To cite this output:
Bryceson, D, MacKinnon, D, (2013) Urban Growth and Poverty in Mining Africa
ESRC End of Award Report, RES-167-25-0488. Swindon: ESRC.

ESRC End of Award Report

For awards ending on or after 1 November 2009

This End of Award Report should be completed and submitted using the **grant reference** as the email subject, to reportsofficer@esrc.ac.uk on or before the due date.

The final instalment of the grant will not be paid until an End of Award Report is completed in full and accepted by ESRC.

Grant holders whose End of Award Report is overdue or incomplete will not be eligible for further ESRC funding until the Report is accepted. We reserve the right to recover a sum of the expenditure incurred on the grant if the End of Award Report is overdue. (Please see the ESRC Research Funding Guide for details.)

Please refer to the Guidance notes when completing this End of Award Report.

Grant Reference	RES-167-25-0488		
Grant Title	Urban Growth & Poverty in Mining Africa (UPIMA)		
Grant Start Date	1 October, 2010	**Total Amount Expended:**	£559,919.13 (100%)
Grant End Date	30 June, 2013		
Grant holding Institution	University of Glasgow		
Grant Holder	Dr Deborah Fahy Bryceson		
Grant Holder's Contact Details	**Address**	**Email**	
		Telephone	

Co-Investigators (as per project application):	**Institution**
Danny MacKinnon	University of Glasgow

To cite this output:
Bryceson, D, MacKinnon, D, (2013) Urban Growth and Poverty in Mining Africa
ESRC End of Award Report, RES-167-25-0488. Swindon: ESRC.

1. Non-technical summary

Please provide below a project summary written in non-technical language. The summary may be used by us to publicise your work and should explain the aims and findings of the project. *[Max 250 words]*

Focussed on mining expansion and urbanization in Sub-Saharan Africa, our research traces the impact of large and small-scale gold and diamond mining on urban growth in Africa, drawing on case study evidence from Tanzania, Angola and Ghana to illustrate different aspects of urbanized mineral development on the continent. Ghana's longstanding position as a large-scale gold exporter contrasts with Tanzania's relatively new status as a rising major exporter. Tanzania's and Angola's large-scale diamond production has existed for decades, while artisanal diamond-mining has expanded in Tanzania in a context of peace, compared to Angola's history of civil war and 'blood diamonds', now replaced by political stability and official discouragement of artisanal diamond mining. Angolan artisanal mining settlements tend to be covertly located in remote rural areas such that Angola's mineralized urbanization is taking place in secondary towns and cities associated with large-scale diamond production. In comparison, Tanzanian and Ghanaian small town urbanization has been rapid in mineral-rich artisanal mining areas. An uneasy co-existence of large-scale and artisanal gold production exists in Ghanaian urban settlements. Tanzania's artisanal mining settlements reveal distinct stages of an urban settlement cycle aligned with the surge and gradual diminishing supply of minerals, as well as the emergence of both poor and prosperous miners. All three countries display income and housing differentiation patterns that relate to the type of mineral (diamond or gold), on-site changing mineral availability and the duration that households have been resident within the settlements.

2. Project overview

a) Objectives

Please state the aims and objectives of your project as outlined in your proposal to us. *[Max 200 words] - 196*

This study addressed the need for analytical apprehension of rapid changes in livelihood and urban settlement arising from the expansion of mining activity. After several decades of economic decline, mining's growing importance in many African economies has been welcomed by national leaders, but the rate of sectoral transformation from rural agrarian to more urbanized mining economies, has not afforded sufficient time for policymakers to fully appreciate the nature of the developmental processes underway, let alone formulate policies tailored to current realities that facilitate welfare. The increasing importance of mine-led development could exacerbate rather than alleviate poverty. Selecting two of Africa's major mineral exports, diamonds and gold, we examined the inter-relationships between

their production and urbanization in three types of sites: large-scale mining settlements, mature artisanal sites and new artisanal rush sites. The aim was to understand the population dynamics of migration and settlement in relation to the trajectory of mineral discovery and depletion. The expected boom then bust pattern of the artisanal mining population can be averted, at least in the medium term, at sites where there is adequate water and good road access, with a population willing to diversify into trade, services and fallback subsistence agriculture.

b) Project Changes

Please describe any changes made to the original aims and objectives, and confirm that these were agreed with us. Please also detail any changes to the grant holder's institutional affiliation, project staffing or funding. *[Max 200 words] - 143*

Ms. Sadia Banchirigah, who we planned to join us as the Ghana case study coordinator, as well as working part of the time in Glasgow assisting in the administration of the project did not acquire her PhD in time to start the project with us. She was not on hand to participate in Phase 1 and engage in the foundational work for the programme in Glasgow. Under the circumstances we got approval to restructure the project personnel and reconstituted the Ghana team with Prof Kate Gough of Loughborough University and Prof Paul Yankson of University of Ghana at Legon coordinating the Ghana case study while Mr Mike Shand took on administrative management, mapping, data coding and processing in Glasgow for the overall project.

There was no change to the grant holder's institutional affiliation and the total amount of funding remained as originally planned.

c) Methodology

Please describe the methodology that you employed in the project. Please also note any ethical issues that arose during the course of the work, the effects of this and any action taken. *[Max 500 words] 500*

Adopting a multi-disciplinary methodology with project researchers trained in geography, sociology, economic history, demography and geology, the project comprised:

Phase 1: An international conference was held to overview the impact of mining on urbanization and poverty patterns in the African continent's major and emergent mining economies. The paper givers were social scientists specialized in urban and/or mining presenting, with priority given to scholars who were African nationals with an up-to-date knowledge of mineral development in their countries.

Phase 2 encompassed key informant interviews, FGDs and surveys in six diamond and six gold mining settlements related to miners' migration, earnings, work and

living conditions. Our three focus countries represented: 1) a politically stable, emergent gold and diamond-producing country (Tanzania), 2) a politically stable, long-established gold-producing country (Ghana) and 3) a diamond-rich country that was embroiled in civil war until relatively recently (Angola). Three types of mining settlements were targeted: long-established small-scale mining sites, recent small-scale sites and settlements dominated by large-scale mineral production. Each country had a separate research team using a common survey questionnaire and qualitative interview guidelines. We standardized sampling for the stratified random survey, using GIS coordinates, Google imagery and map grids. Some hitches occurred. There was need for the standard questionnaire to be adjusted for specific country conditions. Several survey variables became incomparable across countries (approximately 50%). Survey coding was carried out within each country. Once coded, the data was amalgamated into a 3-country data set. At that stage it was realized that the Ghana survey had included far more households than stipulated and had used a different coding schedule. This caused considerable delay as the data had to be standardized for comparison with the other two countries. Meanwhile each country team was occupied with the analysis of their respective survey and qualitative country data, in order to gain a coherent national picture.

Phase 3 involved in-depth interviews with national and regional policymakers about their policies with respect to mining's influence on urbanization and poverty.

Phase 4 concentrated on dissemination of research findings at local, national and international levels. 'Digging Deeper' participatory programmes involving Form 4 secondary school students who were asked to express their perceptions of life in mining settlements in various art forms under the guidance of their teachers. In Tanzania and Ghana the students presented poems, songs, drawings, sculpture, plays and dances, and in Angola they did photography. Finally, with provisional findings from the surveys and qualitative data collection, we held both regional and national policy workshops in Ghana and Tanzania, and in the case of Angola, there was a stand with information about the project at the national mining fair. The discussions were lively especially at the regional mining level given the proximity of the policymakers to the mining sites, and the mix of representatives from large and small-scale mining as well as government service provisioners and business representatives. Nationally, it was more difficult to engage policymakers' interest, particularly in relation to artisanal mining, to which national governments tend to hold ambiguous attitudes.

d) Project Findings

Please summarise the findings of the project, referring where appropriate to outputs recorded on the ESRC website. Any future research plans should also be identified. *[Max 500 words]*

The existing literature on African urbanization rarely intersects with that on African mining. The urbanization literature tends to be dominated by micro studies of livelihood and cultural change while analyses of broad urban economic and occupational trends are far less prevalent. Our study addressed this gap. Defining mineralization as a rising proportion of mineral production in a country's GDP and attendant occupational, economic, social and cultural change, our data from 12 mining sites across 3 countries focused on the interaction between mining expansion and urban growth. Our conceptual perspective afforded a means of reassessing mainstream African development theory in the context of the continent's mining boom. Specific findings are:

Nature of urban growth

• All 3 countries evidenced *direct urban growth* in relation to gold & diamond discoveries. In Tanzania, significant small town growth related to artisanal sites and secondary city growth at the large-scale gold sites. In Angola, artisanal diamond mining had been an important source of finance for rebels during the country's long civil war, which, after cessation of the war, was being discouraged by the government, and only operating in various covert rural areas, whereas most up-country urban development in the Lundas mining region is associated with large-scale mining and attendant secondary city growth. Ghana's far older mining settlements tend not to be easily categorized as large-scale or artisanal mine settlements, and all sites exist as complex mixtures of the two.

• *Indirect urbanization* was observed in Tanzania, whereby economically successful artisanal miners had a tendency to invest their surplus earnings in housing in the nearby regional capital cities rather than building in the mining site, their home areas or the country's primate city.

Settlement pattern and instability

• It is generally assumed that mining sites can be residentially unstable contingent on the mineral availability and global market demand. Our research provides evidence of a 'settlement mining cycle' especially pronounced in relation to artisanal mining. This was confirmed in terms of artisanal rush sites in Tanzania, however the mature artisanal sites had achieved residentially longevity on the basis of economic diversification, retaining vestige mine activity and sometimes new mining work in nearby areas, augmented by service sector development and fallback subsistence agriculture. Similarly the older mixed sites in Ghana afforded some residential stability. The survival of these settlements was generally contingent on reliable year-round access to water and good road connections.

Poverty & Wealth Dynamics

• The large-scale mining settlements were testimony to high mineral prices in the global market, attracting a skilled and educated labour force that was restricted in size. Artisanal miners in Tanzania and Ghana amassed on the perimeter of such sites to work old tailings

in the surrounding area or to seek illegal entry into the large-scale mines. The residential security and welfare of the artisanal miners was inferior to the formally employed labour force.

• Artisanal miners tend to display a great deal of inter-site mobility. Often they leave women with children behind whose welfare status may become precarious in the absence of their economic support.

e) Contributions to wider ESRC initiatives (eg Research Programmes or Networks)

If your project was part of a wider ESRC initiative, please describe your contributions to the initiative's objectives and activities and note any effect on your project resulting from participation. *[Max. 200 words]*

Our project was discrete and did not form a component of a wider project.

3. Early and anticipated impacts

a) Summary of Impacts to date

Please summarise any impacts of the project to date, referring where appropriate to associated outputs recorded on the Research Outcomes System (ROS). This should include both scientific impacts (relevant to the academic community) and economic and societal impacts (relevant to broader society). The impact can be relevant to any organisation, community or individual. *[Max. 400 words]*

• We have already succeeded in publishing one journal special issue and one edited book to disseminate our research findings. In addition we have published 3 journal articles and presented 15 seminars in UK, Europe and Africa (see attached listing).

• Our regional policymakers forums evoked animated discussion and facilitated networking between mining and urban management circles. In Tanzania a day-long workshop brought together artisanal miners, large-scale mining officials, policymakers including municipal officials, government mining officers, and local leaders, where their competing interests as well as mutual concerns were clarified. In Ghana, discussion took place with key stakeholders in Accra and the mining settlements including members of Parliament, members of Municipal and District Assemblies and top officials in the National Development Planning committee and all the relevant ministries. In Angola an UPIMA exhibition stand and presentation were made at the annual International Mining Fair of Luanda, where the need for such social science information about urbanization and the mining sector was generally affirmed. Overall, the dissemination of our UPIMA research findings in the

case study countries. Further publication of the case studies and their implication for broader continental trends is helping to fill an informational vacuum and facilitating the possibility of more sensitive policymaking. In doing so, there is a foundation for formulating policies to alleviate political resentment and social upheaval related to the contentious arena of access to urban infrastructure and amenities, mining rights and income uncertainty.

• The 'Digging Deeper' programme held with youth at state schools in the 12 different research sites over 3 countries resulted in disarmingly frank accounts of the influence mining has on urban youth (see http://web2.ges.gla.ac.uk/upima/). The students (approximately 16-22 years of age) were very conscious of their involvement in cultural and social identity transformation compared with youth in the surrounding rural countryside. The teachers, who supervised the students while preparing their artwork, felt that the event was a positive formative experience for the students. The continuing course of mineralization in Africa will above all impact on youths' future. Many expressed being torn between pursuing their education as opposed to earning money as miners, but almost all desired a future that would afford them high earnings that did not entail the hard manual labour and uncertainty of mining. The Digging Deeper event gave vent to contradictory feelings and hopes as the youths live through a period of unparalleled opportunities and uncertainties associated with the mining boom.

b) Anticipated/Potential Future Impacts

Please outline any anticipated or potential impacts (scientific or economic and societal) that you believe your project might have in future. *[Max. 200 words] - 179*

• The UPIMA research activities and publications will encourage a broader awareness of the amalgam of economic, economic, demographic, social and cultural change that is occurring in mineralizing African countries. The findings confirm the potential for achieving economies of scale in mine-led urban areas, while pointing to the constraints and downward welfare trajectories that can coalesce in the absence of policies to avert them.

• We are endeavouring to edit an additional edited book collection entitled: *Urban Mining Settlements in Africa: Patterns, Pressures and Prospects*

• One of our team members, Jesper Bosse Jønsson, is now working in Tanzania on mineral extraction policies as head of development planning in COWI Tanzania. Advising extractive industry companies, donors, and Tanzanian government on social performance, resettlement, local enterprise development, artisanal mining, community engagement and land-use planning, he is in an ideal position to communicate UPIMA findings and influence policymaking accordingly.

• The Digging Deeper events with secondary school students will hopefully be replicated elsewhere to provide a continuing forum for youth to express views and concerns about their urban future under continuing mineralization of the continent.

You will be asked to complete an ESRC Impact Report 12 months after the end date of your award. The Impact Report will ask for details of any impacts that have arisen since the completion of the End of Award Report.

4. Declarations

Please ensure that sections A, B and C below are completed and signed by the appropriate individuals. The End of Award Report will not be accepted unless all sections are signed. Please note hard copies are **not** required; electronic signatures are accepted and should be used.

A: To be completed by Grant Holder

Please read the following statements. Tick **one** statement under ii) and iii), then sign with an electronic signature at the end of the section (this should be an image of your actual signature).

i) The Project

This Report is an accurate overview of the project, its findings and impacts. All co-investigators named in the proposal to ESRC or appointed subsequently have seen and approved the Report.	X

ii) Submissions to the Research Outcomes System (ROS)

Output and impact information has been submitted to the Research Outcomes System. Details of any future outputs and impacts will be submitted as soon as they become available.	**X**
or	
This grant has not yet produced any outputs or impacts. Details of any future outputs and impacts will be submitted to the Research Outcomes System as soon as they become available.	☐

iii) Submission of Data

Data arising from this grant have been offered for deposit with the UK Data Service.	**X**
or	
Data that were anticipated in the grant proposal have not been produced and the UK Data Service has been notified.	☐
or	
No datasets were proposed or produced from this grant.	☐