-wide impact, fiscal and monetary policy will need to adjust to the new context.

### 1.1.2 Geographic Scale and Scope of Burundi's Mining Sector

**Burundi has a wide range of mineral deposits** which include nickel, rare earths, vanadium, gold, tin,<sup>4</sup> tantalum<sup>5</sup> and tungsten.<sup>6</sup> Tin, tantalum and tungsten are often referred to as the '3T's'.<sup>7</sup> At the time of writing, there were 82 3Ts mine sites

3. State of Commodity Dependence 2014. UNCTAD.

4. Tin metal is smelted from cassiterite concentrate. Miners produce cassiterite ore which is processed to cassiterite concentrate for export.

5. Tantalum metal is smelted from tantalite concentrate. Miners produce tantalite ore, which is often called 'coltan' locally. The name 'coltan' comes from an abbreviation of 'colombite-tantalite' meaning an ore which contains both columbium (also called niobium) and tantalite. Tantalite ore is processed to cassiterite concentrate for export.

6. Tungsten metal is smelted from wolframite concentrate. Miners produce wolframite ore which is processed to wolframite concentrate for export.

7. The term '3Ts' is used frequently in this report to refer to production of cassiterite, tantalite and wolframite ore, and export of cassiterite, tantalite and wolframite concentrate.

operational of which 37 were licensed to operate within the formal system. 3Ts and gold are the primary minerals produced. Exploration and development of the Gakara rare earth deposit (a previously operating mine from 1948–1978) has re-started. Gakara is notable for its exceedingly high in-situ grade of bastnaesite and monazite giving rise to claims that it is the richest rare earth deposit in the world. Extraction of construction materials is also an important component of ASM in Burundi including the extraction of clay (for bricks and tiles), kaolin, carbonate rocks (for lime and cement), slate and other large stones (for paving stones), gravel and sand.

**The distribution of known mining areas is shown on Map 1.1.** Gold and the 3Ts are found primarily in the north of Burundi, in the provinces of Cibitoke, Kayanza, Bubanza, Ngozi, Kirundo and Muyinga. They are also found in the province of Ruyigi in eastern Burundi, and recently a cassiterite mining site was established in the province of Gitega.

### 1.1.3 Statistics on Employment, Revenues and Exports

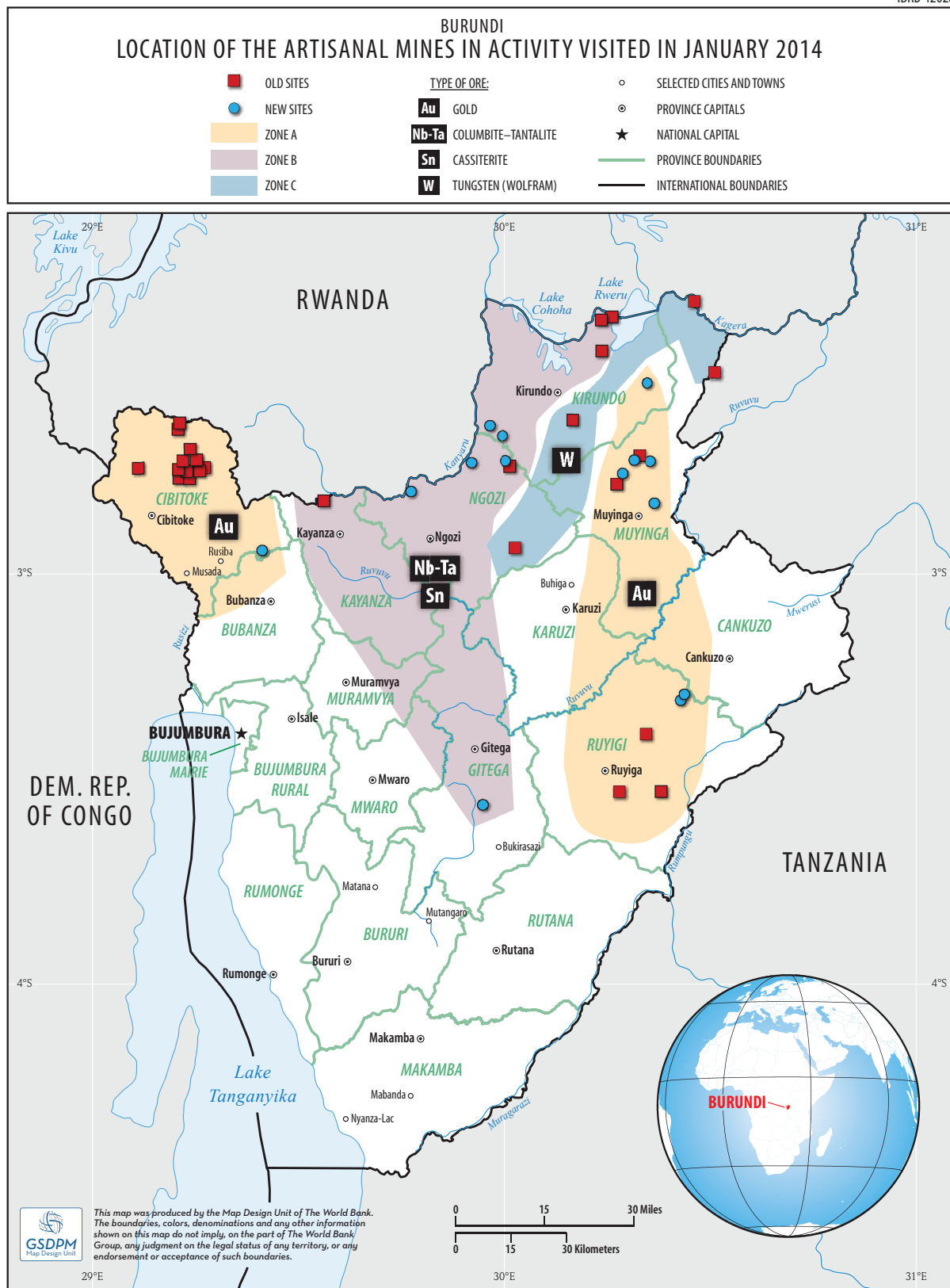
**There is no universal definition of artisanal and small-scale mining (ASM).** However, consensus generally revolves around the following: "mining by individuals, groups, families or cooperatives with minimal or no mechanization, often in the informal (illegal) sector of the market."<sup>8</sup> Distinctions between artisanal and small-scale mining are made in certain countries whereby artisanal refers to pure manual mining whereas small-scale may have fixed installations or use of mechanized equipment. However, the diversity of ASM operations is vast and generalizations are easily contradicted. ASM can be carried out by men, women, youth and children. Worldwide, ASM is often carried out on an informal basis with weak or inappropriate regulatory frameworks that may be poorly enforced. ASM often uses poor health and safety standards and inefficient methods. ASM may also

8. See: <http://pubs.iied.org/pdfs/9268IIED.pdf>.



MAP 1.1

IBRD 42028



be characterized by social challenges including community disruption, environmental damage, child labor, gender inequity and indebtedness.

**ASM is an important rural livelihood in Burundi**, as it is with other countries who have ASM populations. It may be a full time occupation, a supplementary income generating activity, or a seasonal activity complementing income from activities such as agriculture. Both men and women are involved in production, processing, transport and trade of minerals which are sold to local and international businesses for export. At every step in the process, financial transactions occur which have the potential to generate economic activity as well as revenues to the state, however the nature of these transactions is poorly understood and their cumulative value is not quantified.

**Some 6,000–7,000 miners work in 3Ts ASM mines in Burundi.**<sup>9</sup> The exact number of individuals involved in ASM in Burundi is unknown as there is no registration process for miners. The figure of 6,000–7,000 is based on the known number of workers at the 59 mine sites visited in this study (approximately 4,700 total workers) which represented 70% of known 3Ts mines. Around 75% of the workers are miners with the other quarter engaged in mineral washing, transporting and other tasks.

**The number of gold miners may be significantly higher.** Based on export figures for 2012 and 2013 when over 2 tonnes of gold were exported per year, a reasonable estimate might be some 20,000 miners working in gold. However, exports in 2014 were around 650kg which would represent the production of perhaps 7,000 miners.<sup>10</sup> This assumes that export figures are a good

indicator of national production but this may not be the case. Thus providing a reasonably reliable number for the scale of gold ASM as a livelihood is very challenging.

**The true contribution of ASM to the economy often remains obscured.** The total number of individuals employed directly by the 3Ts and gold sectors may therefore be in the region of 14,000–27,000<sup>11</sup> with each one likely to support approximately five family members or dependents. Rare earth minerals and nickel also represent future potential however the scale of their production at present is negligible therefore they do not represent a major employer for artisanal miners. Extraction is also just the first step in the economic chain as transporting, processing, and trading the minerals produced by miners, as well as providing goods and services to the mining sector in general, creates a vast economic web of transactions and tax revenue potential.

## 1.2 The Local Context

### 1.2.1 Organization of ASM in Burundi

**The Ministère de l’Energie et des Mines (MEM) is responsible for the development of the mining sector in Burundi.** Its main tasks in this regard, as defined in Decree No. 100/107 of 17 November 2005, are: (a) the design and implementation of Government policy relating to geology and mining; and (b) the promotion of geological research and the mining industry. Support to mining, and ASM specifically, falls under the purview of the *Direction des Mines et Carrières* (DMC), a sub-branch of the DGGM. The MEM supports the DGGM on policy and legislative matters.

**Burundi enacted a new Mining Code in 2013.** However, at the time of publication of the present study detailed regulations governing the conditions for licensing of cooperatives and *comptoirs* were yet to be issued. In response to the lack of regulations, two Ministerial Ordinances were

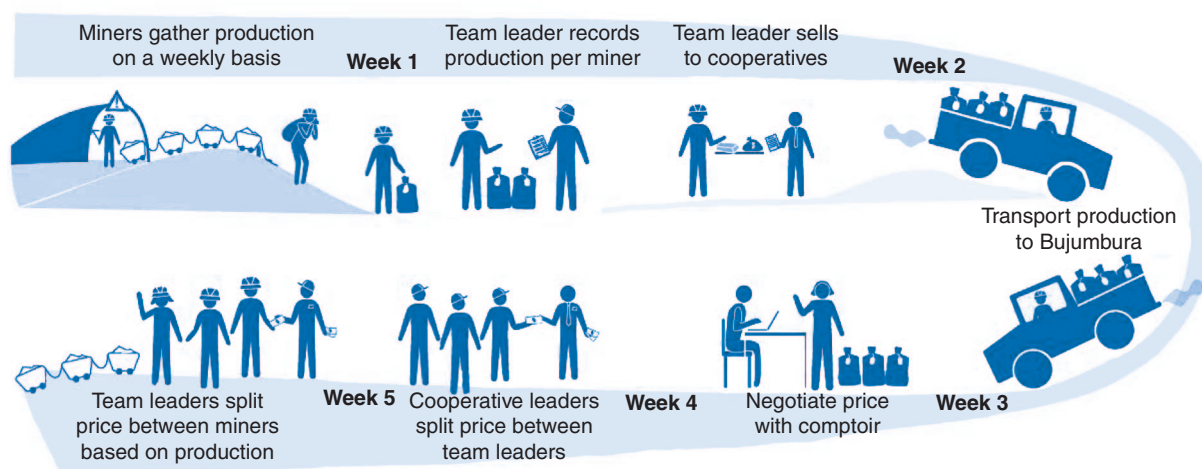
9. The estimate for miners working in 3Ts is based on the field research carried out for this project including census at both formal and informal mines visited plus estimates based on known numbers of cooperatives and their members.

10. The first estimate of number of miners working in gold based on official export figures of 2,000 kg per year, assuming 300 productive mining days and 0.3g produced per miner per day. The second figure is based on official export figures of 650kg assuming 300 productive mining days and 0.3g produced per miner per day. This individual production estimate is based on other studies carried out in the region.

11. This is an estimate based on the assumptions described. No census has been carried out to arrive at this figure.

**FIGURE 1.1:** Relationships and Mineral Flows/Trade in the ASM Sector in Burundi

**Circulation of minerals and funds: cassiterite, tantalite and wolframite**



issued on an interim basis at the end of December 2013. They effectively are abrogated once the full Mining Regulations are completed and adopted by the Government.

**The ASM sector includes many different actors.** The mine may be on land where there is a traditional landowner as well as a mining license holder. Mines need investors who may be formal or may be informal ‘sponsors’ of the operations. The licensee or mine owner may create, or may work with the miners in several different structures as described below. Miners within teams have different functions in terms of site clearance, ore extraction, transport and processing of minerals. Mines are provided with goods and services from machinery maintenance to food catering. All mines have formal or informal security on site. Minerals are transported, processed, traded and exported, all by different actors, middlemen, and service providers who may have casual or complex relationships to each other (see Figure 1.1).

**The ASM sector has three forms of labor organization in Burundi:**

**(a) Cooperatives:** A cooperative is a formal structure responsible for acquiring and managing a mining site and ensuring the equitable distribution of the proceeds from the mine.

Membership of cooperatives is restricted to small groups of individuals which may include the land owner, financiers, mineral buyers and others who create a financial and management structure. In this study, at all the mines visited, 446 cooperative members were counted amongst the 4,726 workers at the various mines putting cooperative membership at around 10% of the mine workforce. The remuneration of co-operative members is calculated based on the site’s productivity and the particular role of the individual. In some co-operatives, a daily food allowance is provided to members, and this forms part of their compensation. In most cases, individuals work for the cooperative on a paid basis without being members of the cooperative and can come and go from one mine site to another. Miners are organized into teams with a leader who collects and records the production on a daily basis.

**There are clear directives on how cooperatives should operate.** Article 94 of the 2013 Mining Code states that: ‘Only mining cooperatives formed under the auspices of private and public companies may obtain a license for artisanal mining. Conditions pertaining to the formation of mining cooperatives and the

issuance of permits and artisanal mining cards are specified by regulation.’ The Code also specifies that ‘Cooperatives can only sell their production at approved comptoirs’ (Article 88) and ‘The conditions pertaining to the approval of comptoirs will be set by regulation’ (Article 97). Cooperatives must register with the Agence de Promotion des Exportations (APE)—the export promotion agency. Cooperatives do not have status as a not-for-profit organization (*Organisation Sans But Lucratif*—ASBL) therefore they are not tax exempt.

**(b) Unstructured operations:** In 2014, 44% of ASM operations in Burundi were informal though by mid-2015 this had changed to 45% formal and 55% informal. The informal operations take two main forms. Some are *family organized operations* in which the resulting gains are usually retained and managed by the head of the family. The other form is *group operations* in which the mine site is considered to belong to the group as a whole, and production is shared out between the members of the group each evening in accordance with their established rules.

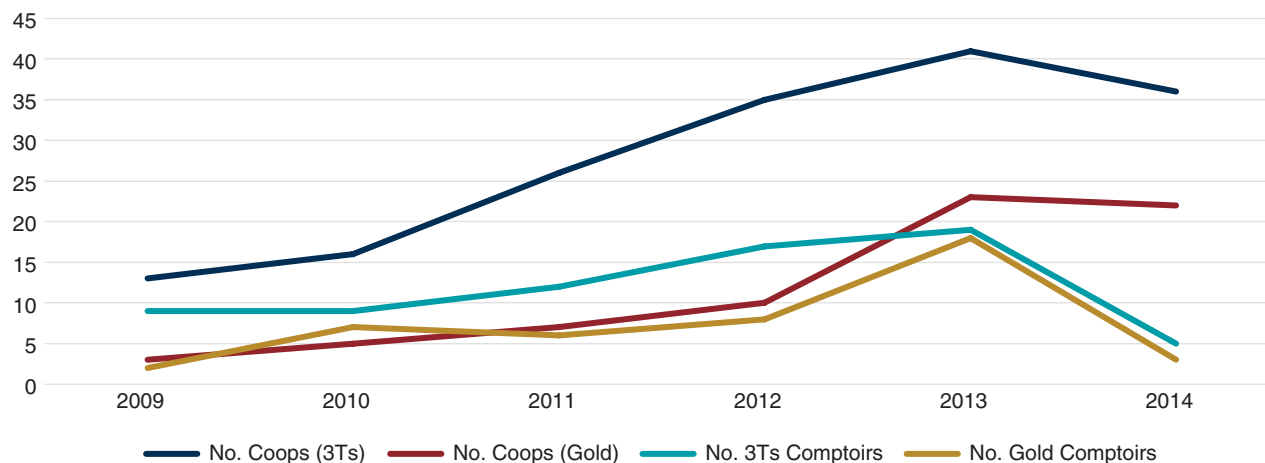
**(c) Small-scale operations:** Only one private company, TAMINCO, is involved in the extraction of the 3Ts in the northern region of Burundi (Kabarore-Kayanza and Busoni-Kirundo). This company purchases production from artisanal miners working on the company’s

concession. These miners are paid by the kilogram. Rainbow Rare Earths Limited is a mining company engaged in the exploration and development of the Gakara rare earth deposit and intends to extract 5,000 tons of ore annually. It is anticipated that all operations at Gakara will use company employees and will not purchase materials from artisanal miners. Both TAMINCO and Rainbow Rare Earths hold industrial mining licenses as there is no small-scale license in Burundi.

**By the end of 2014, 58 cooperatives were either licensed or in the process of obtaining their license.** Twenty-seven mining cooperatives had been granted artisanal mining licenses for extraction of the 3Ts and an additional 11 licenses were granted for artisanal extraction of gold, with a further nine license applications for 3Ts and 11 for gold being processed (see Annex 2).

**Cooperatives can only sell their production at approved comptoirs.** In 2014, there were five *comptoirs* (or traders) licensed for the 3Ts and three *comptoirs* for gold (see Annex 2). The changes in the number of cooperatives and *comptoirs* operating in Burundi since 2009 are shown in Figure 1.2. Two Ministerial Ordinances of 2014 stipulated the fees and taxes to be levied on *comptoirs* which may have been a contributing factor to the reduction in the number of officially registered traders and exporters which was seen that year.

**FIGURE 1.2:** Number of Licensed Cooperatives and Comptoirs in Burundi 2009–2014



### Multiple levels of mineral trade occur locally.

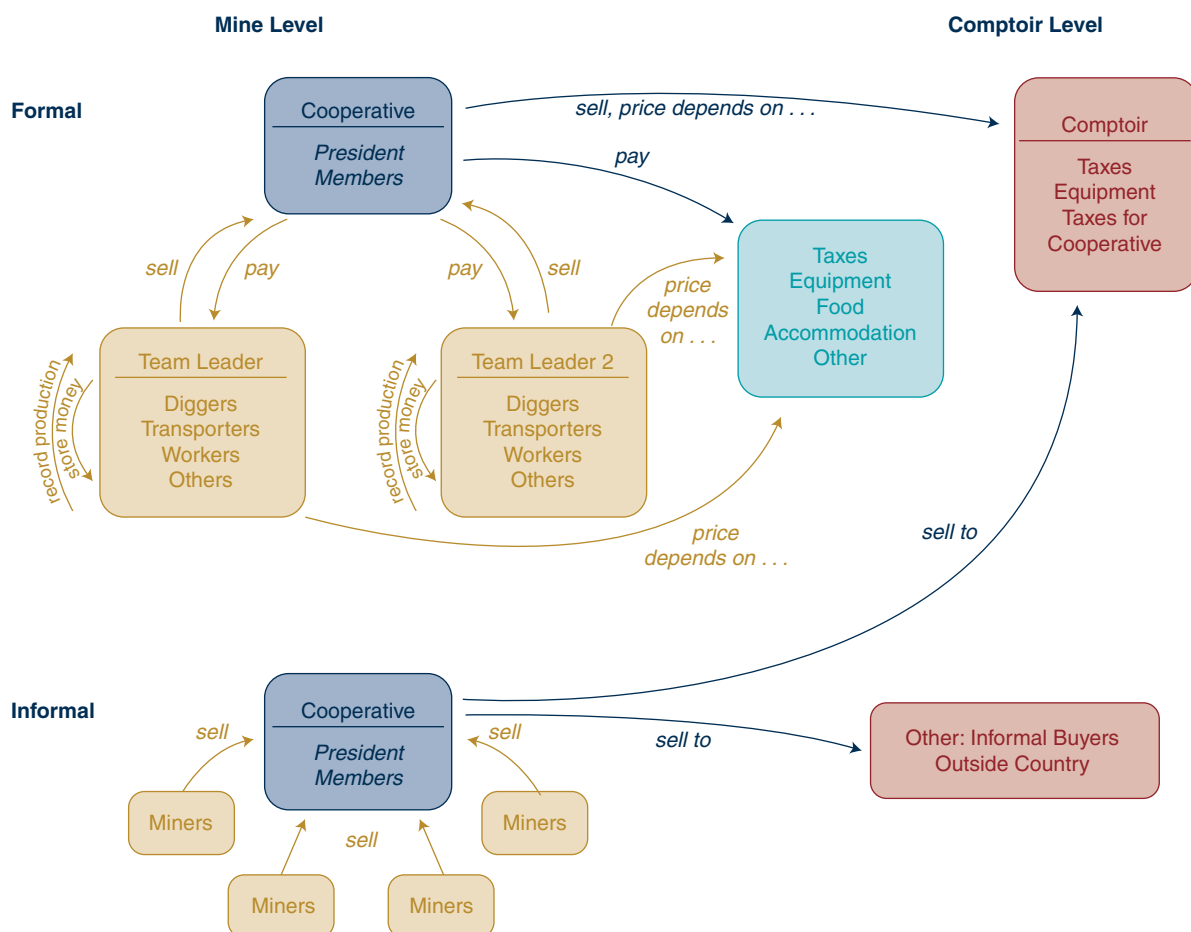
Team leaders generally sell the production of the team to the cooperative on a weekly basis. The cooperative collects production from each team leader, and then brings the production to *comptoirs* in Bujumbura. Negotiation of the price of the minerals depends on: if the cooperative and the *comptoirs* have a pre-set agreement; if the *comptoir* has paid for the cooperative to have its official agreement to operate; if the *comptoir* paid for equipment for the cooperative; the grade of the minerals; and the international market price. Once the negotiation between the *comptoir* and cooperative is finalized, the representative of the cooperative comes back to the mine(s) and pays the team leader(s).

**The amount received by the team members varies.** The amount paid by the cooperative to

the team leaders may depend on the grade of the mineral and whether the cooperative provides any subsidy to the miners (equipment, food, medical aid, etc.). Formal cooperatives usually make a payment to the land owner as well as various official and unofficial taxes or fees applicable to get their artisanal mining permit. These factors affect the price then given to the team leader(s). The team leader then splits the payment between the team members. Usually miners get more money than washers and transporters. Some mineral trade occurs outside the formal system. In that case, team leaders usually do not exist and miners randomly sell their production to a cooperative, who then sells the minerals to informal actors inside or outside Burundi (see Figure 1.3).

**FIGURE 1.3:** Relationships and Mineral Flows/Trade in the ASM Sector in Burundi

#### Mineral Flow Chart





### 1.2.2 Mineral Production and Export of 3Ts

There are various sources of data on mineral production in Burundi:

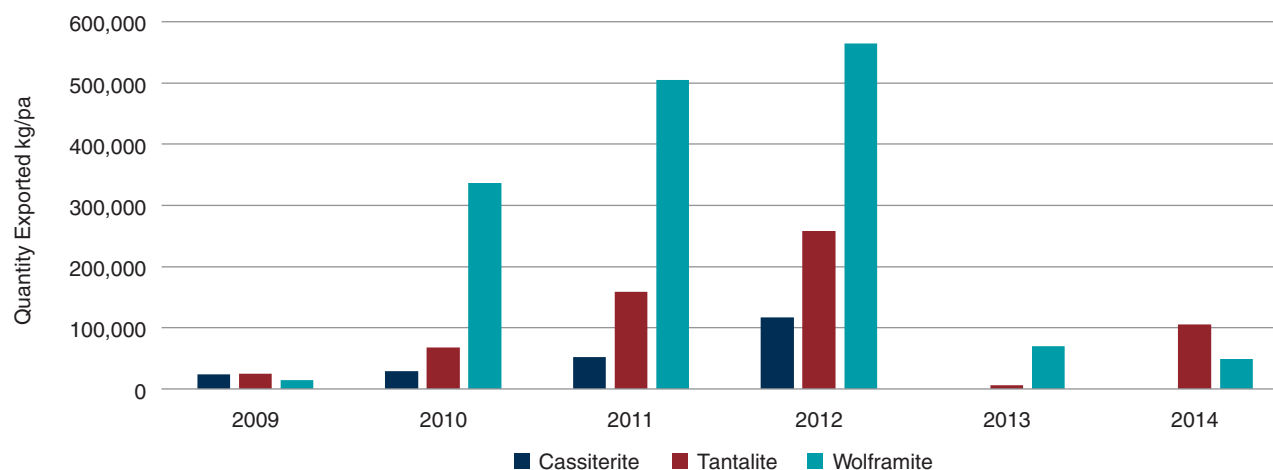
**(a) Official export statistics:** MEM statistics for declared exports of minerals 2009–2014 show some dramatic changes in the 3Ts sector. In general terms, export of cassiterite, tantalite and wolframite concentrate all grew year-on-year from 2009 to 2012, reaching a peak of over 940 tonnes of total 3Ts exported in 2012 (around 78 tonnes per month). However, this changed in 2013, and exports fell off dramatically to under 10% of 2012 levels with only 5.7 tonnes of tantalite and 70 tonnes of wolframite being exported and no reported exports of cassiterite at all. In 2014, the cassiterite situation continued with no exports occurring, while tantalite exports made a recovery (105 tonnes) though wolframite remained at a very low level (49 tonnes). In 2014, average monthly production based on official exports was around 13 tonnes per month (see Figure 1.4).

**(b) Mine level production data from the iTSCi system:** In this system (see Section 2.3.2), data is recorded at several levels, first at the mine when tracking tags are allocated to minerals

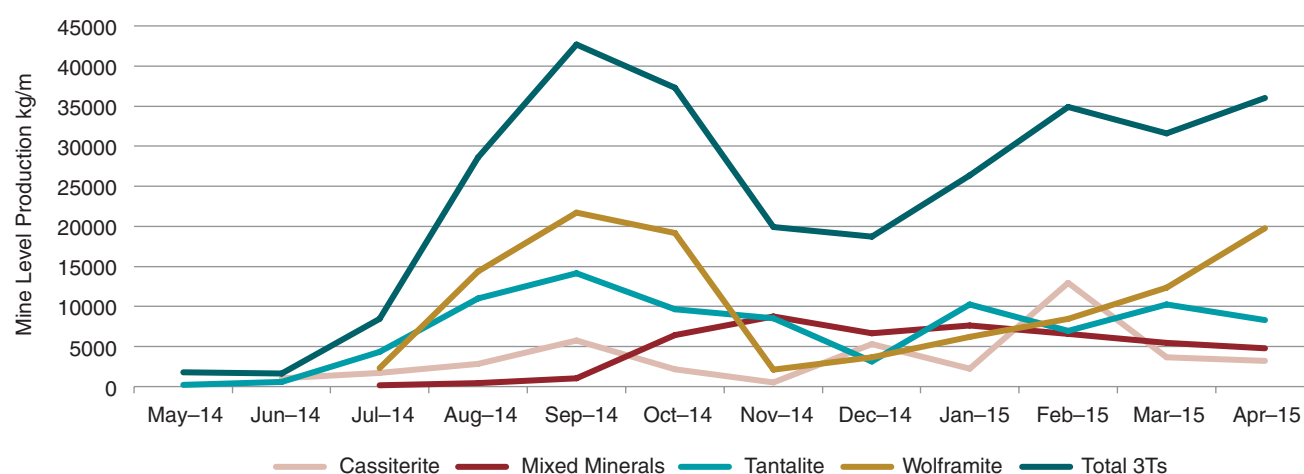
produced by miners before the minerals leave the mine and recorded in a log book by Government agents. Second, data is recorded on entry and departure from mineral depots when the minerals are traded with a further level of tagging and log book entry. Finally, data is recorded in a third log book at export when the minerals enter and leave the comptoirs. iTSCi started up in Burundi in May 2014 and the data from that period to April 2015 is shown in Figure 1.5. Using iTSCi mine-level data, the average monthly production at mine level is 25,000 tonnes per month. However iTSCi is only operational at formal sites (approximately 50%).

**(c) Anecdotal reports from miners:** Production data can also be obtained from actors in the field. 45% of miners report that they produce under 250 of 3Ts per day, with a further 10% reporting producing up to 500g per day (see Figure 1.6). A third of team leaders estimated that the production of their 13-worker teams was less than 3 kg per day (confirming the figure of under 250g per person), while another 30% thought that their team were producing between 3–10 kg per day (closer to the 500g figure). The remaining 30–40% of miners may produce over 1kg per worker per day. However

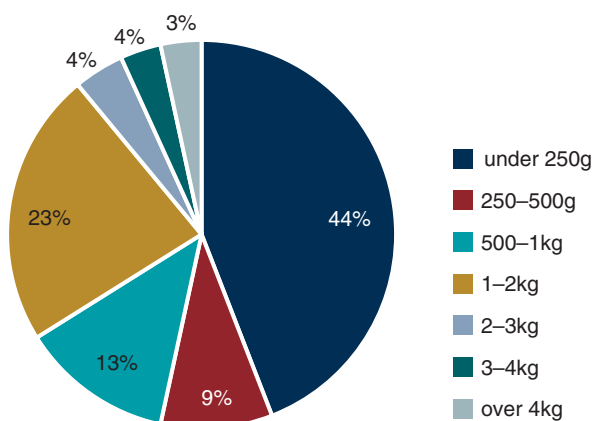
**FIGURE 1.4:** Exports of 3Ts from Burundi 2009–2014



**FIGURE 1.5:** Mine Level Production of 3Ts in Burundi May 2014 to April 2015



**FIGURE 1.6:** Daily Production of 3T Minerals Reported by Miners



extrapolating total production figures based on these reports is of questionable value. There are myriad variables such as: the proportion of the workforce working full time and present on a daily basis; downtime at mines or temporary closure for maintenance work or clearance of overburden; weather conditions; availability of water; availability of equipment; etc. Also, the production of cassiterite

or wolframite is likely to be higher than that of tantalite. Reducing maximum production by a third to allow for these factors, a rough estimate of production could reasonably be around 50 tonnes per month including production from both formal and informal sites.

**There are inconsistencies in 3Ts production data reporting.** Contributing factors that help to explain these differences include:

- The scale of coverage of mineral traceability is limited.** The iTSCi system started slowly in a small number of mines which grew over time, therefore comparison between early and later months is not pertinent. Further, iTSCi does not extend to all the active mines, only the ones which operate under the formal system. By the end of the period shown in Figure 1.5, approximately half of all mines were operating formally therefore the data only represents perhaps half of production.
- Mine level production does not equal declared export quantities.** Mine level data is for raw production of ore which contains impurities. These minerals are cleaned concentrated for

export with an inevitable loss of weight as waste material is discarded. Also, minerals need to be accumulated into sufficient quantities for export lots. There may be significant time lags between production and export to accommodate this.

- (c) The MEM lacks a centralized and easily cross-checked database for mineral production and export data.** The World Bank is currently working with the MEM and Pact to resolve this problem and to facilitate more accurate data reporting.

**A challenge to the growth of Burundi's 3Ts market is the impact of international legislation on mineral buyers and the resulting demands passed from buyers to suppliers.** In 2010, the United States enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act (usually called 'Dodd-Frank'). Section 1502 of the Act, accompanied by the Security and Exchange Commission (SEC) Rules, requires companies traded on US stock markets to disclose the origin of and 3Ts and gold they use if those minerals are "necessary to the functionality or production of a product." Any of these minerals originating from the Democratic Republic of Congo (DRC) or any adjoining country, including Burundi, have not been produced under conditions of conflict, nor are they contributing to armed conflict in the Great Lakes Region (GLR). Added to this, the Organization for Economic Cooperation and Development (OECD) issued Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas which set out the same requirements in more detail. Despite Dodd-Frank coming into force in 2011, Burundi continued to export significant quantities of 3Ts throughout 2011 and 2012. It is unclear why the impact of Dodd-Frank was not felt earlier in Burundi since certain smelters were less concerned about due diligence and had continued to buy for a time prior to entering into the Conflict Free Smelter Program (CFSP) audit system.

### 1.2.3 Mineral Production and Export of Gold

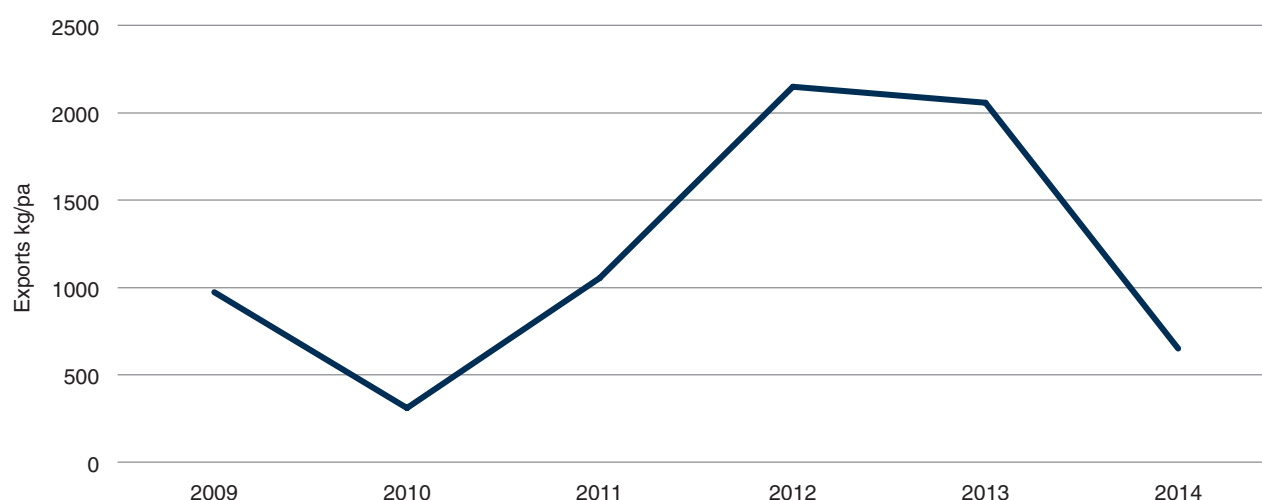
**Gold exports fluctuate significantly.** The quantity of declared gold exports increased from 2009 to 2013, at which point it was over 2 tonnes. This corresponds to the increase in the number of comptoirs and associations that were approved for the production and export of gold. However, several sources agree that this amount represents only a small proportion of the actual quantity of gold exported from Burundi (some informants suggest this may be only 20% of actual, unofficial exports, though there is no way to verify this estimate at present and this would indicate an overall export that would be disproportionately high in relation to estimated production for the region). Although the proportion of gold that passes through Burundi is unknown, previous studies (specifically that of Midende, 2009) estimate that the minimum quantity of gold actually produced in Burundi was 1 tonne per year. Official export figures for 2014 were much lower at 650kg (see Figure 1.7).

## 1.3 Mineral Prices

**The prices paid for minerals in Burundi are highly variable, dependent on many factors, and not comparable across the Region.** The purchase price for the 3Ts on site and via formal and informal *négociants* was obtained from actors at both formal and informal sites who were willing to respond to this question. It should be noted that these prices were typically given with no reference to grade as most informants at field level were unaware of the metal content of the ores. Prices reported at field level were: tantalite at US\$10–24/kg; cassiterite at US\$2–6/kg; and wolframite at US\$1–6/kg. The variability in price is a function of a range of issues which includes but is not limited to:

- (a) Whether or not the buyer is the owner of the mine:** If the buyer owns the mine they may

**FIGURE 1.7:** Official Gold Exports from Burundi 2009–2014



set prices that reflect the investment made in managing the mine.

**(b) The grade of the material:** Specific unwanted impurities which would increase penalty charges at the smelters. Ores with higher mineral content should, normally, command a higher price however in most cases knowledge of grade is limited and few, if any, resources exist to test mineral grades at mine sites.

**(c) The mineral content of the ore:** Very frequently ores contain mixed minerals. Most of the respondents to the study were not aware of the grade of their minerals. Indeed, 78.5% of the respondents were unaware of the grade of the minerals. Most of them were miners. Therefore, price negotiations between the cooperative and the miners (usually carried out by the team leaders) do not often include the quality of the minerals. Mineral prices at the *comptoirs* are more dependent on the quality of the mineral content. However, a lack of laboratory equipment within the relevant services of the *Direction Générale de la Géologie et des Mines* (DGGM) means that responsibility for determining the quality of mining products rests with the *négociants* and/or the *comptoirs*, and

this is a constant source of conflict. Samples can also be sent outside of the country (usually to Rwanda, where the appropriate infrastructure exists) to ascertain quality.

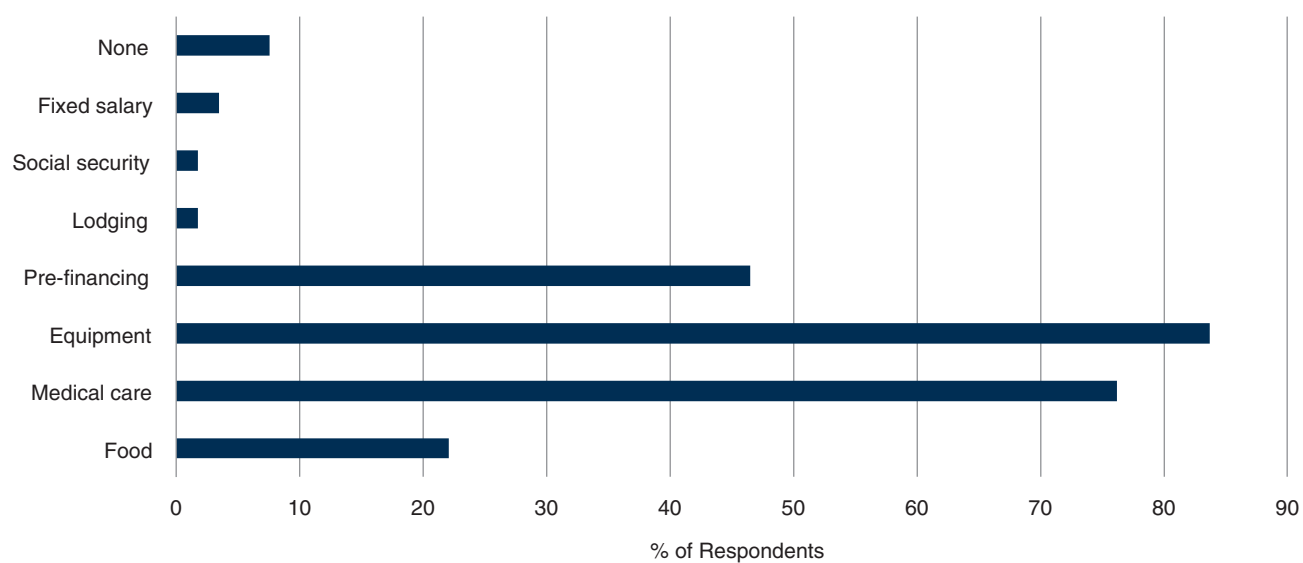
**(d) Pre-financing arrangements with ‘sponsors’:** Sponsors may provide miners with equipment, credit, financial support in times of low production, etc., all of which may be subject to repayment through discounts on purchase prices of minerals. Most of the respondents in this study said that they received some help/compensation from their buyer. The majority of respondents received medical aid, equipment, and food. Others declared that they received direct pre-financing (see Figure 1.8).

**(e) The remoteness and accessibility of the site:** Sites which require higher transport costs may offer lower prices to compensate. Sites which are hard to access may suffer from few buyers being willing to travel to them.

**(f) The local cost of labor and cost of living.**

**(g) Local production and weather conditions:** If a mine owner has to transport water to a site for mineral washing (in the dry season, or for sites with few water sources) this may increase production costs and lower purchasing prices.

**FIGURE 1.8:** Compensation or Support Received by Miners from Cooperatives or Sponsors



**(h) The local market prices, liquidity and competition amongst buyers:** Local markets are highly volatile at present in many parts of the Great Lakes Region, not just Burundi. This particularly extends to availability of cash to purchase minerals.

**(i) The bargaining power of the seller:** Individual miners are generally 'price takers' and may have little influence over price while cooperatives may be able to demand higher prices.

**(j) International market prices:** This is a critical factor. Commodity prices are on a downward trend for many minerals with the 3Ts having seen significant price decreases in the last year. This has had a direct impact on local prices. When prices are low, the incentive for miners to work is reduced, with production decreasing in direct proportion. Miners may shift between mines/minerals according to prices offered, for example a downward trend in tin price may drive miners into gold mines.





# 2

## Tax Administration and Revenues: Challenges and Progress

### 2.1 Mineral Tax Administration

#### 2.1.1 Mineral Taxation Framework

Progress has been made in streamlining the ASM taxation framework however the 2013 Ordinance significantly increased taxes payable by actors in the ASM sector. ASM taxation is governed by the new Mining Code. Two Ministerial Ordinances were issued on an interim basis at the end of December 2013 to be abrogated once the full Mining Regulations are completed and adopted by the Government. Ministerial Order No. 760/540/1758/2013 details the administrative and fiscal requirements for the granting and renewal of prospecting permits, research permits, exploitation licenses for mines and quarries, licenses for artisanal exploitation, and permits related to the purchase and sale and export of artisanally mined minerals in Burundi. Ministerial Order No. 760/540/770/1757 stipulates annual royalties in the form of an ad valorem for artisanal mines and quarries, as well as the taxes and fees levied on those involved in the purchase and sale and export of artisanally mined minerals. A full summary of all applicable taxes and payments to be made by cooperatives and comptoirs is given in Table 2.1 which shows the increases that occurred. Of particular note:

**(a) Permit allocations known as fixed fees ('droits fixes') are payable every two years.** These fees are consistently paid as exploitation licenses

for mining cooperatives and comptoir trading licenses are dependent on applications being accompanied by proof of payment of these fees (as per Article 95 of the Mining Code).

- (b) Annual surface rents are payable for ASM operations.** During a 2014 consultation process called the *Assises de Banga*, it was proposed that these annual surface rents for ASM be eliminated however they remain in place at present.
- (c) Ad valorem tax and export duties are calculated based on the value of the minerals being exported.** This value is determined by the exporter using a formula that takes into account both the quantity and quality (content) of the minerals, together with international market prices.
- (d) Repatriation or surrender of foreign currency generated by minerals sales is included in the tax regimen.**
- (e) Mining sector actors are also obliged to pay other taxes applicable under Burundi's General Tax Code.** Article 143 of the new Mining Code stipulates that mining companies, including those involved in ASM, 'are subject to the tax and customs regime of general law in force in Burundi'. Thus companies, cooperatives and comptoirs involved in ASM are now subject to the payment of income taxes (this was not the case before October 2013), and must now be in conformity with Burundi's Tax Code.



**TABLE 2.1** Nomenclature of Taxes, Royalties and Fees Applicable to ASM in Burundi

Payment (FR)	Payment (ENG) (Unofficial Translation)	Legal Status	Paid by	To	Point of Payment	Frequency	Calculation Basis	Mineral	Amount in FBU (USD) Pre 2013	Amount in FBU (USD) Since 2013	Amount in USD Adopted in 2015 <sup>12</sup>
Droits fixes	Permit fee	Mining code (pre 2013), Ordonnance (2013)	Cooperative	Treasury	Mine	2 years	per site	Gold	8,000,000 (5,200)	100,000,000 (65,000)	600
								Sno2	100,000 (65)	2,000,000 (1,300)	600
								Ta03	200,000 (130)	2,000,000 (1,300)	600
								W0	100,000 (65)	2,000,000 (1,300)	600
Redevance minière annuelle	Annual surface rent	Mining code (pre 2013), in discussion	Cooperative	Treasury	Mine	Annual	per ha	Gold	5,000,000 (3,250)	20,000,000 (13,000)	5,000
								Sno2	100,000 (65)	5,000,000 (3,250)	1,000
								Ta03	200,000 (130)	10,000,000 (6,500)	1,500
								W0	100,000 (65)	5,000,000 (3,250)	1,000
Réhabilitation des sites	Rehabilitation of sites	Mining code (pre 2013), in discussion	Cooperative	Treasury	Mine	Annual	per ha	ALL	500,000 (325)	1,000,000 (650)	No info <sup>13</sup>
Taxe communale	Communal taxes	In discussion	Cooperative	Treasury	Mine	by transport	per kilo of minerals	Gold		No info	No info
								Sno2		No info	No info
								Ta03		No info	No info
								W0		No info	No info
Droits fixes	Permit fee	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	Annual	NA	Gold	16,000,000 (10,400)	100,000,000 (65,000)	35,000
								Sno2	300,000 (195)	50,000,000 (32,500)	10,000
								Ta03	300,000 (195)	50,000,000 (32,500)	10,000
								W0	100,000 (65)	50,000,000 (32,650)	10,000
Contribution à la réhabilitation des sites	Contribution to the rehabilitation of sites	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	Annual		Gold	5,000,000 (3,250)	No info	No info <sup>14</sup>
								Sno2	100,000 (65)	2,000,000 (1,300)	No info
								Ta03	200,000 (130)	2,000,000 (1,300)	No info
								W0	100,000 (65)	2,000,000 (1,300)	No info

*(Continued)*

12. Mining regulations were just adopted before the report was released. However, implementation measures were not yet adopted therefore all values are in US\$ not yet in FBU.

13. The Ministry of Mines stated that the amount will be fixed by an ordonnance adopted by the Ministry of Environment. The ordonnance was not adopted at the time of this report.

14. The Ministry of Mines stated that the amount will be fixed by an ordonnance adopted by the Ministry of Environment. The ordonnance was not adopted at the time of this report.

TABLE 2.1 *Continued*

Payment (FR)	Payment (ENG) (Unofficial Translation)	Legal Status	Paid by	To	Point of Payment	Frequency	Calculation Basis	Mineral	Amount in FBU (USD) Pre 2013	Amount in FBU (USD) Since 2013	Amount in USD Adopted in 2015
Obligation de rapatriement en devise	Levy on the repatriation of foreign currency	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	per export	Value of export (by mineral)	ALL	No info	No info and no payment so far	No info
Tax Ad Valorem	Tax Ad Valorem	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	per export	Value of export	Gold	0.30%	No info	2%
								Sno2	3%	No info	3%
								Ta03	3%	No info	3%
								W0	3%	No info	3%
Droits de sortie	Export duties	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	per export	Value of export	Gold	0.20%	No info	No info <sup>15</sup>
								Sno2	1%	No info	No info
								Ta03	2%	No info	No info
								W0	1%	No info	No info
Prélèvement sur rapatriements de devises	Custom duties on other gain	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	per export	Value of export	ALL	1% per transfer	1% per transfer	No info
Les droits de douanes à l'entrée sur les autres produits	Import fees on other goods	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	per import	Variable—on value	ALL	No info	No info	No info
Impot sur le revenu	Income tax	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	Annual	Income of comptoir	ALL	Exonerated	30% if in profit 1% if loss	No info
Import sur le mobilier	Tax on movable	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	Annual	Income of comptoir	ALL	Exonerated	No info	No info
Taxe sur la valeur ajoutée	TVA	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	Annual	Income of comptoir	ALL	Exonerated	No info	No info
Autre fiscalité de droit commun	Other common duties	Mining code (pre 2013), in discussion	Comptoir	Treasury	Export	Annual	Income of comptoir	ALL	Exonerated	No info	No info

15. The Ministry of Mines stated that the amount will be fixed by an ordonnance adopted by the Ministry of Finance. The ordonnance was not adopted at the time of this report.

### 2.1.2 Mine Tax Administration: Collection, Management and Distribution

DGGM was the primary collection point for mineral sector taxes prior to 2014. Previously DGGM reviewed applications for *comptoir* licenses and collected the related taxes and fees. All taxes were paid into an account at the Central Bank, with a receipt of payment required by DGGM before a license could be issued. The *ad valorem* tax and export duties were paid to DGGM and the Customs Office respectively. However, since 2014, DGGM does not receive anything directly.

Under the new Mining Code, the OBR is the sole agent of the state authorized to collect taxes including those from ASM cooperatives and *comptoirs*. All taxes and royalties must be paid at the counters of the OBR in Bujumbura, and receipt of payments given. Revenues generated through tax collection by OBR are transferred to the Ministry of Finance and eventually are found in the national budget.

### 2.1.3 Challenges Revealed in the Taxation Framework and Its Administration

There are challenges for OBR in collection of taxes from the mining sector. Interviews with Government and other stakeholders highlight the following problems:

- (a) **The tax increases introduced in 2013 were exorbitant and dis-incentivized participation in the formal sector.** The new taxes which included increases of up to 50,000% (e.g., fixed fees for wolframite *comptoirs* went from USD 65 to USD 32,650) were almost impossible to collect. The cost of doing legal business, set against a background of falling mineral prices, became prohibitive and this hampered the work of OBR.
- (b) **The OBR lacks knowledge of the sector.** This includes unfamiliarity with tax nomenclature as it applies to ASM operations. Further, the OBR does not control tax policy, especially as it is applied to mining cooperatives. This lack of knowledge is compounded by poor and irregular communication with the MEM.
- (c) **OBR is insufficiently integrated with MEM for the effective application of other relevant taxes to Burundi's mining companies, cooperatives and comptoirs.** OBR and the mining services need to work together to put in place adequate mechanisms to audit the accounts of mining cooperatives and *comptoirs*, as provided for in the Mining Code.
- (d) **There is no reliable register of ASM operators.** The OBR's registry (Tax Registration Numbers) does not reflect all mining operators, and the database of license holders is not regularly updated by the MEM.
- (e) **Calculation of the *ad valorem* tax depends on the grade and value of the mineral being exported however capacity and responsibility for this are challenging.** Mineral content (quality) should usually be determined by the national testing laboratory however, due to a lack of equipment, it currently falls to the *comptoirs* to determine content at the point of purchase and export. This means that in effect it is left to the rate-payers to determine the rates which they must pay. OBR does not have access to the calculations used and therefore has no way to verify whether declarations are valid.
- (f) **Repatriation or surrender of foreign currency generated by minerals sales is included in the tax regimen.** However legal provisions relating to foreign currency repatriation are not applied at present and are unlikely to be effective until there is adequate collaboration between the mining services, the Central Bank, the OBR and the private banks into which mineral exporters receive their earnings.
- (g) **The OBR is not yet present in mining areas.** It is anticipated that with the national decentralization process which is under discussion, in the future payments to OBR may be made at other OBR counters in the provinces. The establishment of local offices of the *Direction des Mines* would also facilitate this task, by providing OBR with an up-to-date register of cooperatives in a given province.



**(h) The OBR is not yet present at all official and unofficial border crossings.** In addition, its collaboration with the other State services located at these points remains problematic.

**At present, all revenue from ASM goes into the national treasury, as there are no official provisions for tax collection at the communal or provincial levels.** In Article 151, the Mining Code stipulates that ‘the distribution of the ad valorem tax between the State and the municipality will be specified by other special provisions, laws or regulations.’ The application of this provision could help to reduce the feeling that local entities have that ASM ‘only benefits the rich’. If they were to profit directly from the ad valorem tax, local authorities would also be more likely to promote and regulate ASM activities in their region.

**These concerns are the focus of the World Bank’s and the Government of Burundi collaboration.** The *Projet Multisectoriel de Renforcement des Capacités Institutionnelles* (Multisectoral Institutional Capacity Building Project) [P149176] aims to improve current practices, particularly in relation to revenue collection, starting with an audit of the mining value chain. The project also includes, amongst other things, a proposal to establish a Joint Technical Commission (consisting of OBR and MEM) to conduct the audit and develop recommendations.

### 2.1.4 Informal Payments in ASM

**Typically, there is a wide range of informal payments made in the ASM sector alongside formal taxes.** Payments may be demanded on the basis of culture and traditional practices, they may be charged as a form of unofficial payment for services provided by state agents such as mine inspection, security, etc., or they may be simply taken as institutionalized or opportunistic ‘tracasserie’, ‘baksheesh’, or bribery.

**In Burundi, the level of informal payments being made in the ASM sector by miners is relatively low.** Over 70% of miners affirmed that they

were not making any informal payments. For those that were, it was mainly to buy equipment to carry out their mining activities. However over 90% of cooperative leaders reported making payments for security, official taxes, contribution to communities, transport, and payments to buy and/or rent land. See Figure 2.1.

## 2.2 Official ASM Tax Revenues

**Official tax revenues from the mining sector have been in decline since 2012.** Declared receipts from the mining sector in Burundi, as reported by OBR,<sup>16</sup> are shown in Figure 2.2. In line with production, the revenues show a downward trend since 2012. Data was not available to indicate the specific source of this income therefore it is not known which taxes or fees generated these returns, nor which minerals. However the official MEM export figures for this period are available (see Figures 1.4 and 1.7). The decline shown in OBR official revenues mirrors that of 3Ts minerals but does not reflect the substantial volume of gold which was exported during that period.

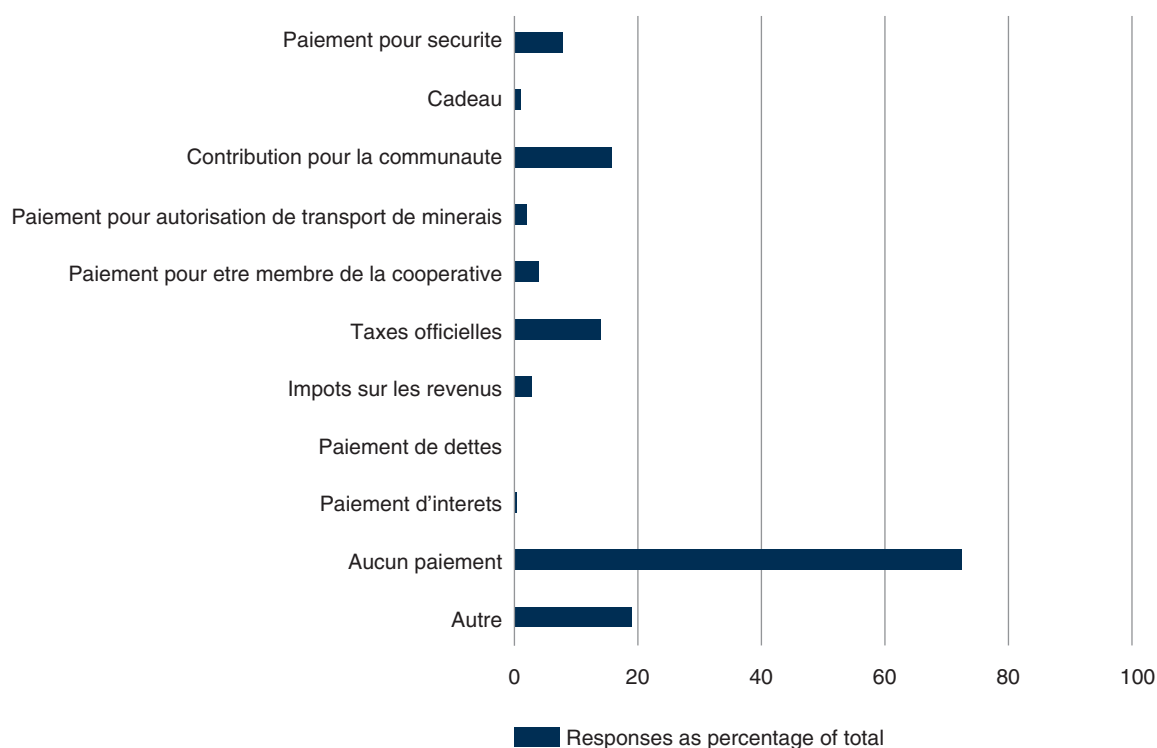
### 2.2.1 Tax Revenues Generated by the 3Ts

**The official reported tax revenues for the 3Ts for 2014 are given in two different figures.** The first, was USD 523,000 as declared by OBR (see Figure 2.2) and the second was USD 700,000 as declared by the MEM in the 2014 Annual Report of the *Direction des Mines et Carrières*. This Annual Report provides a detailed breakdown of the source of all revenues generated by the sector including ad valorem and export duty for tantalite, ad valorem and export duty for wolframite, annual surface rents, permit fees and site rehabilitation.

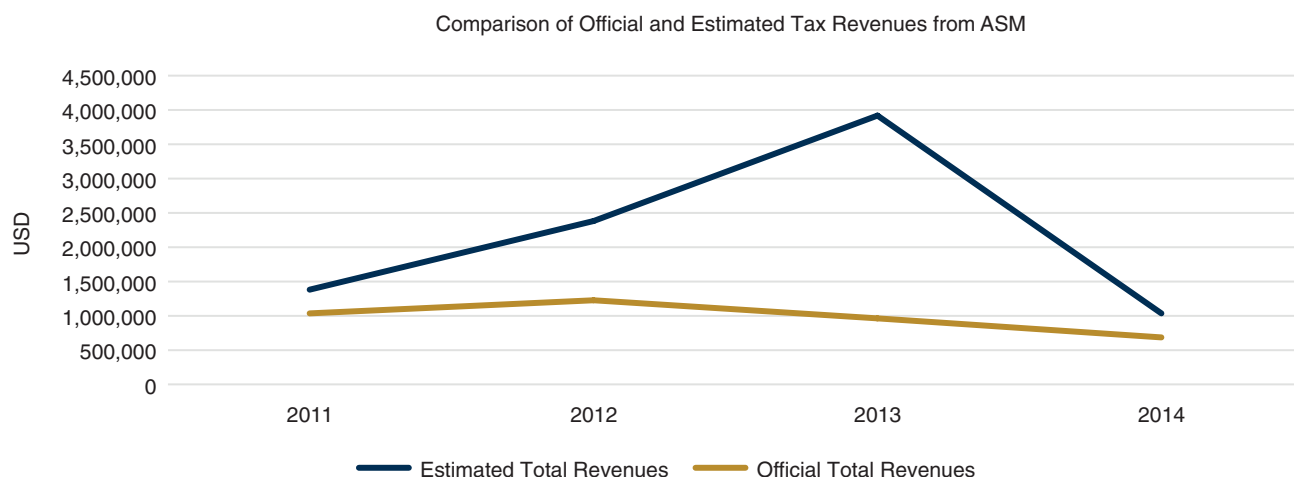
**Calculations to apply EITI to the 3Ts tax revenues produce a lower income than is officially reported.** The known, official tax regime was

16. Conversion rates used are approximate by year, from <http://www.oanda.com/currency/historical-rates/> 2008: 0.00085; 2009: 0.00085; 2010: 0.00080; 2011: 0.00080; 2012: 0.00070; 2013: 0.00065; 2014: 0.00065.

**FIGURE 2.1:** Types of Payments



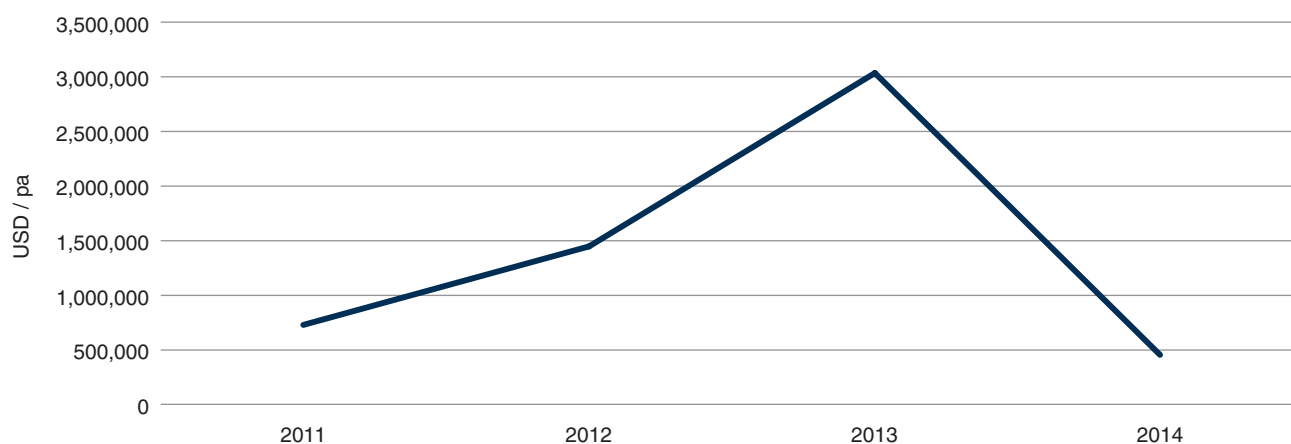
**FIGURE 2.2:** Official and Estimated Tax Revenues from the Mining Sector in Burundi 2008–2014



applied to the available information relating to numbers of cooperatives, numbers of *comptoirs* and volumes of minerals produced and exported (see Annex 1). This exercise required the use of a range of assumptions and variables. Using these figures, calculations indicate a contribution of US\$578,600 in 2014 on the basis of 300 tonnes of minerals produced.

**The variance can be accounted for by several factors, most notably the need for improved data, harmonized reporting and strengthened coordination between OBR and MEM.** This variance could be accounted for in a variety of ways including: error or variance in estimates and assumptions, time lag in payments being made or received, time lag in processing applications, errors in

**FIGURE 2.3:** Estimated Tax Revenues from the Gold Mining Sector in Burundi 2011–2014



accounting, etc. Therefore the challenges in reconciling tax revenue data for the 3Ts seem to primarily relate to coordination, information sharing and harmonization of data included in calculations rather than indicating any serious loss of material through the system.

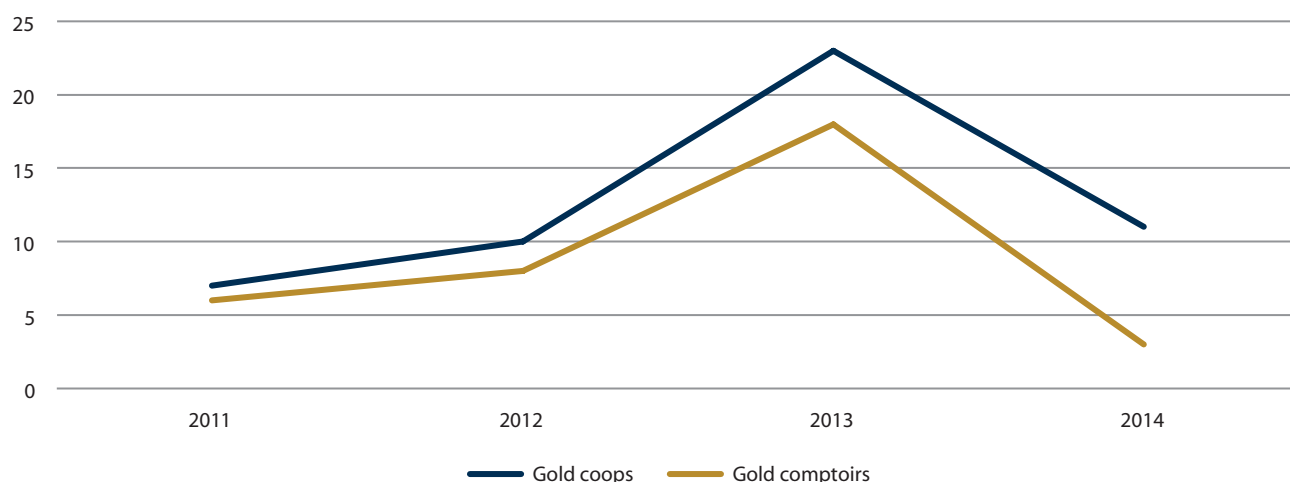
### 2.2.2 Tax Revenues Generated by Gold

**The official Annual Report for the mining sector in 2014 does not calculate taxes received from the gold sector.** However, using the official export statistics for gold, and using an average annual value for gold, estimates of tax revenues can be made.

This estimate peaks around USD 3,032,000 in 2013 when official gold exports were over 2 tonnes. It drops to \$453,000 in 2014 when official exports were around 650kg (see Figure 2.3).

**The trend in estimates for tax income from gold mirrors the number of licensed cooperatives and comptoirs.** See Figure 2.4. This indicates a probable close relationship between the cost of doing legal business as a licensed operator and the revenues generated for the state. The two Ministerial Ordinances of 2013 which stipulated increased fees and taxes to be levied on cooperatives and comptoirs is likely to have been a contributing factor to the reduction in the number of

**FIGURE 2.4:** Number of Licensed Cooperatives and Comptoirs for Gold in Burundi 2011–2014



officially registered traders and exporters and the resulting fall in declared exports.

**Increases in the cost of doing business are particularly important in the ASM gold sector where profit margins are typically very small.** ASM gold already has a high degree of purity (typically from 85% to 95% depending on its geological presentation and processing techniques) and the international price of 99.999% gold is readily available. Transport costs are low and markets are easily accessed. Thus prices paid at mine level are relatively high. Legal gold traders face fierce competition from the black market and the costs of doing legal business impact negatively on the price they can offer. Thus compliance can easily become uncompetitive.

**It should be noted that there are misleading estimates made in some reports.** Many reports focus on the market value of gold and present this figure as 'lost revenues' to the State. However, this is not accurate as the only revenues due are those prescribed under the tax regime.

## 2.3 Mechanisms for Transparency in the Mining Sector of Burundi: How Can EITI and iTSCi Help?

Reforms are presently underway by the Government to improve transparency in the minerals sector in order to arrive at a better articulation of the economic value of ASM. Indeed, two parallel but complementary transparency processes are being undertaken by the Government, with assistance from international partners. These are the Extractive Industries Transparency Initiative (EITI) and the ITRI Tin Supply Chain Initiative (iTSCi). These two initiatives have complementary and mutually reinforcing objectives which strengthen transparency in the ASM sector through collection of data on production, trade and taxation.

### 2.3.1 EITI

**The EITI is an international standard to promote transparency around countries' oil, gas**

**and mineral resources and revenues.** The EITI Standard sets the requirements and provides guidance on how to report activity in the extractives sectors and ensures that this information is available to the public. The Standard also covers issues such as the issuance of licenses/concessions and state mineral sales.

**The EITI has traditionally focused on the formal sector.** As a result, reporting on ASM has been considered a major challenge and has largely been ignored. There are often gaps in national ASM data, both in terms of production statistics (both those disaggregated by mine site and mineral, and those aggregated at the national level) and in terms of formal revenue streams derived from licenses and taxes. However iTSCi, the parallel initiative being undertaken by the Burundi Government for mineral traceability, provides a means of filling some of these data gaps.

**The Government of Burundi is committed to implement EITI.** On 20 January 2015, the Government publicly declared its intention to pursue candidacy in the EITI process. Burundi must now work towards submitting its application for Candidacy to the EITI Secretariat in Oslo, Norway. It has pledged to do so by December 2015. Once accepted as an EITI Candidate country, Burundi must begin the process of EITI reporting. It is with this in mind that the study was commissioned: to see how to make reporting from an ASM country possible.

### 2.3.2 iTSCi

**Burundi's 3Ts sector has been impacted by international legislation and the resulting demands passed from buyers to suppliers.** In 2010, the United States enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act (usually called 'Dodd-Frank') which was accompanied by the Security and Exchange Commission (SEC) Rules which require companies traded on US stock markets to disclose their use of certain minerals if those minerals are "necessary to the functionality or production of a product" manufactured by those companies. The minerals in question are tantalum, tin, tungsten or gold originating

from the Democratic Republic of Congo (DRC) or any adjoining country. The objective is to ensure that minerals in US supply chains are 'conflict free', i.e., they have not been produced under conditions of conflict, or which are contributing to armed conflict in the Great Lakes Region (GLR). Added to this, the Organization for Economic Cooperation and Development (OECD) issued Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas<sup>17</sup> which set out the same requirements in more detail.

**iTSCi was implemented as a response to market demands for conflict-free minerals.** As a response, the international tin industry association, ITRI, and the international tantalum industry association, T.I.C., worked with the Governments of DRC, Rwanda and Burundi, the International Conference of the Great Lakes Region (ICGLR), and international NGO, Pact, to develop and implement a comprehensive due diligence and mineral traceability system which would enable 'conflict-free' minerals to be traded on the international market. The ITRI Tin Supply Chain Initiative rapidly became the accepted industry standard to guarantee market access and, by 2014, covered the vast majority of 3Ts minerals being produced in, and exported from, the Region. The Government of Burundi signed a Memoran-

dum of Understanding (MoU) with ITRI on 27 May 2011, but it was not until May 2014 that the system was launched in Burundi, partly due to the difficulty in securing funding for the start-up of the initiative.

**iTSCi is a comprehensive mineral traceability and due diligence system.** Mineral traceability under iTSCi involves a multi-step mineral tagging and data collection process implemented by the Government of Burundi and designed to be entirely absorbed into the normal management practices of the mining services. Minerals are traced and data is recorded at mine, processor and exporter levels as well as along its transport route. Added to this, due diligence assessments are carried out on all suppliers who must be members of iTSCi and who are subject to independent, third party audits. Risk assessments are also carried out. iTSCi is fully compliant with OECD Guidance and minerals from the iTSCi system can enter into smelters which have passed their Conflict Free Smelter (CFS) audit.

**iTSCi membership in Burundi is increasing.** As of the start of 2015, there were four iTSCi full members and two iTSCi provisional members operating in Burundi. WMP (Wolfram Mining and Processing Ltd), Tantalum Mining Company (TAMINCO), BMS (Burundi Mining Supply) and AUMERCAT were full members. SECOMIB (Société d'Exploitation et de Commercialisation des Minerais du Burundi) and ATM (African Tantalite Mining) are provisional members of iTSCi.

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17. <http://www.oecd.org/corporate/mne/GuidanceEdition2.pdf>







# 3

## Recommendations

**B**urundi is undergoing a period of political insecurity in relation to the 2015 elections. This insecurity is causing significant disruption to the mining sector, both in terms of production and export. The immediate, knock-on effect of the civil disturbance on Burundi's economy has been profound. During periods of economic stress, ASM should be a safe haven rural livelihood and should be a major contributor to bolster the national economy when other activities are imperiled. Yet the current insecurity threatens Burundi's 'conflict free' status and, if the situation deteriorates further, there is a real risk that the international market will shun Burundian minerals as being too high risk. This would have a catastrophic impact on the country's mineral sector.

### 3.1 The 3Ts Sector in Burundi

#### 3.1.1 Observations on the 3Ts in Burundi

**Burundi's 3Ts sector is underperforming in terms of its potential delivery to the national economy.** There are three key external factors which are impacting on the sector:

**(a) Commodity prices:** The low price of tin in the first half of 2015 has made cassiterite mining unattractive and has whittled down profit margins across the region. Whilst this is not something which is within Burundi's control, efforts should be made to transition cassiterite miners to other minerals during the period of low prices to compensate for lost earnings.

The price of tantalite remained more robust but was also impacted.

**(b) International demand:** The international market for wolframite was very weak throughout the study period. This is a major issue for Burundi as wolframite is one of the most important minerals, proportionally, in its mining sector. The Government of Burundi should adopt an active outreach strategy to seek to engage buyers and to instill confidence and interest in the market. This can be achieved through participation in business forums, media outreach, trade delegations, and other forms of engagement with the market.

**(c) Price and tax differentials in the regional market:** Whilst the Government cannot set commercial prices in a free minerals market, due consideration should be given to the pricing disadvantage which is observed in Burundi and the risk that this may encourage illegal transport of minerals to obtain better prices in other areas. The Government should engage with Burundian producers and traders to determine what incentives could be put in place to promote the local market and better prices. The retention of minerals within the legal trade is essential if their revenue contribution is to be realized.

**There are also internal issues which have contributed to the underperformance, notably delays in issuing licenses and costs associated with formalization and the tax regimen.** Delays in the licensing process for cooperatives mean

that a large number of groups have either halted in their operations or are trading outside the formal system. iTSCi is only extended to licensed cooperatives (which now make up less than half of all cooperatives) and this is the only mechanism which exists for international market access at present. The cost of licenses for cooperatives also impacts the rate of uptake. The cost increased by a factor of 10 for tantalite licenses (from 200,000 FBU to 2,000,000 FBU—i.e., from US\$130 to US\$1,300) and by a factor of 20 for cassiterite and wolframite licenses (from 100,000 FBU to 2,000,000 FBU—i.e., from US\$65 to US\$1,300). The impact of the 2013 tax increases is repeatedly noted as being a deterrent to formal business in Burundi. The longer term advantages of incentivizing licensing and thereby having more miners and more mineral production inside the system as compared to the shorter term gains that can be achieved by higher license fees seems to have been taken into consideration in the new Mining Regulations in 2015.

**Increased transparency is possible.** As public reporting of verified iTSCi production and export figures becomes available, it will be straightforward for the MEM and the Treasury to employ a basic calculator to track all revenues being derived from the sector. Thus the implementation of EITI for cassiterite, tantalite and wolframite produced by artisanal miners in Burundi using iTSCi will be relatively straightforward to do.

### 3.1.2 Recommendations for the 3Ts in Burundi

- (a) Re-establish security and stability to maintain Burundi's 'conflict free' status:** The over-riding recommendation must be for the Government of Burundi to take all necessary steps to restore stability and to maintain the country's 'conflict free' reputation. Without this, the 3T sector in Burundi will collapse.
- (b) Follow through on proposed reductions in taxation:** The 2013 dramatic increases in the tax regime failed to increase tax revenues to the state, rather they increased the cost of legal trade against a backdrop of falling mineral

prices which contributed to the reduction in official exports and concomitant tax revenues. The proposed reductions for 2015 should have a stimulant effect.

- (c) Incentivize improved mineral prices:** The Government of Burundi should engage with local producers and buyers to identify what market incentives or stimulants could be put in place to improve local mineral prices to ensure they come in line with mineral prices elsewhere in the region. Price differentials contribute to illicit mineral flight and loss of revenues.
- (d) Increase participation in the formal sector:** Priority should be given to speeding up the licensing process for cooperatives to increase the number of productive sites as quickly as possible. If the cost of licenses is a block, creative solutions should be sought such as payment of licenses in installments, discounts on licenses against production, etc.
- (e) Promote holistic ASM formalization:** Licensing of cooperatives should be coupled with an awareness/support program about ASM production efficiency, safety and access to finance. This should be proposed to donors and could be carried out in partnership with iTSCi as part of its 'phase 3' social and technical program support.
- (f) Decentralize tax payments:** The process of decentralization of OBR payment counters should speed up to facilitate local payment of taxes, ideally in collaboration with the establishment of local offices of DGGM.
- (g) Diversify mineral production:** Emphasis should be placed on investment in diversification of mineral production during periods of unfavourable pricing. As tin prices are currently depressed, incentives should be given for non-cassiterite sites to expand to accommodate out of work cassiterite miners and to bolster economic activity. This could be achieved through further tax breaks, guarantees of loans, or other business-oriented incentives.
- (h) Strengthen tungsten trade:** The Government of Burundi should develop and implement a plan for positive market engagement with the

tungsten industry to stimulate investment in, and markets for, Burundian wolframite. The discourse should not focus on the challenges but should promote opportunities for investment, trade and partnership.

- (i) **Expand iTSCi:** The Government of Burundi should maintain its partnership with ITRI with a view to expanding the iTSCi system across all 3T sites in the country as quickly as possible. iTSCi gives the Government visibility into the sector and provides an important tool for managing mines, tracking minerals and monitoring revenues.

## 3.2 The Gold Sector in Burundi

### 3.2.1 Observations on Gold in Burundi

**The legitimate revenue flows from gold which should contribute to the national economy are severely disrupted.** Using the Government's own export figures from 2013, and using the new tax values promulgated that year, the shortfall in terms of revenues due to the state exceeded US\$3 million for that year. There are no revenues at all reported for the 645kg of gold officially exported in 2014.

**Tax rates play a major role.** The Mining Regulations of 2015 propose to reduce key taxes for gold (notably the permit fees for cooperatives and *comptoirs* as well as the annual surface rents) however the ad valorem tax for gold has increased significantly from 0.3% on the value of the export to 2% which is unlikely to stimulate increased legal gold flows.

**Dodd-Frank applies to gold as well as to the 3Ts.** However this application is much more challenging in the gold sector. The international gold market is structured entirely differently from that of the 3Ts and the demands of gold buyers are far more flexible than those of 3Ts buyers. Therefore the market levers are much weaker in gold. At present, there is no due diligence and mineral traceability system in place for gold in the Great Lakes Region and no imminent prospect of one being widely available. Yet, entirely aside from

Dodd-Frank, there are clear drivers for the Government of Burundi to gain a better hold on its gold sector.

**Changing the dynamics around the gold trade is complex.** Providing a full set of recommendations is beyond the scope of this report, however broad recommendations can be made based on extensive experience of working on this subject in other countries.

### 3.2.2 Recommendations for the 3Ts in Burundi

- (a) **Carry out a baseline to obtain accurate statistics on gold production and trade:** This is needed to determine the actual level of gold production in Burundi. This should be a relatively straightforward matter given the limited size of the country and the known areas of gold production. This data will allow a differentiation between gold originating from Burundi and that entering the Burundian market from elsewhere.

- (b) **Engage producers and buyers in the creation of a viable, profitable, legal business environment for gold trade in Burundi:** Practical discussions should be held with the current gold producers and buyers of gold regarding the key hurdles that exist to formalization of the gold market. Too often dialogues are held by Government, NGOs, donors and others without the full and frank engagement of the private sector including both formal and informal operators. This discussion should include (but will not be limited to): the cost and process of accessing licenses; access to formal finance; taxation; the business operating environment for import/export businesses connected to gold flows; local processing facilities/opportunities; cross-border and international trade issues; etc. This dialogue should not be framed as a 'conflict minerals' or 'illegal trade' issue, rather as a business opportunity for economic prosperity. The dialogue should have a policy of inclusivity to bring all actors on board.

- (c) **Focus on formalization of ASM gold mining and trading:** Licensing of cooperatives should be

coupled with an awareness program about ASM production and trade issues as part of a larger program of formalization of ASM. This should focus on the benefits of legal mineral trade to the country.

- (d) Improve access to finance for ASM gold miners and traders:** The Government of Burundi should seek donor assistance to set up ASM assistance programs such as access to finance to enable ASM gold miners to have greater flexibility in their operations and trading relationships (noting that, at present, many miners are 'locked in' to illegal mineral circuits as these are managed by their sponsors/financiers).
- (e) Set realistic objectives with regard to traceability:** Any investment in gold traceability should be considered in light of the market realities and should be designed as a practical and viable sector management tool rather than as a mechanism to satisfy remote market demands.

### 3.3 EITI and iTSCi Are Tools to Improve Transparency of Production and Revenues

**Many of the challenges facing Burundi's mineral sector relate to recording, sharing and reporting data.** Gaps exist in data, elements being reported are inconsistent, timings for recording and reporting are out of synch, and variables (such as price and grade) which are essential for accurate calculations are unavailable. Both EITI and iTSCi can assist in resolving many of these problems.

#### 3.3.1 Recommendations for EITI and iTSCi in Burundi

- (a) Address discrepancies in tax regimen:** A program of alignment and cooperation between

OBR and MEM should be developed with a specific view to resolving some of the challenges that arise from OBR being the sole tax collector for the mining sector. This alignment plan should clearly specify how information will be shared between the services to ensure OBR has a full understanding of mining tax nomenclature, access to ASM operators, up to date databases on licenses, etc.

- (b) Increase local awareness of EITI and iTSCi:** An awareness raising campaign needs to be carried out to increase understanding of both EITI and iTSCi both individually and collectively.
- (c) Use EITI and iTSCi as opportunities for development:** Both EITI and iTSCi are frequently considered by ASM operators to be tools for increasing regulations and State revenues. As such, these standards are thought of as constraints rather than tools for the promotion of the industry. Instead of touting them solely as tools of transparency and traceability, there is a need to emphasise the ways in which the EITI and iTSCi standards can help to meet the basic needs of artisanal mining communities. This will promote positive perceptions and acceptance of both systems.
- (d) Resolve issues around the communal tax:** The payment of the communal tax should be tracked and a mechanism should be established for transparency around the receipt and use of this tax. This can contribute significantly to the sense of ASM-generated taxes delivering social development in their locality.
- (e) Share lessons learned:** The Government of Burundi should showcase its progress in EITI reporting on its ASM sector through the use of iTSCi. This is groundbreaking work and worthy of international note.







# Annex

# 1

## Methodology

**T**he research for this report was undertaken to gain an in-depth understanding of the socioeconomic factors surrounding trade in the ASM sector in Burundi, focusing particularly on the question of pricing, transfers, and revenue collection. The research was originally designed as a rapid assessment to inform the Government of Burundi during the current discussions around the adoption of new mining regulations, though delays in the research prevented this from occurring. Nonetheless, the study is still important given the new institutional strengthening project led by the World Bank in which the MEM is a key beneficiary. The study will inform further reforms envisaged under this Project to increase revenue collection and efficient administration. Furthermore, by tracing the flow of the mineral trade, and transfers of payments, the EITI process in Burundi could be established.

This study was built on the data regarding production of 3Ts minerals collected through the implementation of the iTSCi program in Burundi. Thus the research was mainly focused on 3Ts minerals as iTSCi is restricted to tin, tantalum and tungsten. Some discussion of the gold sector is included in the report, however without iTSCi or any similar program in place for gold, it was difficult for the research team to obtain raw data for gold sites, production and trade.

The research for the study was conducted in complementary phases that combined qualitative and quantitative methods over a six-month period (July–December 2014).

### Phase 1: Literature and Desk Review

The initial phase was a literature review and stakeholder mapping of the sector. Prior to in-country research, national statistics and published reports were referenced to understand the context and the extent of previous research in the area.

Also, in order to first have an idea of the current mineral trade and production in Burundi, the study team reviewed iTSCi baseline studies carried out in the mining sites within the iTSCi program in Burundi. The literature review results were used to inform the research questions and interview tools for the field research.

The study was also informed by data collected during two other recent studies of ASM in Burundi, the 'EITI Scoping Study for Burundi', conducted between January and April 2014, and approved by the Government in June 2014 by the World Bank, and the 'Study on Artisanal and Small-Scale Mining in Burundi, 2009–2013' conducted by Professor Gilbert Midende from January to May 2014, also under the auspices of the World Bank. The latter was a sub-set of the EITI Scoping Study.

### Phase 2: Elaboration of Research Tools

The second phase was the creation of research tools for this study which responded to the

complexity and sensitivity of the subject. The complexity is a result of the multiple relationships which can arise between actors along the supply chain and the mix of formal trading with barter and credit relationships. The sensitivity arises as ASM activities are often carried out clandestinely if the operators are not licensed, mineral trade may be carried on outside the formal trading channels, information such as production and pricing can be commercially sensitive, and personal information regarding income and trading relationships can be protected for fear of security risks.

The research employed four specific tools:

- *Summary table on Burundi's fiscal provisions for ASM:* In order to easily compare past, current and future legislation under discussions, an Excel table was set up. This table was also of use in calculating the amount of payments that should be perceived by the Government of Burundi, compared to the actual level of payment.
- *Survey to collect information at the mine level:* During the first stage of data collection, the study team used paper-based iTSCi baseline study data collection forms in order to collect information on actors, mineral trade, and revenue collection. While the baseline studies include questions in relation to the collection of revenues, after a first analysis round of the results obtained, it was decided to change the research method and turn towards more specific questions on the topic, using an electronic data collection system. The research questions at this level included:
  - Location of the site;
  - Information on the interviewee and their role in the mineral supply chain;
  - Information on the minerals produced at the site including level of production, price, buyers of minerals, and internal arrangement at the mine which could impact price and/or level of production of the mine (e.g., equipment provided to the miners, food given to the miners, etc.)

- Information on payments made either formal or informal (including name of payment, who makes the payment, who collects the payment, who receives the payment, payment method, amount and frequency of the payment, receipts delivery, and if the payment is respected).

- *Survey to collect information at the comptoir level:* Since the objective of the study was to understand the mineral and revenue flow, it was necessary to follow up the mineral supply chain and to collect similar information from the *comptoirs*. At the *comptoir* level, similar information was collected and compared as for the mine level:

- Location of the *comptoir*;
- Information on the interviewee;
- Information on the mineral trade (type of mineral traded by the *comptoir*, suppliers to the *comptoir*, price paid to the suppliers, potential agreement with the suppliers);
- Information on payments made—both formal and informal—was collected (including name of payment, who makes the payment, who collects the payment, who receives the payment, payment method, amount and frequency of the payment, receipts delivery, and if the payment is respected).

- *Survey of actors in the EITI process in Burundi.* The objective was to gather updated information on the current implementation process of EITI in Burundi, challenges in this aspect as well as recommendations for the future of EITI for ASM in Burundi.

## Phase 3: Field Data Collection

After collecting information pertaining to the mineral tax regime, and setting up tools described above, the research team did data collection in the field. The research team consisted of two Pact team members, two geologists from the Department of Geology within the MEM, and a geologist from the University of Burundi. The team

worked under the supervision of Professor Gilbert Midende, also from the University of Burundi.

Data collected from individual mines was done through two baseline surveys carried out in two different ways. In September 2014, the field data collection team carried out iTSCi baseline studies on the mines, both those already in the system and those not yet incorporated. This first round of data collection was followed up by a second round in December 2014, using electronic data collection and a questionnaire more specific for the study. Photographs were also taken.

In total, 59 mines were visited, including 31 formal sites, 26 informal sites plus two sites

which were in the process of registration (thereafter counted as formal for analysis purposes) (see Table 1).

As of mid-2015, 82 3Ts sites (37 formal and 45 informal) were identified by the MEM. Therefore the study visited 72% of all 3Ts sites in Burundi (89% of the formal sites and 58% of informal sites).<sup>18</sup>

18. It should be noted that in the first six months of 2014, the balance had tipped to fewer formal sites (45%) compared to informal sites (55%). These may be accounted for by a range of factors including discovery of new resources, improved identification of informal sites, or simply a time-lag in the processing time for licenses.

**TABLE 1:** Distribution of Sites Visited and Informants Interviewed

Province	Communes Visited	Sites Visited	Mineral Type	Number of Respondents
Cibitoke	Buganda	4	Cassiterite & Tantalite	16
	Bukinanyana	1	Tantalite	
	Murwi	1	Tantalite	
Kayanza	Kabarore	6	Cassiterite & Tantalite	22
Kirundo	Busoni	6	Cassiterite & Tantalite & Wolframite	36
	Bwambarangwe	3	Wolframite	
	Gitobe	1	Wolframite	
	Ntega	9	Cassiterite & Tantalite	
	Vumbi	2	Wolframite	
Muyinga	Butihinda	2	Wolframite	56
	Gashoho	2	Wolframite	
	Gasorwe	1	Wolframite	
	Giteranyi	10	Wolframite	
Ngozi	Busiga	5	Cassiterite & Tantalite	38
	Kirembe	1	Cassiterite	
	Marangara	4	Cassiterite & Tantalite	
	Tangara	1	Wolframite	
Other	—	—	—	4
<b>TOTAL</b>		59		172

In total, 172 respondents were included in the second round. Most of the respondents were miners, followed by team leaders and heads of cooperatives. Four to five people were interviewed per mine site. The tasks undertaken at the mine include: digging (75%), washing (10%), other technical tasks (6%) and mineral transporting (9%). The study analysed the tasks where possible to determine the division of labor at the mine.

At the export level, four *comptoirs* were visited and interviewed using the survey instrument/questionnaire.

Interviews with actors and/or researchers for EITI were also carried out by Pact during the research. Including individuals from different backgrounds (civil society, government, and companies).

## Challenges Encountered

Certain difficulties were encountered when using the various tools in the field.

Although a number of cooperatives are already licensed and several others are in the process of establishment, the scale of the ASM sector in Burundi remains predominantly unquantified. There is no registration of individual miners. Information relating to *négociants*, transporters and customs authorities is difficult to extract and often unreliable. This is due to a number of factors including that respondents operating without licenses are wary of becoming 'visible' to the authorities when their operations are outside the formal system, as well as protection of information that could be commercially/competitively sensitive. The same applies to figures relating to production and the remuneration of diggers, as well as estimates of their spending as this is sensitive data. Disclosure of financial information has security implications therefore cross-checks and triangulation has been used wherever possible.

Attempts to interview people from the public services, including the police, agents of the *Office Burundaise des Recettes* (OBR), and communal administrators, were largely unsuccessful. Almost

all refused to officially identify themselves and to sign the interview records.

## Calculations of Tax Revenues

Estimates of tax revenues were made in the report using the following estimates and assumptions based on the results of field research for this report, official statistics, iTSCi raw data, and other sources (these are referenced where relevant):

- Estimate **36 cooperatives** for the 3Ts (as per end of 2014 when there were 27 licensed and 9 in process of obtaining licenses);
- Assume **1 site per cooperative**;
- Assume **1 ha per site**;
- Assume **38% (i.e., 10) of 27 cooperatives producing tantalite** (relevant as there are differential rates for tantalite compared to cassiterite and wolframite for some taxes);
- Estimate **5 comptoirs** for the 3Ts (as per end of 2014) of which, 3 *comptoirs* licensed for cassiterite and 2 *comptoirs* licensed for cassiterite, tantalite and wolframite;
- Estimate **average annual production of all minerals to be 300 tonnes** at mine level;
- Estimate **average annual export of all minerals to be 270 tonnes** (allowing for 10% loss in cleaning raw material to export-ready concentrate);
- Estimate average **annual production of cassiterite** as 22% of total (14% of known production and estimated half of mixed minerals), i.e., 66 tonnes of production and theoretically 60 tonnes at export however there were no official exports of cassiterite in 2014;
- Estimate average **annual production of tantalite** as 38% of total, i.e., 114 tonnes of production and approximately 102 tonnes at export;
- Estimate average **annual production of wolframite** as 38% of total, i.e., 114 tonnes of production and approximately 102 tonnes at export;
- Estimate **average value of cassiterite exported to be US\$5 per kg**;

- Estimate **average value of tantalite exported to be US\$30 per kg**;
- Estimate **average value of wolframite exported to be US\$5 per kg**;
- Use **exchange rate** of 0.00065 FBU : 1 US\$.
- Some taxes were not applied, notably those in relation to repatriation of foreign currency, customs duties on other gains and import duties on other goods used in the mining sector.

#### Calculation of All Taxes Due on 3Ts Production and Export 2014

Tax	Number	Value	Frequency	Amount FBU	Amount US\$	Notes
Artisanal mining license fee for cooperatives	27	2,000,000	0.5	27,000,000	17,550	Fixed fees paid by 27 cooperatives every 2 years, paid per site regardless of mineral
Surface rent for tantalite	10	10,000,000	1	100,000,000	65,000	Annual mining royalty paid by 10 cooperatives with tantalite licenses assumed to be 1 ha each
Surface rent for cassiterite & wolframite	17	5,000,000	1	85,000,000	55,250	Annual mining royalty paid by 26 cooperatives with cassiterite and/or wolframite licenses assumed to be 1 ha each
Rehabilitation of sites	27	1,000,000	1	27,000,000	17,550	Annual contribution by all cooperatives per site regardless of mineral, assumed to be 1 ha each
Communal tax for tantalite	114,000	1,000	1	114,000,000	74,100	Mine level production of 114,000 kg paid at 1,000 FBU per kg
Communal tax for cassiterite & wolframite	186,000	500	1	93,000,000	60,450	Mine level production of 186,000 kg paid at 500 FBU per kg
Permit fee for comptoirs license	5	50,000,000	1	250,000,000	162,500	Fixed fees paid by 5 comptoirs every year, regardless of mineral
Rehabilitation of sites	5	2,000,000	1	10,000,000	6,500	Annual contribution by all comptoirs
Ad valorem on cassiterite	0	3%	1	0	0	No cassiterite exports (despite production there were not cassiterite exports therefore no ad valorem tax)
Ad valorem on tantalite	3,420,000	3%	1	0	102,600	3% on 114 tonnes with export value of US\$30/kg
Ad valorem on wolframite	570,000	3%	1		17,100	3% on 114 tonnes with export value of US\$5/kg
<b>TOTALS</b>					<b>578,600</b>	



# Calculation of All Taxes Due on Gold Production and Export 2014

Tax	Number of Units	Value of Units	Frequency	Amount FBU	Amount US\$	Notes
Permit for cooperatives	11	8,000,000	0.5	44,000,000	28,600	Fixed fees paid by 11 cooperatives every 2 years, paid per gold site
Surface rent for cooperatives	11	5,000,000	1	55,000,000	35,750	Annual mining royalty paid by 11 cooperatives with gold licenses assumed to be 1 ha each
Rehabilitation of sites	11	500,000	1	5,500,000	3,575	Annual contribution by all cooperatives per site, assumed to be 1 ha each
Communal tax	649,725	500	1	324,862,500	211,161	Mine level production of 649,725g paid at estimate 500 FBU per g
Fixed fees for comptoirs	3	16,000,000	1	48,000,000	31,200	Fixed fees paid by 6 comptoirs every year
Rehabilitation of sites	3	5,000,000	1	15,000,000	9,750	Annual contribution by all comptoirs
Ad valorem	26,638,725	0.30%	1		79,916	VAT of .3% on 649.725 kg with export value of US\$41,000/kg
Export duties	26,638,725	0.20%	1		53,277	Export duties of 0.2% on 649.725 kg with export value of US\$41,000/kg
<b>TOTALS</b>					<b>453,229</b>	



# Annex

# 2

## Mining Cooperatives and Comptoirs Licensed in 2014

3Ts Cooperatives Licensed in 2014 (from DGGM: Report 2014)

N°	Nom de la Coopérative	Site	Minerai	N° D'agrément
1	CESAGE MINING	Mpehe	Cassitérite	15/2014 du 20/03/2014
2	DUKORERHAMWE	Rutanganika	Cassitérite	25/2014 du 23/03/2014
3	Coop. Minière de Busoni	Mpinga	Cassitérite	30/2014 du 13/05/2014
4	TUBANE NEZA	Murambi-Ruyaga	Cassitérite	39/2014 du 02/06/2014
5	Coop. Minière de Cibitoke	Murambi	Cassitérite	51/2014 du 12/08/2014
6	DUTEZANYIMBERE	Buvyukana	Coltan	08/2014 du 03/03/2014
7	Société Burundi Minerals Supply	Senyamisange	Coltan	35/2014 du 26/05/2014
8	ISI YACU N'ITERAMBERE	Mushanga-Rwako	Coltan	36/2014 du 26/05/2014
9	UMUCO IWACU	Giti	Coltan	40/2014 du 05/06/2014
10	ISI YACU N'ITERAMBERE	Ruhagarika-Muhetso	Coltan	41/2014 du 10/06/2014
11	CODMIBU	Muhuhuri	Coltan	44/2014 du 22/06/2014
12	Coop. Minière de Cibitoke	Ruhagarika	Coltan	47/2014 du 11/08/2014
13	CDP	Kidunduri	Coltan	53/2014 du 11/09/2014
14	AUMERCAT MINING	Gitete	Coltan	55/2014 du 02/10/2014
15	Coop. Minière E.R.M.	Mugera	Coltan	56/2014 du 02/10/2014
16	COGECOM	Nyamarobe	Coltan	58/2014 du 15/10/2014
17	COREMIBU	Rwamirambo II	Wolframite	18/2014 du 01/04/2014
18	SECOMIB	Musaza	Wolframite	22/2014 du 17/04/2014
19	SECOMIB	Kuwinkona	Wolframite	23/2014 du 17/04/2014
20	Data Mining	Budahunga-Ngomo	Wolframite	32/2014 du 08/05/2014
21	Data Mining	Murama	Wolframite	33/2014 du 19/05/2014
22	TWIYUBAKE GISOZI	Gisozi	Wolframite	34/2014 du 26/05/2014
23	DUKEREBUKE MW'ITERAMBERE	Rwamirambo I	Wolframite	38/2014 du 26/05/2014
24	HEMA	Nyarundende	Wolframite	48/2014 du 11/08/2014
25	Coop. Minière de Vumbi	Kabuye-Shororo	Wolframite	49/2014 du 11/08/2014
26	Coop. Minière de Gashoho	Cumba	Wolframite	50/2014 du 11/08/2014
27	Coop. Minière de Busoni	Bonero	Wolframite	59/2014 du 15/10/2014

Gold Cooperatives Licensed in 2014 (from DGGM: Report 2014)

No	Nom de la Coopérative	Site	Minerai	N° d'agrément
1	ABAHUZA BIKORWA	Ruhororo	Or	04/2014 du 19/02/2014
2	TWIKENURE	Bukurira 2	Or	05/2014 du 03/03/2014
3	KOZOZA KEZA	Bukurira	Or	06/2014 du 03/03/2014
4	DUSHIRE INGUUVU HAMWE TURONKIBINTU	Rugogo Kinga	Or	07/2014 du 03/03/2014
5	DUKORERHAMWE DUSOZE	Butare	Or	09/2014 du 03/03/2014
6	TWIYUNGUNGANYE de Kinyinya	Munazi	Or	11/2014 du 13/03/2014
7	Cop. Des Exploitations Minières du Moso	Munyinya	Or	21/2014 du 16/04/2014
8	Cop. KOMEZAKAZI	Gakerekwa	Or	27/2014 du 06/05/ 2014
9	Cop. MOTRACO	Rutoke	Or	29/2014 du 13/05/2014
10	Cop. Data Mining	Nyaruyaga	Or	31/2014 du 19/05/2014
11	C.T.E.E.A.O.	Munaz-Gifunzo	Or	37/2014 du 26/05/2014

Cooperatives in Process of Being Licensed 2014 (from DGGM: Report 2014)

N°	Nom de la Coopérative	Site	Province	Substance
1	SECOMIB	Kirenge	Kayanza	Cassitérite
2	Coopérative Minière de Rugazi	Nyagatobo	Bubanza	Coltan
3	Coopérative Minière de Cibitoke	Remera	Cibitoke	Coltan
4	Coopérative Minière de Ruyigi I	Migege	Ruyigi	Or
5	Coopérative Minière de Ruyigi II	Migege II	Ruyigi	Or
6	Data Mining	Twaruyeri	Buja-Rural	Or
7	DUKORANE NEZA	Bukurira IV	Muyinga	Or
8	DUSHIRINKOMEZI HAMWE	Muhira	Cibitoke	Or
9	KOMEZA IBIKORWA DUTERIMBERE	Ndera	Muyinga	Or
10	RABIYUJA	Nyarunazi	Ruyigi	Or
11	TERIMBERE NIHEZA	Gahararo	Muyinga	Or
12	TWISUGANYE	Musito	Kirundo	Or
13	TWIYUNGE	Gitenge	Cibitoke	Or
14	VAHASI DUKORE	Gahararo	Muyinga	Or
15	COGECOM Burundi	Nzewe	Kayanza	Wolframite
16	Coopérative Minière de Busoni	Bucanka	Kirundo	Wolframite
17	Coopérative Minière de Vumbi I	Gashara	Kirundo	Wolframite
18	Coopérative Minière de Vumbi II	Buhorana	Kirundo	Wolframite
19	TUNYWANE KIBAZI	Kibazi	Kirundo	Wolframite
20	YAGA TWUBAKE	Kijumbura	Muyinga	Wolframite



Comptoirs Licensed for Purchase and Export of the 3Ts and Gold (2014)

N°	Name of the Coopérative	Site	Mineral	License Number, Date
1	AUMERCAT	Bujumbura	Tantalite	10/2014 du 13/03/2014
2	BMS	Bujumbura	Tantalite	12/2014 du 13/03/2014
3	WMP	Bujumbura	Tantalite	42/2014 du 30/06/2014
4	SECOMIB	Ngozi	Tantalite, Cassiterite, Wolframite	45/2014 du 22/07/2014
5	ROSS INTERNATIONAL	Bujumbura	Tantalite, Cassiterite, Wolframite	52/2014 du 25/08/2014
6	BURUNDI GOLD EXPORT	Bujumbura	Gold	01/2014 du 23/01/2014
7	HIGH SPEED COMPANY	Bujumbura	Gold	13/2014 du 20/03/2014
8	AMEX	Bujumbura	Gold	26/2014 du 26/04/2014



# Annex

# 3

## Sites Visited

Province	Commune	Nom du Site	Coopérative	Type d'entité	N° d'agrement	Statut du Sit	Nbre Artisans	Latitude	Longitude	Substance Extraite
Cibitoke	Buganda	Murambi	Coop. Minière de Cibitoke	Coopérative	51/2014 du 12/08/2014	Formel		2°54'06,8"	29°08'15,3"	Cassitérite
Cibitoke	Buganda	Murambi-Ruyaga	TUBANE NEZA	Coopérative	39/2014 du 02/06/2014	Formel		2°53'36,5"	29°08'02,1"	Cassitérite
Cibitoke	Buganda	Ruhagarika	Coop. Minière de Cibitoke	Coopérative	47/2014 du 11/08/2014	Formel		2°55'17,8"	29°09'22,1"	Coltan
Cibitoke	Buganda	Ruhagarika-Muhetso	ISI YACU N'ITERAMBERE	Coopérative	41/2014 du 10/06/2014	Formel	15	2°55'10,3"	29°09'22"	Coltan
Cibitoke	Bukinanyana	Muhuhuri	CODEMIBU	Coopérative	44/2014 du 22/06/2014	Formel	60	2°50'52,5"	29°22'10,5"	Coltan
Cibitoke	Murwi	Mushanga-Rwako	ISI YACU N'ITERAMBERE	Coopérative	36/2014 du 26/05/2014	Formel	15	2°53'32,0"	29°08'37,3"	Coltan
Kayanza	Kabarore	Kibuba	TAMINCO	Société minière		Formel	72	2°47'34,0"	29°35'29,3"	Cassitérite
Kayanza	Kabarore	Ryamukona	TAMINCO	Société minière		Formel	60	2°44'42,1"	29°35'40,5"	Cassitérite
Kayanza	Kabarore	Kidunduri	CDP	Coopérative	53/2014 du 11/09/2014	Formel	150	2°50'14,6"	29°31'56,6"	Coltan
Kayanza	Kabarore	Mugera	Coop. Minière E.R.M.	Coopérative	56/2014 du 02/10/2014	Formel		2°51'35,4"	29°32'04,9"	Coltan
Kayanza	Kabarore	Kivuvu	TAMINCO	Société minière		Formel	119	2°49'21,6"	29°34'0,05"	Coltan+Cassitérite
Kayanza	Kabarore	Munega	TAMINCO	Société minière		Formel	192	2°50'01,3"	29°33'05,0"	Coltan+Cassitérite
Kirundo	Busoni	Mpinga	Coop. Minière de Busoni	Coopérative	30/2014 du 13/05/2014	Formel	70	2°29'44,1"	30°13'14,4"	Cassitérite
Kirundo	Busoni	Murehe	TAMINCO	Société minière		Formel	278	2°23'04,8"	30°13'56,1"	Cassitérite
Kirundo	Busoni	Gatete	TAMINCO	Société minière		Formel	30	2°22'49,2"	30°15'04,3"	Coltan
Kirundo	Busoni	Gitete	AUMERCAT MINING	Coopérative	55/2014 du 02/10/2014	Formel	30	2°28'08,0"	30°20'38,9"	Coltan
Kirundo	Busoni	Nyarundende	HEMA	Coopérative	48/2014 du 11/08/2014	Formel	50	2°34'50,3"	30°12'59,3"	Wolframite
Kirundo	Busoni	Nyabisaka		Groupe d'Individus		Informel		2°32'04,3"	30°14'37,5"	Wolframite
Kirundo	Bwambarangwe	Budahunga-Ngomo	Data Mining	Coopérative	32/2014 du 08/05/2014	Formel	10	2°33'27,1"	30°19'4,2"	Wolframite
Kirundo	Bwambarangwe	Kibazi I		Groupe d'Individus		Informel	5	2°31'10,3"	30°24'03,0"	Wolframite
Kirundo	Bwambarangwe	Rupfuha		Groupe d'Individus		Informel	36	2°34'27,7"	30°19'28,1"	Wolframite
Kirundo	Gitobe	Cumba	Coop. Minière de Gashoho	Coopérative	50/2014 du 11/08/2014	Formel	100	2°38'59,8"	30°09'45,1"	Wolframite
Kirundo	Ntega	Rwarama	TWITEZIMBERE	Association		Informel	6	2°34'19,8"	29°58'18,6"	Cassitérite
Kirundo	Ntega	Buniha		Groupe d'Individus		Informel	20	2°40'21,8"	29°58'58,4"	Cassitérite
Kirundo	Ntega	Buringa I		Groupe d'Individus		Informel	40	2°37'46,7"	29°58'14,3"	Cassitérite
Kirundo	Ntega	Buringa II		Groupe d'Individus		Informel		2°37'47,1"	29°58'23,9"	Cassitérite
Kirundo	Ntega	Buringa III		Groupe d'Individus		Informel	42	2°37'48,8"	29°58'29,0"	Cassitérite
Kirundo	Ntega	Rugese		Groupe d'Individus		Informel	100	2°35'22,5"	29°57'47,4"	Cassitérite
Kirundo	Ntega	Buvukana	DUTEZANYIMBERE	Coopérative	08/2014 du 03/03/2014	Formel	50	2°38'26,1"	29°57'47,0"	Coltan
Kirundo	Ntega	Bugorora		Groupe d'Individus		Informel	2	2°40'06,0"	29°59'54,1"	Coltan
Kirundo	Ntega	Runyankezi		Groupe d'Individus		Informel	7	2°39'49,5"	29°58'16,6"	Coltan
Kirundo	Vumbi	Canika		Groupe d'Individus		Formel	7	2°37'33,5"	30°09'52,6"	Wolframite
Kirundo	Vumbi	Kabuye-Shororo	Coop. Minière de Vumbi	Coopérative	49/2014 du 11/08/2014	Formel	11	2°46'13,3"	30°06'28,0"	Wolframite
Muyinga	Butihinda	Buhorana		Groupe d'Individus		Informel		2°38'10,9"	30°21'23,8"	Wolframite
Muyinga	Butihinda	Rurembo II		Groupe d'Individus		Informel		2°42'10,9"	30°19'30,2"	Wolframite
Muyinga	Gashoho	Bonero	DUFATANE MUNDA	Coopérative	59/2014 du 15/10/2014	Formel	50	2°44'12,8"	30°14'02,7"	Wolframite
Muyinga	Gashoho	Murama	Data Mining	Coopérative	33/2014 du 19/05/2014	Formel	100	2°43'15,0"	30°12'13,2"	Wolframite
Muyinga	Gasorwe	Butirabura		Groupe d'Individus		Informel	15	2°51'07,8"	30°12'32,1"	Wolframite
Muyinga	Giteranyi	Gisozi	TWIYUBAKE GISOZI	Coopérative	34/2014 du 26/05/2014	Formel	30	2°30'48,6"	30°24'16,7"	Wolframite
Muyinga	Giteranyi	Kuwinkona	SECOMIB	Coopérative	23/2014 du 17/04/2014	Formel	200	2°26'02,8"	30°29'48,3"	Wolframite
Muyinga	Giteranyi	Rwamirambol	DUKEREBUKE MW'ITERAMBER	Coopérative	38/2014 du 26/05/2014	Formel	260	2°25'52,2"	30°29'54,3"	Wolframite
Muyinga	Giteranyi	Rwamirambo	COREMIBU	Coopérative	18/2014 du 01/04/2014	Formel	65	2°25'28,1"	30°30'08,7"	Wolframite
Muyinga	Giteranyi	Kagatil		Groupe d'Individus		Informel	12	2°20'37,8"	30°27'28,5"	Wolframite
Muyinga	Giteranyi	Kagatill		Groupe d'Individus		Informel	10	2°20'17,7"	30°27'28,5"	Wolframite
Muyinga	Giteranyi	Kijumbura		Groupe d'Individus		Informel	30	2°20'13,5"	30°27'21,6"	Wolframite
Muyinga	Giteranyi	Rucikiri I		Groupe d'Individus		Informel	6	2°24'44,1"	30°30'29,2"	Wolframite
Muyinga	Giteranyi	Kagatill		Groupe d'Individus		Informel	15	2°20'14,2"	30°27'29,2"	Wolframite
Muyinga	Giteranyi	Rucikiri II		Groupe d'Individus		Informel	80	2°25'22,7"	30°30'11,9"	Wolframite
Ngozi	Busiga	Myansi-Mihama	TURIKUMWE	Association		Informel	7	2°49'46,7"	29°43'31,4"	Cassitérite
Ngozi	Busiga	Nyamahabwe I		Groupe d'Individus		En cours	100	2°50'25,9"	29°42'51,6"	Cassitérite

Province	Commune	Nom du Site	Coopérative	Type d'entité	N° d'agrement	Statut du Sit	Nbre Artisans	Latitude	Longitude	Substance Extraite
Ngozi	Busiga	Nyamahubwe II		Groupe d'Individus		En cours	31	2°49'50,5"	29°43'05,6"	Cassitérite
Ngozi	Busiga	Senyamisangel	Société Burundi Minerals Su	Coopérative	35/2014 du 26/05/2014	Formel	100	2°49'26,8"	29°43'53,1"	Coltan
Ngozi	Busiga	Senyamisangell		Groupe d'Individus		Informel	20	2°49'09,0"	29°43'56,2"	Coltan
Ngozi	Kiremba	Nyamarobe	COGECOM	Coopérative	589/2014 du 15/10/2014	Formel	27	2°46'41,8"	30°01'26,6"	Cassitérite
Ngozi	Marangara	Kimana		Groupe d'Individus		Informel	100	2°44'40,4"	30°01'08,6"	Cassitérite
Ngozi	Marangara	Muhona		Groupe d'Individus		Informel	15	2°43'57,0"	30°00'52,6"	Coltan
Ngozi	Marangara	Santa-Maria		Groupe d'Individus		Informel	10	2°44'25,1"	30°00'52,0"	Coltan
Ngozi	Marangara	Burenga-giti		Groupe d'Individus		Informel	7	2°44'43,1"	30°01'06,0"	Coltan+Cassitérite
Ngozi	Tangara	Musaza	SECOMIB	Coopérative	22/2014 du 17/04/2014	Formel	50	2°56'10,3"	30°01'26,3"	Wolframite
Muyinga	Butihinda	Bukurira	KAZOZKEZA	Coopérative	06/2014 du 03/03/2014	Formel	630	2°42'58,7"	30°19'23,7"	Or
Muyinga	Butihinda	Bukurira 2	TWIKENURE	Coopérative	05/2014 du 03/03/2014	Formel	630	2°43'21,8"	30°18'46,7"	Or
Muyinga	Butihinda	BUKURIRA 4		Association		Informel	120	2°43'02,8"		Or
Cibitoke	Mabayi	Ruhororo	ABAHUZABIKORWA	Coopérative	04/2014 du 19/02/2014	Formel	100			Or



