

*A miner shows her freshly mined and washed tourmaline and Umba garnets, which were mined in Tanga Region, Tanzania. The area is well known for its pink, purple and green garnet, as well as a wide colour range of sapphire. Photo by Michael Goima/Pact.*

# THE HIDDEN JOURNEY OF WOMEN GEMSTONE MINERS OF EAST AFRICA

Cristina M. Villegas, Norbert Massay and Esther Ndeki Njunge document the challenges and triumphs of women who mine coloured gemstones in Tanzania and Kenya.

In the popular imagination of most consumers, miners are male and working on large, clean mining concessions in far-off places. Even those individuals who work in the coloured-gemstone trade are often surprised to hear that women are estimated to make up one-third of all artisanal and small-scale miners, the workforce that mines 70–80% of all coloured gemstones annually. This information is according to the World Bank, which has the best current and long-range data on the artisanal and small-scale mining (ASM) sector.

## THE ROLE OF THE WOMEN GEM MINERS

The precise populations of women gem miners per country can vary dramatically based on the social context – such as whether women are allowed to work outside of the home in rural areas – and the geological context, such as the depth of the overburden, or the layers of earth that must be removed to reach the gem-bearing

deposit. In an article by the U.S. Geological Survey on the influence of geomorphology on the role of women at ASM sites, Katherine Malpeli and Dr Peter Chirico demonstrated a correlation between women's participation in ASM and their roles on a site to the thickness of the overburden layer in ASM diamond mining. They found that when deposits required a significant degree of manual labour to access the ore due to thick overburden layers, women were typically relegated to other roles. In other words, roles for women are closed in certain environments for physical reasons. However, it is often social as well: with high-value materials in conservative rural environments, women get pushed out quickly.

*Salma M. is a Tanzanian woman, a former farmer and a member of TAWOMA whose life has been changed by gemstone mining. She now uses her knowledge to mentor other miners in the area. Photo by Michael Goima/Pact.*

## KENYA AND TANZANIA

In East Africa, women have been working in ASM for decades. This has been extensively documented by the work of Professor Doris Buss (Canada), Professor Rosemary Mwaipopo (Tanzania), Dr Jennifer Hinton (Canada) and countless others. International not-for-profit organisation Pact conducted an extensive baseline study in 2017 focussed



on Kenya's gemstone sector, studying both supply chain and gender dynamics in gemstones. This study and others estimate that in Kenya and Tanzania, women are approximately 10–20% of the mining population; that is, those who have some sort of role on a mine site.

**The Kenyan Journey.** The past two decades have been transformational for Kenyan women gem miners, according to Michelle Mwambela, CEO of the Association for Women in Energy and Extractives in Kenya (AWEIK). According to Ms Mwambela, women are finding it easy to get engaged in mining alongside the men, and even own mines, as compared to twenty years ago. Ms Mwambela points to slow changes in Kenyan cultural beliefs about women owning land. In the past, it was generally not accepted for women to own or inherit land, which made it difficult for them to obtain mineral rights. This inability to own land significantly hampered women's economic empowerment, making women dependent on male relatives for access to mining areas, according to Ms Mwambela.

Yet, some women found success in the gem-mining sector even in those early days. Miriam 'Mimo' Kamau Caplan is one of the most well-known Kenyan women gem miners due to the success of her company, Mimo Gem Traders Ltd. She began her journey as a miner working in the tunnels before being able to add staff and eventually reach the upper echelons of the trade. She has described the heat of the sun, the dust of the pits and the threat of wildlife from the neighbouring Tsavo National Park, but credits the pioneering women in mining who she watched and learned from for her success.

Building on the hard work of these women pioneers, over the past five years in particular, new opportunities and visibility have emerged for women in Kenya's gemstone communities. These include direct-sales opportunities via Moyo Gems and Virtu Gems, initiatives that are focussed on vetted ASM producers and have clear outreach priorities with women miners and sales opportunities, both locally and at national gemstone-focussed conferences organised by AWEIK. Among these efforts are Market Days,

The past two decades have been transformational for Kenyan women gem miners.

where miners are able to sell their production directly. To maintain orderly markets, each cluster of villages is assigned a specific Market Day and location to convene. Market dates are announced locally and are only open to those miners who are pre-enrolled and have passed the programme entry requirements. In Kenya, participants are required to be eighteen years or older, a registered member of a legal ASM mining cooperative and enrolled the free gemmology primer course offered to miners in the region by the Gemological Association of America (GIA) and Pact. Other organisations, such as Transparency International have brought gemstone miners to these highly successful events to show the miners what is possible if they organise

and formalise. Other local efforts have opened up trading opportunities for precision faceting for Kenyan youth who live in gemstone communities.

For women gem miners in particular, national observers give credit to the national and local governments of Kenya, but also to the proactive efforts from the not-for-profit community – specifically, AWEIK, Pact and Oxfam – and two private initiatives, GemFund and VirtuGems. These efforts so far are largely focussed in Taita Taveta County, the country's most famous gem region. Expanding to other areas will require public or private investments.

For Ms Mwambela, the increased recognition of ASM women by AWEIK, Pact and Oxfam has played a vital role in advocating for women's rights. The increased focus on skills development is equipping women miners with the knowledge and expertise needed to improve their mining operations and increase their earnings.

**The Tanzanian Journey.** Like their Kenyan counterparts, Tanzanian women gem miners have experienced fundamental shifts in their opportunities over the past twenty years. The turning point for Tanzanian women was the formation of the Tanzanian Women Miners' Association →



*Women miners will modify mining movements to accommodate their differing physical strength capabilities to men. At this site, the Tanzanian women rotate roles frequently in order to better recover from the physical act of digging. Two women will dig at one time, while two women will share a sieve. The dirt will fall through the sieve and the pebbles and gems will remain in the sieve. Once the gem material is separated from the dirt, the members of the group will gather together to sort through the small stones to determine whether any are gemstones.*

*Photo by Michael Goima/Pact.*



(TAWOMA), from which many women mining leaders have emerged. In its 2023/2024 report about ASM and gender, The World Bank noted the importance of women's mining associations and their potentially transformative power. The leadership of these organisations also matters. Collaborative partners should always be fully screened (on both sides) to ensure the group is who they say they are, that they are truly representative of miners and that donor funds actually reach mining communities.

In Tanzania, TAWOMA has been credited with securing numerous legal reforms to clarify women's rights to mine and hold mining licenses. The association demands security reforms when its members report harassment at major mine sites by calling the Minister of Mines directly. TAWOMA is also a consistent national presence at Ministry of Mines consultation events to ensure that the voices and rights of women are incorporated into short- and long-term sector planning.

Many of the TAWOMA members are gemstone miners, like Salma M., a 64-year-old woman from the Tanga Region. As with many artisanal miners across Africa, before she became a miner, Salma was a farmer. She focussed on maize, beans and coffee. When she got married, she moved to



*All Moyo Gems participants have taken part in the free-to-attend GIA educational programme for artisanal miners at some point in the eight years that it has been available in Tanzania and Kenya. The translucent trays are distributed as a part of that GIA programme, are now found throughout the region and are highly prized by gem miners because they use them to sort their gemstones. Photo by Michael Goima/Pact.*

another village with her new husband. She began mining in 2012 after seeing women who were involved in mining earn money to sustain their families. Today, Salma mines three times a week with women from her village. Her role on the site is to sieve the gem-bearing gravel and then to separate the gemstones from the remaining pile. Her group now has twenty-eight members – twenty-two women and six men – who have been mining together since 2017.

Through the pilot programme that

was first offered in her village by GIA and Pact eight years ago, Salma began learning about the value factors of rough coloured gemstones, along with how to clean and pre-sort them. Today, she knows how to identify quality gemstones from lower-grade material. She has also become a mentor for others, helping her fellow miners at the market, who often ask for her help sorting stones. This skills-building has led to improved earnings. How she uses her income is a common story among women miners. She bought five goats (which grew to twenty), has helped her husband build a house and is paying for the education of their four children – two in university and two in secondary school.

It was Pact and TAWOMA that first co-created the Moyo Gems programme in 2018 – an effort which also included international gem dealers ANZA Gems and Nineteen48 and technology company Everledger – and officially launched in Tanga Region in 2019.



*Artisanal gemstone miners from Kenya's Turkana County, who were part of a delegation organised by Transparency International's Kenya team in November 2025. Transparency International hopes to show the miners what is possible when they self-organise, formalise and form international partnerships. The miners observed the Moyo Gems market in action to understand the benefits of transparent markets. Photo by Michael Goima/Pact.*



*Moyo Gems Kenya Manager Esther Ndeki Njunge checks in pre-registered miners into Market Day, which is held in a rural village lacking electricity. In the background, pre-enrolled miners await their turn to check in and then proceed to the sales desk. Photo by Cristina Villegas/Pact.*

The goal was to focus proactively on the challenges of women miners, channel investments into their communities, promote direct trade as closely to the village level as possible and promote local economic development for women miners and their male allies, with whom they often mined. The programme was formed in response to a request from a group of women miners, who were the first participants of the GIA training. In the programme evaluation surveys, the miners asked if it would be possible to establish a direct market to help get them better prices. Pact returned shortly thereafter to respond to that request. Following codesign efforts and a successful pilot, Moyo Gems guaranteed miners that they would make 95% of the export price of their gemstones. This was a stunning achievement, as prior to the start of the programme women producers had made between 10–30%. In the past six years since the Moyo Gems initiative began, and for now, the 95% achievement still stands. The programme has become a popular, transformative to the region and a catalyst for ASM formalisation. The Regional Mining Officer for Tanga



Region routinely called the Moyo Gems programme a 'gamechanger'.

First in Tanzania and then in Kenya, Pact and its partners made the decision to include men in a women-focussed platform to promote ongoing security of the women miners, as well as community buy-in, shared economic benefits, skill sharing and market efficiency. When whole villages benefit, the villages protect the integrity of the programme. Now 50–50 women and men, with women prioritised in the line for sales, the women's mining associations now directly operate the Moyo Gems programmes locally with some light backstopping support from Pact.

### THE ROAD AHEAD

While exciting progress has occurred in ASM of coloured gemstones in important corners of Kenya and Tanzania, the obvious next step is scaling the programmes geographically. However, the expansion cannot occur in isolation. It is now easier to convince ASM gemstone miners to formalise in order to join a readily accessible, voluntary market programme. However, the market programmes – whether they are Moyo Gems, VirtuGems or another option – can only continue to operate if there is market demand. Global buyers are needed to place orders for these materials, and that is where the gap currently lies. The global jewellery industry must choose to use these materials to spur supply. In other words, these initiatives survive and expand when companies place orders.

In both Kenya and Tanzania, local financial institutions are now eagerly exploring how to turn once-risky customers into savings account and loan holders. Most miners in ASM are considered risky customers because of ASM's lack of legal status;



*Beatrice (24 years old) and Lewis (27 years old) are learning precision faceting from GemFund, a Kenyan social enterprise operated locally by two young women geologists. GemFund students acquire practical hands-on gem-evaluation skills at the Moyo Gems Kenya Markets. Their instructors purchase lower-value Moyo Gems material for the students to train on, giving these young people a competitive edge in the local job market. Photo by Cristina Villegas/Pact.*





*Davis Kambale Tayo is a local businessman from the jewellery company Taita Gems. He and his business partner requested to join the Moyo Gems Markets in Kenya as buyers. They buy direct from gem miners for use in their Kenyan-made jewellery. Photo by Cristina Villegas/Pact.*

In Tanzania, most gem miners operate illegally. Another risk is that there is little formal record-keeping in rural mining and trading environments. With the emergence of market-based platforms that service ASM directly, some of these challenges can be addressed. For example, in the Moyo Gems programme in Tanzania, a core entry requirement is proof that the miner holds or is working on a legal license with the written permission of the license holder. In Kenya, they must be a member of a registered gemstone mining cooperative. Digital sales records, kept by Pact, from their participation in these local market programmes could be used as proof of their consistent income from mining, which may then be used to qualify for bank loans.

However, it is important to prepare these miners for loans. In Tanzania, for example, most miners participating in the Moyo Gems programme have only attended some primary school and would be unprepared for formal bank loans. Pact, TAWOMA and AWEIK have been operating village-based financial literacy and

savings programmes with miners for several years to begin this process and to encourage diversification of livelihoods. This is intended to reduce miners' vulnerability to economic shocks, such as global economic downturns. Michelle Mwambela noted that these targeted interventions address the historical financial exclusion faced by rural producers and women in particular.



*Beatrice (right) is a gem miner and a student in precision faceting. She learned how to mine from her grandmother, who joined the Moyo Gems programme when it expanded to Kenya from Tanzania in 2022. Beatrice is now focussed on moving along the value chain. She is learning precision faceting at the GemFund school. Photo by Cristina Villegas/Pact.*

Finally, one of the brightest spots on the horizon in both Kenya and Tanzania are its youth, defined as ages 18–35, who represent more than 70% of the Tanzanian population. In Kenya, youth comprise 80% of the national population. By 2030, Africa as a whole is projected to account for 42% of the world's youth. That should make Africa a workforce development priority for jewellery and all forms of manufacturing and economic investments, from design to fashion.

Both countries have youth-led movements focussed on world-class gemstone faceting prior to export. In Kenya, this is centred at GemFund, which is led by two young Kenyan women geologists. Taita Taveta National Polytechnic in Tsavo is collaborating with these two women in teaching and scaling this work. Pact has provided GemFund micro-grants for equipment and opportunities for its students to receive hands-on education at the Moyo Gems Market Days purchasing events. In Tanzania, the youth activity is centred with three organisations: TAWOMA's 'TAWOMA Youth' branch, the Tanzania Women in Mining and Mineral Industry and the international not-for-profit organisation Gem Legacy. All three entities focus on creating skilled work opportunities for Tanzania's young people.

Early movers Kenya and Tanzania, led by entrepreneurial women miners, male allies and youth faceters, are waiting for the industry to act. The continent of Africa is a young, dynamic place that is ripe with opportunities, if the jewellery industry invests in it. ■

*Editor's Note: The three authors form a long-time programme team at Pact and operate its Moyo Gems initiative. Moyo Gems has received funding from the Brilliant Earth Foundation, the World Bank EGPS Fund, A Beautiful Story, The Netherlands RVO Agency and others. More information is available at [pactworld.org/mining](https://pactworld.org/mining).*