

Institution: The University of Edinburgh
Unit of Assessment: Anthropology & Development Studies
Title of case study: 2: Mining and Resource Governance: Informing International Development Agendas and Government Policies in Africa and Asia
<p>1. Summary of the impact</p> <p>Research on the relationship between the livelihood strategies of artisanal miners and the regulation of resource extraction has had impact in three main areas:</p> <ul style="list-style-type: none"> • Informing international negotiations for the 2013 Minamata Convention on Mercury, and in particular increasing the attention paid to artisanal miners. • Assisting makers of national policy in implementing workable resource regulations strategies in Africa and Asia, which take into account the livelihood needs of artisanal miners, as part of attempts to implement the Minamata Convention. • Assisting local organisations in Zimbabwe, in increasing their capacity to campaign for forms of national regulation that take the livelihood needs of artisanal miners into account.
<p>2. Underpinning research</p> <p>While the majority of mining sector policy research has focused on large multinationals, there has been less attention to mining that takes place at a much smaller scale. The artisanal and small-scale mining sector generally involves rudimentary methods of resource extraction. Through multi-sited fieldwork that builds upon development studies, ecological economics and political ecology, research carried out by Spiegel has improved understandings of the relation between local livelihood concerns in artisanal mining areas and evolving global mining policy paradigms. Whilst working as a Lecturer in Edinburgh (since August 2011), Spiegel's research has been supported by grants from the United Nations Environment Programme (UNEP) (<i>Analysis for Stakeholders on Formalization in the Artisanal and Small-Scale Gold Mining Sector: Tanzania Case Study, 2011-12</i>) and the Centre for International Forestry Research (CIFOR), (<i>Formalization of Informal Land and Resource Tenure: Reconceptualizing Governance Priorities and Geographies of Inequality in Africa and Asia, 2011-213</i>). Further field research was conducted in Zimbabwe with funds from the School of Social and Political Science Strategic Research Support Fund in December 2012 and February 2013.</p> <p>Spiegel's research is practice-based and was carried out in participation with rural stakeholders in artisanal gold mining areas, as well as resource-extraction regulators, producing insights into the relationship between the livelihood strategies of small scale and artisanal mines, and attempts at environmental regulation (Spiegel 2012a, 2012b, 2012c, 2013). The research analysed the extent to which government-led environmental initiatives and donor-funded interventions take into account socioeconomic challenges at the grassroots level. The research was carried out against the background of debates about regulating artisanal mining and decentralising environmental decision-making. Research investigated different policy frameworks, governance dilemmas, and livelihood dynamics in unlicensed mining contexts in Zimbabwe, Tanzania, Mozambique, Brazil, Indonesia and Cambodia. Drawing on interviews with mining communities, lending institutions and policy-makers, the research has analysed the structures and processes that are used to govern and support small-scale artisanal mining.</p> <p>One of the principal findings of the research has been that addressing livelihood insecurity in the small-scale mining sector should be prioritized in resource policy reform initiatives, particularly given rising global trends towards rural economic dependence on rudimentary resource extraction (Spiegel 2012a, 2012b, 2012c, 2013). The comparative analysis shows that most mineral policy frameworks have significant weaknesses due to the lack of formal legal recognition given to marginalized miners. Furthermore, tightening environmental regulations, without addressing the needs of artisanal and small scale mining groups, will criminalizw activities and processes that impoverished communities need for their subsistence. The research therefore proposes</p>

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alternative global and regional environmental regulation strategies that aim to encourage institutional adaptation to contextual nuances, and in particular, engagement with excluded groups (Spiegel 2012a, 2012b, 2012c, 2013).

3. References to the research

- Spiegel S.J., 2012a. Formalisation policies, informal resource sectors and the de-/re-centralisation of power: Geographies of inequality in Africa and Asia. Report for Centre for International Forestry Research (CIFOR), Bogor, Indonesia. Available at:
<http://www.cifor.org/fileadmin/subsites/proformal/PDF/RSpiegel1212.pdf>
- Spiegel S.J., 2012b. 'Analysis of Formalization Approaches in the Artisanal and Small-Scale Gold Mining Sector: Tanzania Case Study', Report for United Nations Environment Programme. Available at
http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/ASGM/Formalization_ARM/Case_Study_Tanzania_June_2012.pdf
- Spiegel S.J., Ribeiro C.A.A.S., De Sousa R.N., Veiga M.M. 2012c. 'Mapping Spaces of Environmental Dispute: GIS, Mining and Surveillance in the Amazon', *Annals of the Association of American Geographers* 102(2): 320-349, DOI:
[10.1080/00045608.2011.641861](https://doi.org/10.1080/00045608.2011.641861).
- Spiegel S.J. 2013. Managing Small-Scale Gold Mining and Diverse Rural Development Dynamics: Insights from Cambodia. Edinburgh Working Papers in Sociology No. 40,
http://www.sociology.ed.ac.uk/working_papers/show_paper?result_page=40

4. Details of the impact

Artisanal and small-scale mining provides livelihoods to an estimated 80-100 million people worldwide. The governance of such mining is a major international issue due to growing concerns about transboundary pollution and health inequality in mining areas, as well as the political consequences of illegal extraction and livelihood constraints in poorer countries. As attempts are made to produce environmentally and economically sustainable forms of resource extraction in the global south, it is of crucial importance that the livelihood concerns of small scale and artisanal miners are not forgotten, not least to ensure the effectiveness of any form of regulation. Spiegel's research has had an impact in increasing the emphasis on artisanal mining in international and national policy, as well as informing the content of that policy and the design of effective implementation measures. Research has also had impact in developing the capacity of grass roots organization to represent the interests of artisanal miners. The relationship between research and impact has been iterative and continuous, with practical engagement feeding into research insights, and vice versa. Research has therefore had an impact in *improved management or conservation of natural resources and environmental risk, the improved implementation of environmental policy and regulation* and stimulating policy debate.

International treaty negotiations. Spiegel's research has fed directly into international negotiations over the regulation of mercury use. For example, his research was included in a UNEP report that was distributed to governments in Africa, Asia and South America during multilateral talks for an international treaty to curtail mercury pollution (for corroboration see 5.1). This case study on artisanal mining and rural inequality was one of the five studies used during the negotiation for the Minamata Convention on Mercury. The Convention was adopted by over 140 countries in January 2013. Spiegel's research based case study showed policymakers how a total ban on mercury could negatively impact marginal livelihoods and could also be counterproductive by increasing clandestine mercury use. Spiegel's case study was therefore a crucial part of debates that led to the inclusion of a provision in the convention that allows for the limited use of mercury in the artisanal gold mining sector (Article 9 of the convention), as well as an international funding mechanism to support capacity-building and technology enhancement in developing countries (Article 15) (5.2, 5.4). It is widely acknowledged by the United Nations that the treaty measures adopted will reduce health threats for millions of people worldwide (5.2).

Regional policy strategies. Spiegel's research is also being used by national governments to

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help implement the Minamata Convention, and to inform governments about what needs to be included in national strategic planning as part of Convention obligations (5.3, 5.4, 5.5). Building on his longstanding relationships advising UNDP (United Nations Development Programme) and UNEP (United Nations Environment Programme), between 2011 and 2013 he has provided expert advice to the UNEP Global Mercury Partnerships Advisory Committee which aims to protect human health and the global environment from mercury. Most recently he discussed findings from his research at a UNEP Mercury Policy Forum held in July 2013 in Edinburgh. As part of this he advised governmental and international policymakers, as well as NGOs from Africa, Asia and South America on community-based approaches for implementing the requirements of the global treaty. According to the Co-lead of the Artisanal and Small Scale Mining Area of the UNEP Global Mercury Partnership 'Spiegel's research has influenced the thinking of governments and donors... providing compelling arguments for devising new approaches that emphasize capacity-building and empowerment for mining communities rather than punitive approaches' (5.4).

International policy. Away from mining, Spiegel's research has also fed into discussions about the international trade in timber, where lessons are being learned from the experience of mining regulation. The EU is currently developing initiatives to prevent the import of illegally harvested timber. The EU launched the Forest Law Enforcement, Governance and Trade Action Plan in 2008 and contracted the Centre for International Forestry Research to provide studies on the 'formalization' of informal resource sectors. In June 2012, Spiegel presented his research to European Union policymakers in Brussels, drawing on his empirical fieldwork in Indonesia and Zimbabwe, highlighting the importance of empowering local institutions and marginalized rural groups during negotiations over resource rights (5.7). The report is being used by the EU to inform negotiations between the EU and other countries in an ongoing policy process involving potential changes to the resource rights of millions of forest-dependent people in (mostly tropical) countries that provide natural resources to Europe (5.7).

National policy implementation. Spiegel's work has had impact on policy and organizational capacity in Southern Africa. Zimbabwe is currently recovering from a protracted economic crisis, with tens of thousands of artisanal miners having been arrested during police crackdowns between 2006 and 2009, affecting women, men and children in artisanal mining communities. Spiegel's research helped to inform processes of policy reform and recovery, giving direct advice to the Ministry of Women Affairs, Gender and Community Development. According to the Zimbabwean Secretary of Woman's Affairs, Gender and Development, Spiegel's work has 'help(ed) our ministry to implement the international mercury treaty' (5.6). More specifically, Spiegel's work in this area helped to shape the government's approach to the development of community outreach services in rural artisanal gold mining areas, particularly to support women, who are disproportionately affected by mercury exposure (5.6).

Local organisation capacity. Spiegel's research has also helped regional artisanal miners associations in Zimbabwe. With 1.5 million people dependent on artisanal mining in Zimbabwe, improving equity in gold mining is a major food security and environmental issue. The Zimbabwe Artisanal and Small-Scale for Sustainable Mining Council (ZASMC) is the first national association of its kind in Zimbabwe (officially launched in 2013) and Spiegel's advice helped to build ZASMC strategies for representing marginalized constituents in the sector (5.8, 5.9). For example, ZASMC invited Spiegel to speak at a national multi-stakeholder forum on mining policy in Harare on February 14, 2013 (5.8). He presented research findings in gold mining communities in the Insiza and Kadoma-Chakari areas to senior government policy-makers, banks, artisanal miners, multinational companies and NGOs, focusing on regional strategies for improving environmental management and supporting livelihoods. His research was also used by ZASMC in creating outreach strategies with artisanal miners. Spiegel travelled with members of different regional small-scale miners associations in the Insiza, Umzingwani, Kadoma and Shamva regions to exchange knowledge on how grassroots organizational strategies can be strengthened and to share experiences with national and district government officers. The President of ZASMC has written that Spiegel has 'contributed quite immensely on the revival of small scale miners in Zimbabwe' (5.9). As a result of ZASMC campaigns, the Government of Zimbabwe announced plans in 2013 to decriminalize certain forms of artisanal mining that were previously criminalized,

high licensing fees that created a formalisation barrier in marginalized mining communities were lowered in 2013, and safer technologies were promoted (5.10).

5. Sources to corroborate the impact

PDFs of all weblinks are available at www.wiki.ed.ac.uk/display/REF2014REF3B/UoA+24

5.1 United Nations Environmental Programme. 2013. Analysis for Stakeholders on Formalization in the Artisanal and Small-Scale Gold Mining Sector: Tanzania Case Study. Corroborating evidence of the use of Spiegel's case study in Minamata Convention negotiations.

http://www.unep.org/hazardoussubstances/Portals/9/Mercury/Documents/ASGM/Formalization_ARM/Case%20Study%20Tanzania%20June%202012.pdf

5.2 United Nations Environment Programme Press Release. 2013. 'Minamata Convention Agreed by Nations Global Mercury Agreement to Lift Health Threats from Lives of Millions World-Wide.' Corroborating impact of Minamata Convention.

<http://www.unep.org/hazardoussubstances/Mercury/Negotiations/INC5/INC5PressReleases/tabid/106835/Default.aspx>

5.3 Schmidt, C. 2012, 'Quicksilver and Gold: Mercury Pollution from Artisanal and Small-Scale Gold Mining', *Environmental Health Perspectives*, November 2013. Corroborating Spiegel's influence in UNEP policy making, <http://ehp.niehs.nih.gov/120-a424/>

5.4 Letter from Co-lead, Artisanal and Small Scale Mining Area of the UNEP Global Mercury Partnership, corroborating the use of Spiegel's case study in convention negotiations. The provider is a reporter on the impact process.

5.5 Titthara, May. 2013. 'Goldrush in Prey Lang Forest', *Phnom Penh Post* 13 February 2013. Corroborating role of Spiegel's United Nations Development Programme (UNDP) report on Cambodia (commissioned by UNDP on request of the Royal Government of Cambodia) in policy debates in Cambodia, <http://www.phnompenhpost.com/national/gold-rush-prey-lang-forest>

5.6 Letter from the Ministry of Women Affairs, Gender and Community Development, in Zimbabwe corroborating the role of Spiegel's research in informing the government's approach for implementing Minamata Convention. The provider is a reporter on the process.

5.7 Letter from Senior Scientist at the Centre for International Forestry Research. Corroborating Spiegel's role in EU timber trade negotiations. Provider is a reporter in the process of impact.

5.8 Madizha. T. 2013. 'Mercury Ban Will Undermine Small Scale Mining', *Newsday*, 26 February 2013. Corroborating Spiegel's involvement with the Zimbabwe Artisanal and Small-Scale for Sustainable Council, <https://www.newsday.co.zw/2013/02/26/mercury-ban-will-undermine-small-scale-mining/>

5.9 Letter from ZASMC corroborating the impact of Spiegel's research on ZASM. Provider is a reporter on the impact process.

5.10 Southern Eye, July 8, 2013, 'ZASMC to Register 1.5 Million Miners'. News story corroborating impact of ZASMC grassroots mobilisation activities:

<http://www.southerneye.co.zw/2013/07/08/zasmc-to-register-15-million-miners/>