

On behalf of

BMZ



Federal Ministry
for Economic Cooperation
and Development



In Focus : BGR Support for Mineral Certification in the African Great Lakes Region



In Focus:

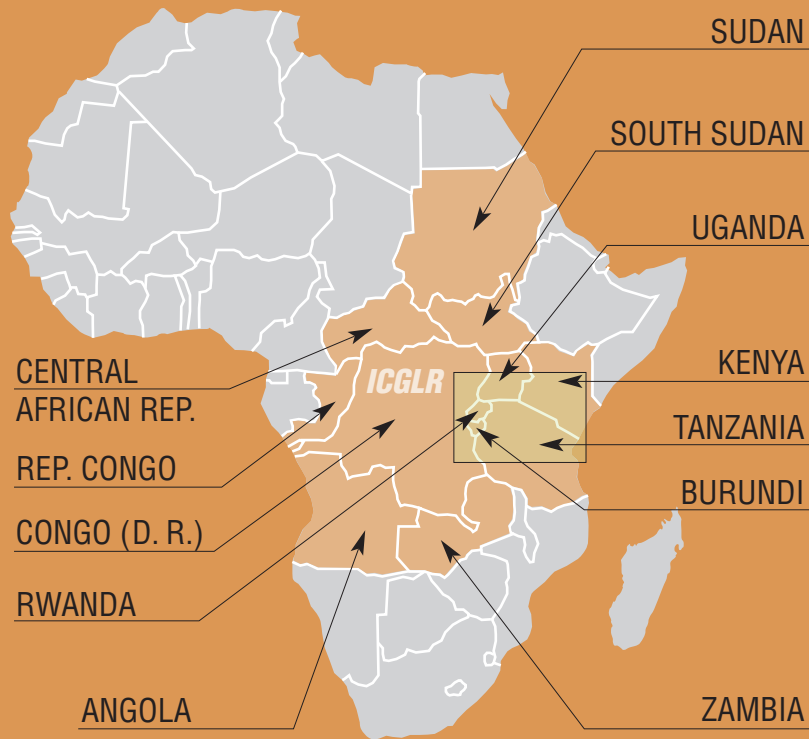
**BGR Support for Mineral Certification
in the African Great Lakes Region**





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Member States of the International Conference on the Great Lakes Region

Mineral Trade Routes in the Great Lakes Region



0 500 km

- Major city
- Capital
- International border

- Main road
- Secondary road
- Railway
- Water transport
- ⚓ Port



1 Overview

Challenges

The connection between minerals, war and conflict in the Great Lakes Region of Central Africa is well documented. Reports from the UN Group of experts on the Democratic Republic of the Congo (DRC), and reputable NGOs, have demonstrated how rebel groups and renegade military units illegally tax the exploitation and trade of certain high-value minerals, among them gold, cassiterite (tin), wolframite (tungsten) and coltan (tantalum), coining the term “conflict minerals”.

The profits from the illegal production and trade of conflict minerals contribute to keeping these groups armed and equipped, thus giving them a reason to continue the conflict. Actual fighting is currently limited largely to the Kivu regions in the east of the Democratic Republic of the Congo, but the destabilizing effects spill out across the region.

Neighbouring nations including Rwanda and Uganda have been implicated in the undocumented export of minerals from the DRC resulting in a stigmatization of minerals produced in the whole region.

Therefore, all countries in the region will be affected by the provisions of the US Dodd-Frank Act (see page 8), designed to keep consumer products “conflict free” as far as the conflict minerals mentioned above and their derivatives are concerned.

Across the region, miners involved in artisanal and small-scale mining (ASM) produce these minerals, often at unregulated, unsafe mine sites: child labour is common, remuneration often unfair, environmental standards lax to non-existent, and mining has adverse impacts on local communities.

The difficulty of regulating and controlling the informal, low-productivity ASM sector means governments frequently lose out on their due share of taxation on these minerals.

On the other hand, ASM provides a livelihood for a great number of people in rural areas of the region, especially in eastern DRC, where little employment alternatives exist.

The German Federal Institute for Geosciences and Natural Resources (BGR) contributes to address these challenges through the development and support of ASM mineral certification on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).

BGR supports local partners in Rwanda and DRC to implement a mineral certification system, and contributes to setting up a regional certification mechanism under the umbrella of the International Conference on the Great Lakes Region (ICGLR).



United States Conflict Minerals Legislation

The US Dodd–Frank Wall Street Reform and Consumer Protection Act, was passed and signed into law on July 21, 2010.

Title XV, Section 1502 of the Act contains a series of provisions designed to control US-listed companies' use of "conflict minerals". For the purposes of the act, "conflict minerals" are defined as coltan (columbite-tantalite), cassiterite, wolframite, gold and their derivatives.

The US law applies only to public companies listed on the US stock exchange and required to file quarterly reports to the Securities and Exchange Commission (SEC). It is thus unlikely to apply directly to small-scale mineral producers and traders or even smelters. Nonetheless, its effects will be felt in the region as they indirectly affect all players in the mineral chain.

The law requires affected companies to disclose as part of their regular reporting whether any conflict minerals – required for the functionality of any of their products – were sourced in the DRC or any adjoining country.

If a conflict mineral was used, and was sourced in the DRC or adjoining country, the company is required to prepare and submit to the SEC the following:

1. a report describing the measures taken by the reporting company to exercise due diligence on the source and chain of custody of the conflict mineral;
2. an independent audit of the above report;
3. a description of the products manufactured by the reporting company or manufactured for it by a contractor that are not 'DRC conflict free' (that is, the products that do contain conflict minerals from the DRC or one of its immediate neighbours);
4. a description of the facilities used to process the conflict minerals;

5. the country of origin of the conflict minerals;
6. a description of the efforts employed by the reporting company to determine the mine or location of origin of the conflict minerals 'with the greatest possible specificity'.

Finally, the law requires the reporting company to make all of this information publicly available on the company's website.

The law is likely to have a significant effect on US-listed manufacturers of consumer electronics and communication technologies (e.g., computers, cell phones) but other industries (e.g., jewellery, automotive) are affected as well.

Faced with the possibility of some of their consumer products being publicly labelled as DRC conflict products, these companies are likely to put heavy pressure on their suppliers to validate their sourcing practice, with the results cascading up the mineral chain. Some smelters and purchasers may disengage from the region. Those that remain will certainly demand that mineral exporters be in a position to thoroughly document the sources of the materials they are selling, and be able to demonstrate that these sources do not involve conflict.

With the advent of the US bill, and then its passage, interest on the part of companies and governments in the region in mineral traceability and certification increased significantly. Indeed, a rush has developed to have an adequate response in place by the time US legislation goes into effect.

However, it should be noted that supply chain due diligence is a progressive practice based on on-going risk assessments where stakeholders need to be given an adequate response time.



Rwanda, Democratic Republic of the Congo and ICGLR

The BGR currently supports two programs in the mineral sector in the African Great Lakes Region on behalf of the German Federal Ministry for Economic Cooperation and Development: one in the Democratic Republic of the Congo, the other in support of the ICGLR. These programs are based on experiences gained in the implementation of a pilot-project in Rwanda.

In both countries, the Certified Trading Chains (CTC) projects are designed to develop the concept of mineral certification with partners on the ground and adapt it to local conditions, creating a practical certification framework capable of being implemented in the artisanal mining sector.

Implementation is done in a progressive way, starting at selected pilot mine sites to demonstrate feasibility, with subsequent broadening across the mining sector of the respective countries by member state authorities, supported by BGR. To this end, CTC standards are incorporated into national regulations. Lessons learned from the pilot projects also provide input for the design and implementation of the ICGLR regional mineral certification mechanism.

The CTC pilot project in Rwanda has been carried out in cooperation with the Rwanda Geology and Mines Authority (OGMR, today Rwanda Natural Resources Authority, RNRA). The project in the DRC has been developed in cooperation with the DRC Ministry of Mines, and the Service d'Assistance et d'Encadrement du Small Scale Mining (SAESSCAM), the DRC agency in charge of formalizing and assisting artisanal miners.



International Support for Certification and CTC

In 2005, the United Nations Group of Experts on the DRC recommended in their annual report that a traceability and certification system should be developed for high-value minerals in the Great Lakes Region. The Group called for a pilot study to begin the process.

In 2006, the 11 African heads of state from the International Conference on the Great Lakes Region (ICGLR) adopted the Protocol Against the Illegal Exploitation of Natural Resources, which calls on member states to establish a regional mechanism with “accredited standards as regards natural resource exploitation and [...] provisions on certification of origin [...] to serve as a tool for combating the illegal exploitation of natural resources”.

In 2007, the final communiqué of the G8 summit in Heiligendamm, Germany, expressed support for “a pilot study [...] concerning the feasibility of a designed certification system for selected raw materials” which was realized from 2008 to 2011 through the CTC pilot project in Rwanda.





2 What is Certification ? What is CTC ?

What is Certification ?

Certification stems from the desire of responsible consumers to ensure that the products they use every day, and the procedures employed in their production chain live up to certain standards.

For a growing portion of the consuming public, it is important to know that a product they are using was not made in a sweatshop or by child labourers; they want to make sure the product or the involved production processes do not harm the environment; they prefer transparently produced goods that contribute to sustainable development in the local communities where they were produced. Moreover they demand products that do not contribute to war or conflict and associated human rights abuses.

Manufacturers of these products are often anxious to fill this market demand and to safeguard their reputation. Meeting a certain standard is a way to make their product stand out from others, and so gain a competitive reputational advantage in the marketplace. Sometimes, by meeting a certain standard, a product commands a price premium in the marketplace. Sometimes, meeting a certain standard is the only way to ensure a continued place for a product in the marketplace.

At its core, certification is a voluntary agreement between consumers and producers. Consumers agree to limit their consumption to, or especially seek out, products that meet an agreed-upon standard.

Producers pledge to manufacture or supply their product according to that same standard. Both sides benefit.

In order to assure consumers that producers are keeping their pledge, verification of standard compliance is required. To this end, producers might agree to let an independent external expert – an independent auditor – examine their operations and verify that the standard is being met.



Different Certification Schemes

Many certification schemes with different standards exist, depending on what the certification scheme stakeholders consider important.

For example, the **Forestry Stewardship Council (FSC)** certifies that wood products are produced in accordance with certain social and environmental standards.

The **Fair Labor Association (FLA)** certifies that the workers manufacturing running shoes, T-shirts and other textiles are paid decent local wages and provided with dignified working conditions.

The **Kimberley Process Certification Scheme (KPCS)** certifies that rough diamonds are not “conflict diamonds” and that they do not profit rebel groups or help to buy arms in the country where they were mined.





Minerals and the Mineral Trading Chain

The Target Minerals

Artisanal mining constitutes an important livelihood base in developing countries worldwide with artisanal miners producing high value minerals from antimony to diamonds and gold.

The CTC projects in the Great Lakes Region focus on the so-called “conflict minerals” **cassiterite**, **coltan**, **wolframite** and **gold**.

These minerals are widely used in the consumer marketplace, and ASM producers contribute a significant fraction of the world production of some of these minerals.

Gold

ASM gold is an important part of the mineral trade in Central Africa, and is also widely implicated in the financing of armed groups.

Gold is a more difficult mineral to certify, due to its high value to weight ratio, which makes it easy to smuggle. It can be melted easily in the country of production and has a large and diverse pool of buyers spread around the world. Also gold can be freely interchanged for cash. The CTC program includes gold in the DRC and other nations of the Great Lakes Region. The CTC approach in the DRC involves the development of a special set of procedures, specific to ASM gold producers and traders.



Cassiterite

- processed into tin
- used for solder in consumer electronics (e.g., cell phones, computers) and in the tin-plating industry
- up to 50 % of global production comes from ASM sources

Coltan

- short for columbite-tantalite
- processed into tantalum (and niobium)
- used in micro-capacitors in consumer electronics (e.g., cell phones) and for alloys (superalloys)
- 26 % of global production comes from ASM sources

Wolframite

- processed into tungsten
- wide application range including electronics, alloys, and – combined with carbon – to form tungsten-carbide (hard material, e.g., for machine tools and drilling machinery)
- more than 6 % of global production comes from ASM sources



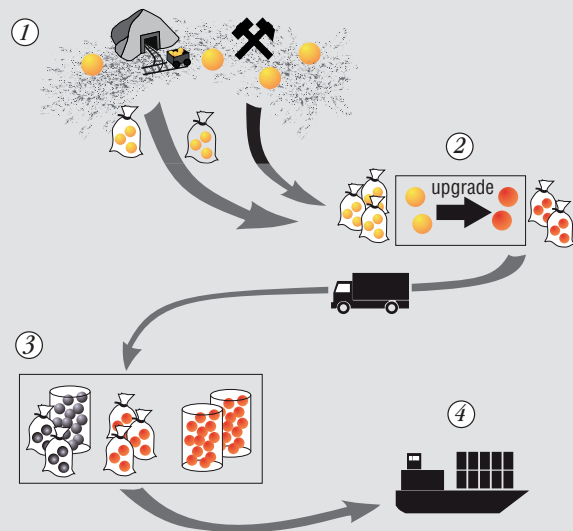
The Mineral Trading Chain and Mineral Traceability

The mineral trading chain describes the step by step process by which minerals are extracted, then processed, sold, and transformed on their journey from the mine site to their final destination in a consumer product or industrial process.

The mineral trading chain varies from country to country and from mineral to mineral. The exemplary diagram shows a schematic version of that portion of the mineral trading chain that lies within Rwanda's borders. It begins at the mine site where artisanal miners dig the ore. Usually, miners will do some basic field processing (washing) to produce a mineral pre-concentrate which is filled into sacks. These sacks are then weighed, tagged, and collected at a nearby central storage facility where they might undergo further processing. Subsequently, minerals are transported to a central mineral hub (usually Kigali) where a processor aggregates minerals from many different mine sites, and processes the concentrates to export grade, prior to sealing them into drums and trucking them as containers to the seaports of Dar-es-Salaam (Tanzania) and Mombasa (Kenya).

Mineral traceability means that for each shipment of mineral concentrate that is exported, the mineral producer or trader can trace its contents back up the trading chain to determine the specific mine site (or sites) where the minerals were produced. To this end, mineral sacks are tagged, and traceability documentation (e. g., delivery notes) is generated when the minerals are aggregated, and sent along with each shipment. In addition, traceability may be verified by employing the Analytical Fingerprint (AFP) method developed at BGR (see page 33). Transporting and trading minerals without proper traceability measures is prohibited in Rwanda.

A typical mineral trading chain as applicable for CTC companies in Rwanda



- ① Artisanal miners extract ore from dig sites on concessions**
 - extracted ore may be washed / ground sluiced on site to obtain ore concentrates
 - miners may temporarily store concentrate near dig site for transport aggregation
 - transport as 50 kg sacks or smaller units (depending on size of operation)
- ② Central company storage / processing facility (on-site or major town)**
 - concentrate aggregation from multiple sources (from within the same company), typically into 50 kg sacks
 - trucking to mineral hub
- ③ Mineral hub (Kigali, Gisenyi): trader or logistics partner**
 - formal grade analysis, possibly further concentrate upgrading
 - aggregation of multiple sources (from same or different producers or traders) to fill drums and 22 t containers
 - formal export procedure, trucking to exit port
- ④ Exit port (Dar-es-Salaam, Mombasa)**
 - ore concentrates shipped to overseas customers (e. g., smelters)

What is CTC ?

The Certified Trading Chains (CTC) project sets and enforces standards for Artisanal and Small-Scale Mining (ASM) and certifies that the minerals and metals produced by ASM meet five basic principles.

I. Traceability

Origin and volumes of produced and traded minerals are fully traceable; company payments to host governments are legal and transparent.

2. Fair working conditions

No child labour, fair remuneration and fair working conditions, continual improvement in occupational health and safety measures.

3. Security and human rights

The mineral producer ensures security on company sites whilst respecting human rights.

4. Community development

The mineral producer consults with local communities and contributes to their social, economic and institutional development, taking into account gender sensitive aspects.

5. Environment

The mineral producer seeks continual improvement of its environmental performance.

These standards refer to mining sites as well as the associated trading chains, thus contributing to the supply chain due diligence efforts of mineral producers and their clients.



How does it work ?

How does CTC work ?

The overall goal of the CTC concept is to assure industrial consumers through certification that ASM mineral producers mine and trade minerals according to accepted, public standards. The standards provide benefits and a sustainable development perspective for workers, affected communities, as well as local governments, and meet international supply chain due diligence expectations on traceability and transparency.

Standards are established through national and international consultations among the industry, government agencies, civil society and other relevant stakeholders. Several rounds of consultation and feedback are required to arrive at a set of standards that is both practical and rigorous. Importantly, the standard set should be open for modifications once practical on-the-ground experience through CTC implementation provides lessons learned – this has been the case in Rwanda.

Compliance of mine sites and supply chains with the standards is verified through an audit process which includes determining the strengths and weaknesses of individual mineral producers. This allows the formulation of improvement recommendations for the audited operation. In the framework of the CTC projects, these audits also serve as capacity building measures for the national authorities charged with mine inspections, and provide a reality check for the developed certification standards as a basis for possible further refinement.



Throughout the process, technical assistance is provided by BGR to mineral producers and their clients in order to follow up the improvement suggestions established during the audit; the progress on improvement is verified through a regular, periodic audit process. Audit reports form the basis for CTC certification of specific mine sites, provided the audited operation meets pre-defined performance targets with regard to CTC standards. Once operational, CTC audit results will also feed into the ICGLR mineral certification framework as far as national mine site certification is concerned.



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3 Certified Trading Chains (CTC) in Rwanda

Aim of the Project

The CTC pilot project in Rwanda was developed as a cooperative effort between BGR and Rwanda Geology and Mines Authority (OGMR) and participating mineral producers. The pilot project ran from November 2008 to June 2011.

For Rwandan authorities, the aim of the CTC project was to benefit from the introduction of standards and guidelines applicable to the ASM sector in order to certify supply chain due diligence and the conflict-free origin of their mineral products, while also promoting sustainable development in the Rwandan mining sector.

For BGR, the pilot project was an opportunity to initiate the CTC concept on the ground with a number of voluntary mineral producers as the basis for a broader implementation of certification at the whole mining sector level.

The Rwanda CTC pilot project is comprehensively documented online at:

www.bgr.bund.de/mineral-certification

Project Overview

In a broad overview, the Rwanda CTC pilot was implemented in a series of steps.

Step 1

Elaboration and Adaptation of CTC Standards

The set of CTC standards, based on accepted international guidelines (e.g., OECD), was developed over the course of a year or more, with several workshops at the national and international scale, involving stakeholders from government, industry and civil society.

The final working draft included 20 standards, grouped into five principal areas (see page 20). These standards were continuously adapted according to practical experience and lessons learned from the project. The standards were integrated into the Rwandan Mining and Quarrying Code of Practice of the Rwanda Bureau of Standards.

At a regional level, CTC standards together with OECD standards also form the basis for the ICGLR mineral certification criteria.

The CTC Working Standard Set

Principle

1

Origin and volumes of produced and traded goods as well as company payments to host government are transparent.

- 1.1 Origin and production volume of minerals from the mine site throughout the trading chain are traceable.
- 1.2 Meet fiscal obligations required by host government law.
- 1.3 Publish all payments made to government according to internationally accepted standards.
- 1.4 Actively oppose bribery and fraudulent payments.

Principle

2

The company does not use child labour and ensures fair remuneration and work conditions as well as continual improvement in health and safety measures for all employees.

- 2.1 Pricing and distribution systems for artisanal miners and sub-contractors, as well as salary levels for employees are fair, legal, and regulated.
- 2.2 Ensure that no child labourers (aged under 16) work on company sites.
- 2.3 Support workers' organizations and collective bargaining.
- 2.4 Provide essential protective safety equipment to workers and production services to support the work of artisanal miners.
- 2.5 Ensure occupational health in all company operations as well as insurance for workers.
- 2.6 Provide training for workers on safety, health and effective use of on-site facilities.

Principle

3

The company ensures security on company sites whilst respecting human rights.

- 3.1 Provide sufficient and adequately trained security forces.
- 3.2 Undertake security risk assessments.

Principle

4

The company consults communities in which it operates and contributes to their social, economic and institutional development taking gender into account.

- 4.1 Interact regularly with communities and local governments to address grievances and other common concerns.
- 4.2 Support local enterprises to supply company operations.
- 4.3 Support integrated development programs in nearby communities for livelihood security, social and physical infrastructure, and capacity building.
- 4.4 Obtain free, prior and informed consent before acquiring land or property.
- 4.5 Understand the situation and perspectives of the women in the company's area of influence, and design and implement company operations in a gender sensitive way.

Principle

5

The company seeks continual improvement of its environmental performance.

- 5.1 Carry out an environment impact assessment as the basis for developing an environmental management and protection plan and strategy.
- 5.2 Properly treat or dispose of hazardous material and waste from its site(s).
- 5.3 Provide a plan for mine closure, and make provision for the full costs of rehabilitation upon closure.

Step 2 Baseline Audits and Recommendations

Baseline audits were performed at the mining concessions of five volunteer mineral producers in Rwanda in the 2009–2011 period.

The purpose of the baseline audits, carried out by a professional, independent auditor, was to

- obtain a general assessment of the status quo of the Rwandan ASM sector,
- field-test and adapt the CTC standards,
- provide improvement suggestions to Rwandan mineral producers in order to meet CTC certification requirements.

Step 3 Expert Monitoring and Technical Advice for Participants

BGR further supported consulting by international experts in key issues – identified in the baseline audits – for mineral producers participating in the CTC project.

These key issues comprised mineral traceability, occupational health and safety, gender sensitivity, bribery and fraudulent payments, as well as environmental impact declarations.



Step 4 CTC Compliance Audits and Certification

Once the mineral producers participating in the project had been given sufficient time to reflect on their performance in the baseline audit assessments, and to implement improvement suggestions by the auditor and the consultants (or on their own initiative), the compliance of their mine sites and the associated trading chains with regard to the CTC standard set was assessed through an independent audit.

Depending on their performance in the compliance audits, the Rwanda Bureau of Standards then issued the Rwandan mineral producers either a Certificate of CTC Compliance or a Certificate of CTC Progress. The former certificate, valid for a period of three years, certifies compliance with CTC standards, whereas the latter certificate acknowledges good faith efforts by mineral producers towards becoming fully compliant.



Project Accomplishments

Established certification of artisanal mineral production in Africa

- CTC, including standard setting, a credible audit mechanism, and the certification process itself, proved to be practical and effective on the ground, and a possible solution to interrelated issues associated with African ASM.

Established a strong working partnership with the government of Rwanda

- Rwanda's full participation has been crucial to national ownership and long-term sustainability of certification.

Developed a practical certification standard

- Standards, adapted through extensive multi-stakeholder consultations and practical experience, were shown to be appropriate to artisanal mining realities.

Assisted mineral producers in their efforts to comply with CTC standards

- Mineral producers were assisted with mineral traceability, gender sensitivity, environmental impacts of their operations, occupational health and safety, and avoiding bribery and fraud.



Established template for third-party auditing of ASM in Africa

- Terms of reference, accreditation, and reporting standards for third party audits of ASM producers were developed;
- Audit procedures applicable to the ASM sector, and generating credible, reproducible results were developed;
- Robust evaluation framework, including production plausibility checks, Analytical Fingerprint (AFP), and cross-verification procedures, was designed in order to detect fraud attempts with respect to mineral origin;
- Necessity for an audit review process to ensure acceptance of audit findings and, thus, certification by all stakeholders was demonstrated.



Next Steps

In March 2011, the Rwanda Bureau of Standards integrated the CTC standards into the national Mining and Quarrying Code of Practice as a basis for the broad-scale implementation of the CTC scheme in Rwanda. CTC standards have also been integrated into ICGLR mineral certification criteria and will thus be applicable across the entire Great Lakes Region of central Africa. In this context, BGR is going to support the further dissemination of CTC in the Great Lakes Region as part of the implementation of the ICGLR mineral certification system in selected member states through a new project which started in 2011.

Partner organization



RWANDA GEOLOGY AND
MINES AUTHORITY (OGMR)



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COOMINBE
COOPERATIVE MINIERE DE
NYAMBEMBE

4 Certification in the Democratic Republic of the Congo (DRC)

Since 2009, BGR supports the DRC Ministry of Mines in developing a mineral certification system in the Democratic Republic of the Congo on the background of the German-Congolese cooperation program “Strengthening of Transparency and Control of the Natural Resource Sector in the DRC”.

The BGR program component is based on an adapted CTC approach, focussing on the eastern provinces of the DRC, and working in partnership with the DRC Ministry of Mines as well as two DRC government mining agencies, CEEC (Centre d’Evaluation, d’Expertise et de Certification) and SAESSCAM (Service d’Assistance et d’Encadrement du Small Scale Mining).

CEEC registers, values and taxes DRC production of diamonds and other high-value minerals, including gold, coltan, cassiterite and wolframite.

SAESSCAM, was established in 2003 to assist and formalize artisanal miners.

The ASM sector in the DRC is larger and less formalized than in Rwanda. According to estimates, several

hundred thousand artisanal miners work in more than 350 small-scale mines in the Kivu provinces of eastern DRC. Although the December 2011 report of the UN Group of Experts on the DRC observed an improvement in the overall security situation, conflict and conflict-financing remain serious problems in the eastern DRC’s ASM sector, mainly due to the absence of government control over certain mining areas and limited institutional capacities.

The certification project in the DRC aims to contribute to the development and implementation of a mineral traceability system, building the capacity of DRC mining institutions, and to integrate certification into national legislation.

As with CTC in Rwanda, the DRC certification project developed a set of standards which will be applied to pilot sites and cooperatives, before implementing the standards in the entire mining sector as part of national legislation. To this end, the certification project in the DRC has elaborated a standard set that largely mirrors CTC standards in Rwanda and is thus applicable in principle to the conditions of ASM in the DRC, including the conflict dimension.

Public consultations and workshops on these standards continued throughout 2009–2010. The standards, forming part of two comprehensive certification and traceability manuals for tantalum, tin and tungsten (TTT) minerals and gold, were formally signed into law by the DRC Minister of Mines in June 2011.

The second step in the DRC project schedule – applying the standards to a volunteer set of producers through the baseline audits of pilot sites – have started at the end of 2011 with a one year delay due to an artisanal mining ban declared by the Congolese president for the provinces of South Kivu, North Kivu and Maniema in September 2010, and the impact of the Dodd-Frank Act.

After the lifting of the ban in April 2011, baseline audits were conducted starting with the Kalimbi Mine in Nyabibwe (South Kivu), and continuously extended to other mine sites in South and North Kivu, Katanga, and Maniema.

In cooperation with international stakeholders (e.g., the UN, IPIS) the certification project in DRC is also developing a comprehensive mapping database of DRC artisanal dig sites, including mapping estimates on minerals produced and number of miners employed, with regular updates on the security situation. This will serve as a necessary tool to qualify any mine site for certification.

In order to develop capacities and strengthen the local authorities, one project component aims at training SAESSCAM officials, comptoirs and small-scale mining communities.





As with the CTC pilot project in Rwanda, one longer term goal of the DRC pilot is to establish national certification mechanisms that can be integrated into the regional certification mechanism being developed by the ICGLR. To this end, BGR's DRC project staff were actively involved in consultations on the ICGLR certification manual in Bujumbura in April 2011.

Partner organization

République Démocratique du Congo



MINISTÈRE DES MINES

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5 Certification and the International Conference on the Great Lakes Region (ICGLR)



The International Conference on the Great Lakes Region is an intergovernmental organization bringing together the governments of Africa's Great Lakes Region to promote the establishment of peace, stability and development.

Its member states include Angola, Burundi, Central African Republic, Republic of Congo, Democratic Republic of the Congo, Kenya, Rwanda, Sudan, South Sudan, Tanzania, Uganda and Zambia. The Secretariat of the ICGLR is headquartered in Bujumbura, Burundi.

At its founding in 2006, the ICGLR committed itself, amongst others, to establishing a certification mechanism for natural resources from the region. During 2010, the ICGLR and its partners, supported by German International Cooperation (GIZ), elaborated a plan for regional mineral certification to be implemented as part of its Regional Initiative Against the Illegal Exploitation of Natural Resources (RINR).

The ICGLR scheme contains four key elements:

1. Mineral tracking from mine site to point of export (the implementation of which is left to member state governments and their partners, e.g., iTSCi).
2. Member states obtain data on regional mineral flows and transmit these to a central ICGLR database, which then analyses the data looking for imbalances between production and sales, or purchases and exports.
3. Independent third party auditing of mineral exporters based on a regional standard, with auditors and auditing standards managed by a committee with multi-sector representation (i.e. government, industry, civil society).

4. An investigator (“mineral chain auditor”) identifying anomalies, discrepancies, fraud, smuggling or any signs of more complex conflict financing associated with mineral production and trade.

The scheme includes certification standards based on CTC, and recommendations of the OECD due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas. These standards will be used to certify mine sites (under the oversight of national authorities) as well as mineral shipments exported from the region.

The four-part scheme, integrated into a comprehensive ICGLR certification manual, was approved by a conference of the ICGLR mining ministers in Nairobi in September 2010 and subsequently formally adopted by the ICGLR heads of state as noted in the Lusaka Declaration of December 15, 2010; stakeholders have been consulted at multiple workshops in the region and at an international level throughout 2011.

The ICGLR is thus now fully committed to bringing a regional mineral certification scheme into being. Fulfilling that commitment will involve players across the region with experience in certification to form strategic partnerships and work together to build the regional certification system.

Next Steps

Building on the foundations of the CTC Rwanda pilot project and development of the AFP method, the German Federal Ministry for Economic Cooperation and Development commissioned BGR to implement a support project to the ICGLR, scheduled for 2011–2015. The project supports the implementation of the RINR in Rwanda and other selected ICGLR member states, focusing on the tools “Regional Certification Mechanism” and “ASM Formalization”. Project implementation is coordinated with other supporters of the ICGLR, and shall also involve the Conference Secretariat itself. An agreement formalizing this support was signed in November 2010 by BGR and ICGLR.

Integrated into the Regional Certification Mechanism, the project also aims to make the Analytical Fingerprint (AFP) method available to ICGLR as a forensic tool to verify traceable and transparent mineral production and trade in the Great Lakes Region. AFP application will substantiate ICGLR oversight measures (e.g., audits, risk assessments) on the certification system. The project will progressively involve a full transfer of skills, technology, and ownership of the AFP method to the ICGLR and its partners.



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Partner organization



INTERNATIONAL CONFERENCE
ON THE GREAT LAKES REGION
(ICGLR)

Certification and laboratory
authorities in selected
ICGLR member states



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6 The Analytical Fingerprint (AFP)

The Analytical Fingerprint refers to the technical processes of identifying the origin of a mineral concentrate via laboratory analyses that compare its mineralogical and geochemical features with samples of known provenance stored in a mineral reference database. Developed in parallel to work on the CTC approach, AFP provides independent verification with respect to the origin and traceability of minerals.

As a first step of AFP analysis, several hundred grains of a given mineral pre-concentrate or concentrate are mounted on a polished section. The section is then run through the AFP lab procedure involving both scanning electron microscopy (SEM, allowing quantifying the mineralogical composition of the sample) and laser-ablation inductively-coupled-plasma mass spectrometry (LA-ICP-MS, where the geochemical and isotopic composition of individual mineral grains is determined).

The data is then analysed through a series of sequential tests that compare the test data to known sample characteristics contained in an AFP reference database maintained at BGR (or, in the future, ICGLR), thus narrowing down the specific characteristics of the sample to a single mine site. BGR's AFP team found that, in the case of coltan, the technique is capable of reliably distinguishing between individual dig sites no more than a few 100 meters apart within a given mining concession.

The AFP process initially focussed on coltan, but has been progressively extended to cassiterite and wolframite. It is thus possible to apply AFP to all mineral concentrates containing the TTT ores (tin, tungsten, tantalum) that are being extensively mined in Rwanda, the neighbouring Kivu provinces in DRC, and elsewhere.

Currently, the equipment and measurement routines for AFP are available at BGR's laboratory in Hannover and at other international laboratories. The German government has committed itself to establishing an AFP laboratory in central Africa, in cooperation with ICGLR and its member states, with data evaluation taking place directly at the ICGLR headquarters in Bujumbura.

At present, AFP analysis is not intended as a regular standard procedure to be performed on every single mineral shipment as part of a mineral certification system. Rather, AFP may either be used by mineral producers wishing to demonstrate the legitimate origin of their minerals ("positive certification") or as a forensic tool to detect anomalies and fraud attempts not captured by other traceability schemes. In the latter case, AFP analysis would take place within the framework of other due diligence measures (e.g., an audit or inspection by an ICGLR mineral chain auditor) associated with investigating the anomaly, allowing ICGLR to credibly investigate the matter and deciding on appropriate responses.



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7 Outlook

The CTC projects in Rwanda and the DRC have shown that a mineral certification mechanism, including independent audits, can be developed and applied at a realistic scale to ASM production in Central Africa. The partners in this effort included government authorities from Rwanda and the DRC, BGR, and mineral producers and traders. In cooperation with ICGLR, the standards and procedures developed in the pilot projects are to be integrated into a harmonized regional mineral certification framework.

Rwanda's Next Steps

For Rwandan authorities, CTC is a way of building capacity on issues they had identified as critical to their management of the Rwandan mineral sector while at the same time, and in cooperation with other partners (e.g., ITRI), also meeting international supply chain due diligence expectations. The CTC standard-set serves as a realistic guideline on responsible practice for the local ASM sector. In this context, the Rwanda Bureau of Standards has integrated the CTC standards into the national Mining and Quarrying Code of Practice, just as ICGLR has integrated the CTC standards into their regional mineral certification framework. As a next step, BGR will support the development and implementation of the ICGLR certification scheme in Rwanda and its application to the whole mining sector.

DRC's Next Steps

DRC authorities – including the Ministry of Mines, CEEC and SAESSCAM – will continue developing certification in South Kivu, North Kivu, Maniema and Katanga in cooperation with BGR. At the same time, these partners aim to integrate their developing certification systems into the overall regional certification mechanism. National and international partners in DRC, including BGR, will continue the mapping exercise of artisanal mine sites in eastern DRC and provide an initial assessment on the conflict status of these mine sites as a basis for more comprehensive certification efforts.

ICGLR's Next Steps

Based on the Regional Initiative Against the Illegal Exploitation of Natural Resources, ICGLR is committed to establishing a credible regional framework for mineral certification in the Great Lakes Region. ICGLR and its member states are now facing the challenge of implementing this certification scheme across the region in a timely manner. On-the-ground progress will require extensive cooperation with the minerals industry and will have to stand up to public scrutiny on a global scale in order to provide a credible link to downstream supply chain due diligence efforts, and satisfy concerned end users.

The German Development Cooperation (BGR and GIZ) and other partners are committed to supporting ICGLR in this challenging task in order to provide a basis for continuous responsible mineral sourcing from the Great Lakes Region.

General Outlook

Initially, the BGR developed CTC as a voluntary approach to certify supply chain due diligence and a conflict-free origin of mineral products, while also promoting sustainable development in the ASM sector. Thus, mineral certification goes beyond pure traceability by also introducing other benefits for the ASM sector, e.g., transparency of payments, basic social and human rights, environmental provisions and community development.

The CTC approach is not limited to a conflict-prone context. Compliance with the CTC standards guarantees acceptable mining conditions in ASM while supplying end-users with minerals produced responsibly and traded under good conditions.

With the enactment of the Dodd-Frank legislation the issue of conflict minerals has received global attention. End-users listed in the United States of America are faced with the obligation to enquire the origin of the TTT ores and gold used in their products, and to demonstrate due diligence in the minerals supply chain. The uncertainty about the provisions of the law and reputational risks for companies sourcing from the region has led to a de-facto embargo on minerals originating from the Great Lakes Region of Central Africa.

This is of major concern to the producer countries depending on mining revenues, and for the livelihoods of people depending on ASM and the minerals trade. Certification and due diligence of the supply chain has become obligatory in the region as well as for several downstream industries.

Efforts undertaken by governments, the private sector and civil society to enable mining activities to resume, and for sourcing from the region to be acceptable for end users, need to be accelerated. To this end, ICGLR has developed a regional certification mechanism which is now to be implemented with the assistance of BGR and other international partners.

Scaling-up and the expansion of CTC under the umbrella of the ICGLR's regional certification mechanism will provide a tool for supply chain due diligence and assure a conflict-free origin of minerals in compliance with Dodd-Frank Section 1502. Furthermore, CTC, which is now part of ICGLR's regional certification mechanism, as well as Rwandan and Congolese legislation, takes into account a wider range of social, human rights and environmental issues, and thus promotes decent conditions in the ASM sector.

In conclusion, the CTC approach lends itself to implementation across different regions. Adapted to the local context, mineral certification contributes to the promotion of responsible and sustainable ASM in developing countries.

Supply Chain Initiatives

The national implementation of CTC systems in individual ICGLR member states (such as Rwanda and DRC) is thought to contribute to the regional mineral certification protocol of ICGLR. As such, extensive consultations between ICGLR and CTC stakeholders (BGR and local partners) take place and the outcomes of CTC certification in Rwanda and DRC will be integrated into the ICGLR scheme.

Furthermore, BGR is actively engaging in discussions setting the political framework for mineral certification initiatives in the Great Lakes Region. On behalf of the German government, BGR is participating in the "Taskforce on illegal exploitation of natural resources in the Great Lakes Region". The OECD has set up a workgroup on "Due diligence guidance for responsible supply chain management of minerals from conflict-affected and high-risk areas". BGR experts are actively involved as members of the workgroup.

In Rwanda, the CTC certification system and the iTSCi mineral traceability scheme (ITRI tin supply chain initiative) complement each other in order to verify the legitimacy of original Rwandan mineral production. Similarly, CTC and iTSCi cooperate in DRC (notably at the Nyabibwe cassiterite mine, South Kivu) and jointly aim to improve supply chain due diligence.

The illustration below shows an exemplary mineral (and derivatives) supply chain from the producer in the Great Lakes Region to the end user. Existing certification and traceability initiatives targeting different levels of the supply chain are also shown. An efficient integration of these initiatives will be key to provide a conclusive link along the whole supply chain.

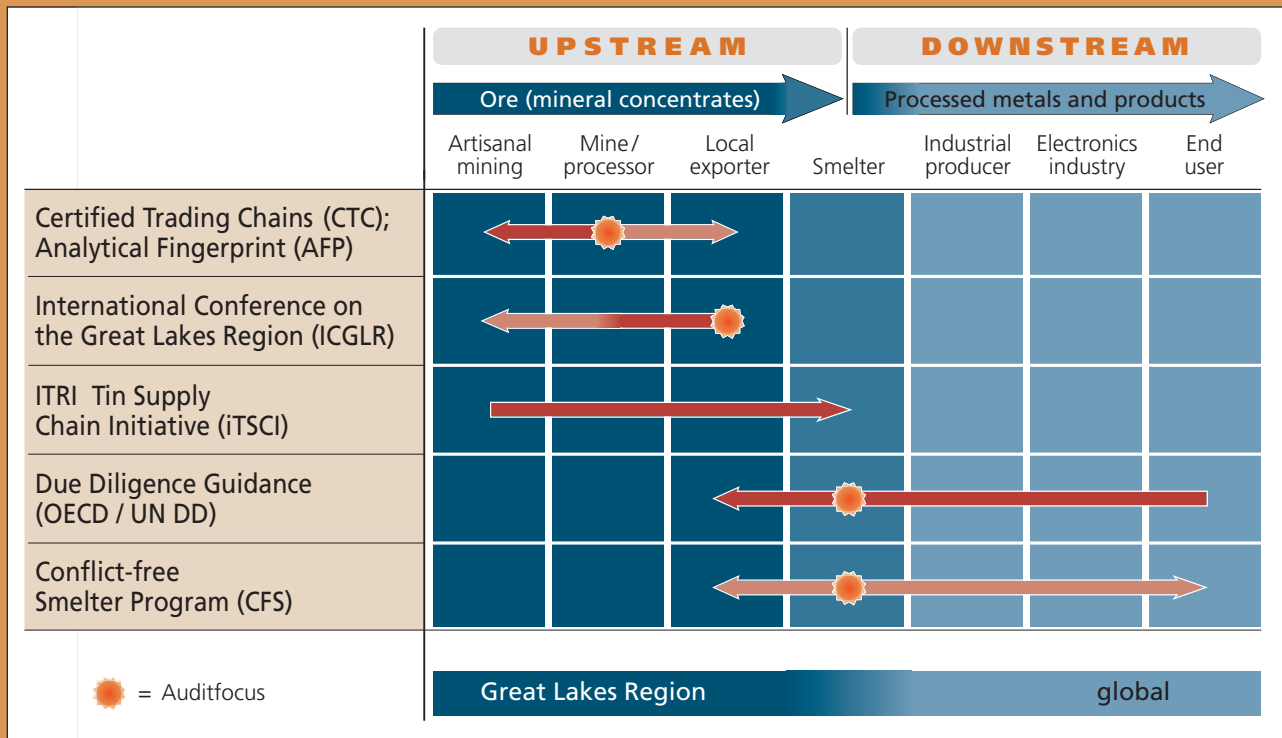


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Special thanks to: Ulrike Dorner, Gudrun Franken, Antje Hagemann, Uwe Naeher and Philip Schütte.

- Cover: Cassetterite concentrate from the Bisie Mine, North Kivu, DRC
(Photo: Luc Pongo);
Panning of wolframite pre-concentrate, Nyakabingo, Rwanda
- p. 6: Kivu provinces, DRC
- p. 9: Nemba, Rwanda
- p. 10: Nemba, Rwanda
- p. 12: Coltan mining, Gatumba, Rwanda
- p. 14: Rutongo, Rwanda | *bottom:* Phoenix Metal, Kigali, Rwanda
- p. 15: CTC Workshop (March 2010), Kigali, Rwanda
- pp. 16/17: Panning of wolframite pre-concentrate, Nyakabingo, Rwanda
- p. 18: Rutongo, Rwanda
- p. 21: Phoenix Metal, Kigali, Rwanda
- p. 22: *top:* Metal Processing Association, Gisenyi, Rwanda
middle: Conference on Mineral Certification and Supply Chain Due Diligence in Rwanda and the Great Lakes Region (March 2011), Kigali, Rwanda
bottom: On-site verification of mineral traceability during CTC audit (October 2010), Rutongo, Rwanda
- p. 23: Nyakabingo, Rwanda
- p. 24: Nyambembe, DRC
- pp. 26/27: Artisanal gold mine in Twangiza, South Kivu, DRC
- p. 28: Rutongo, Rwanda
- p. 31: ICGLR Secretariat, Bujumbura, Burundi
- p. 32: *top:* Lulingu, DR Congo
bottom: AFP training at BGR laboratory (April 2010), Hannover, Germany
- p. 36: Rutongo, Rwanda

Acknowledgements

The projects mentioned in this publication are implemented in the framework of German Development Cooperation. BGR was commissioned by the Federal Ministry for Economic Cooperation and Development (BMZ) and the Federal Ministry of Economics and Technology (BMWi).

This publication was compiled with support of the BGR Sector Project "Policy Advice Mineral and Energy Resources".

Imprint

Published by Bundesanstalt für Geowissenschaften und Rohstoffe, 2012.

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Printed by: Das Druckhaus, Bonn
Printed on FSC-certified paper

As at: February 2012

This publication is free.

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