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Analysis

Southern Responses to Fair Trade Gold: Cooperation, Complaint, Competition, Supplementation

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ABSTRACT

Social and environmental harm continues to emanate from global commodity production despite the array of governance programs trying to mitigate it. This paper examines the evolution of transnational certification standards in an understudied sector: artisanal and small-scale gold mining (ASGM). ASGM is a subsistence livelihood for millions of people in the Global South, yet is also a leading cause of global mercury pollution and associated with poverty, deforestation, and civil conflict. Since program effects are shaped by normative and material contexts, this paper asks: What roles did ideas, interests, and capacities play in shaping Southern responses to ASGM certification programs? New data from Northern-based Fairtrade International and Southern-based Alliance for Responsible Mining reveal that normative and material misalignments between program designers and targets drove three key outcomes. First, the Southern NGO initially cooperated but then competed with Fairtrade when ideas about how to address sector problems diverged and capacities became redundant. Second, very few Southern producers participate in the competing programs, which only moderately mitigate sector problems (e.g. programs largely fail to resolve poverty and allow mercury use to continue). Third, the Southern NGO created the new CRAFT Code, a much weaker self-reporting program well-positioned to enjoy higher uptake because it better aligns and respects actors' interests and capacities. Empirical findings from this unique and important case contribute to theoretical debates on the utility of institutional diffusion across diverse sectors and problems, and suggest that certification programs – whether Northern- or Southern-designed – may not be the best institutional 'fit' with ASGM.

Global trade continues to harm humans and the environment despite the array of actors working to govern it. Even when actors work collectively to solve shared problems (i.e. form regimes), a range of factors shape regime effectiveness. One factor is regime composition, i.e. the number and types of actors populating regimes (Biermann et al., 2009; Young, 2011). In the realm of global trade, a rising number of transnational businesses and non-profit organizations are joining regimes, often using voluntary sustainability standards (VSS) to encourage better behavior among global value chain actors (Auld et al., 2018). Of these, third-party product certification and labeling programs strive to be the most objective and therefore effective programs by having non-profits write the standards and independent auditors verify value chain compliance. Yet the actual impacts of certification programs on the problems they were created to solve is unclear.

Part of this ambiguity stems from the way the certification literature developed: early research often focused on programs emanating from the higher-income countries of the Global North and on a small sample of product sectors. This research helpfully explains why and how Northern programs try to contribute to regimes, and suggests limited positive impacts in the Global South (Auld, 2014; Dietz et al., 2019; Gulbrandsen, 2010; van der Ven and Cashore, 2018; van der Ven et al., 2018). Moving forward, more research should analyze Southern responses to Northern programs because Southern actors are often program targets and increasingly program competitors (Schouten and Bitzer, 2015). Additionally, research should probe the generalizability of findings from the well-studied coffee, timber, and fisheries sectors. Products like aquarium fish, wine, and cannabis are different from those traditionally studied in important ways, and their analysis helps refine private governance theories and highlights the potential and limitations of certification as a problem solving approach (Bennett, 2017; Bloomfield and Schleifer, 2017; Delmas and Lessem, 2017).

This paper helps move the literature forward by providing analysis of Southern responses to Northern-led certification programs in a particularly important and non-traditional sector: gold jewelry sourced from artisanal and small-scale gold mining (ASGM). Gold is often found in contexts with plentiful natural resources but weak or unhelpful institutions. Accordingly, many of the 15–30 million miners in the sector live in poverty, choosing ASGM as an informal livelihood of last resort and using whatever mining techniques are available to them (Heemskerk, 2002; Hilson and Pardie, 2006; Hilson and McQuilken, 2014; Marshall and Veiga, 2017). Unfortunately, and unlike large-scale mining, those techniques often rely on mercury, an affordable but toxic heavy metal that the international community is actively working to mitigate (Spiegel, 2009; Sippl and Selin, 2012; Selin, 2014; Saldarriaga-Isaza et al., 2015; Spiegel et al., 2018; UN Environment Program UNEP, 2018). These techniques make ASGM a leading source of global mercury pollution—in addition to poisoning mining communities in the South, mercury travels through the atmosphere and bio-accumulates in

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aquatic food chains to poison people globally. At the same time, the sector also has the potential to foster social and economic development, which are important goals for miners and their communities (Hilson et al., 2018).

Accordingly, several transnational actors are joining regimes with the goal of maximizing ASGM's potential while minimizing its harm (Auld et al., 2018; Sippl, 2015). Because more than half of the world's gold supply serves the jewelry industry (UN Environment Program (UNEP), 2018), in 2011, Northern-based Fairtrade International launched a certification program to mitigate the full spectrum of social and environmental issues emanating from ASGM (e.g. poverty, mercury, deforestation, child labor, armed conflict). The certification literature now includes analyses of this initial program and theoretical reflections on the wisdom of 'fair trade' gold generally (Childs, 2008, 2010, 2014; McQuilken, 2016; Hilson et al., 2016; Hilson et al., 2018; Sippl, 2015; Fisher, 2018). Yet because this initial program is now defunct, analysis of its replacements is urgently needed. The regime literature suggests that ideas, interests, and power shape both the decision of actors to join regimes and the magnitude of effects they generate as members (Hasenclever et al., 2000; O'Neill et al., 2004; Young, 2011). This paper therefore asks: What are the main Southern responses to ASGM certification programs, and what roles did ideas, interests, and power play in shaping them?

After reviewing these drivers of regime composition and the literature on ASGM certification, the paper discusses its original data and presents its results. The findings are presented via three sets of Southern responses to Fairtrade's initial ASGM certification program: cooperation and complaint, competition and tepid uptake, and supplementation via a weaker program. Process tracing of the roles played by ideas, interests, and power suggest support for a basic intuition about the drivers of Southern responses to Northern-led certification programs: high levels of ideational affinity, interest alignment and power among programs and participants supports Northern program success; low levels support Northern program failure; and medium levels may foster competition from Southern programs and widespread uptake of relatively weak sustainability standards.

The ASGM case is emblematic of this latter situation, and the paper's analysis makes several contributions to the global governance literature. First, the paper presents ASGM certification uptake patterns, which are of interest to both scholars and practitioners. Second, the paper's findings on the drivers of Southern responses generates data scholars can use to test governance hypotheses. Third, this analysis of Southern programs targeting Southern value chain actors contributes to the growing literature on South-South cooperation (Quadir, 2013; Schleifer and Sun, 2018). Fourth, it provides one of the first academic analyses of the Alliance for Responsible Mining's CRAFT Code, launched in August 2018 to address ASGM's struggles with conflict and legality. Overall, the paper fosters deeper understanding of why Southern actors join or reject commodity regimes and the effects they have as members. Understanding these dynamics in the ASGM case is critical to the goal of supporting development while protecting humans and the environment.

1. The drivers of transnational actor behavior and regime composition

Tensions between the context in which global governance programs are designed and the context in which they are implemented shape the details of the programs that emerge and the responses of targeted actors to them (Childs, 2008, 2010; Hilson and Pardie, 2006; Hilson and McQuilken, 2016; Manning et al., 2012; Schouten and Bitzer, 2015; Spiegel et al., 2018). When producers, retailers, and activists decide to cooperate, compete with, or condemn programs, they are de facto joining or rejecting regimes, which determines the levels of transnationalism and fragmentation within them. The regime literature typically analyzes such decisions by tracing the process by which ideas, interests and power shaped them.

While once controversial, it is now widely accepted that ideas shape regime composition and effectiveness (O'Neill et al., 2004). When the creators and targets of governance programs agree about facts and subscribe to the same norms, program support becomes easier because actors are intrinsically motivated to change (Gneezy and Rustichini, 2000). Yet these conditions can be scarce when programs emanate from the Global North and target the Global South (or vice versa). Different levels of education cause different ways of reasoning about causes and consequences of problems, negative past experiences with interventions can erode trust in new ones, and there is not unanimous enthusiasm for the compromises inherent in sustainable development (Childs, 2014, Fisher, 2018; Goldstein, 2019). Commodity production sites, for example, are often communities with low levels of formal education but very strong norms, so programs emanating from outside of these communities do not always resonate and are sometimes incompatible and rejected (Goldstein, 2019). Therefore, in line with constructivist theories of international relations, any analysis of Southern responses to certification programs should explore how ideas shaped them.

Ideas, in turn, shape interests, which seldom align perfectly between Northern and Southern actors (Cashore and Bernstein, 2018). As the editors of this Special Issue note, many environmental problems lack pareto-improving solutions—programs often make actors strictly worse or better off. In the case of certification, the more that the interests of programs and targets diverge, the more consumers will have to pay to incentivize change. Research shows that consumers are willing to pay more for certified coffee (Hainmueller et al., 2015), but it is not clear how *much* more they are willing to pay, which may cause programs to fail in sectors where interest divergence is large. In such contexts, Southern responses to programs may be competition via new programs that better align interests, or rejection of the certification approach altogether.

While such analysis of interests is central to neoliberal international relations theory, realist scholars add that actors may be willing but unable to pursue their interests due to varying levels of power, defined here as capacity to act. Southern agency may be constricted, for example, by low levels of financial resources, health, education, or freedom (Sen, 1999). In line with Hasenclever et al. (2000), this paper posits that rather than one of these forces explaining all Southern responses to certification programs, ideas, interests, and power likely interact to shape Southern responses.

2. Certification of gold jewelry sourced from ASGM

Commodity regimes targeting minerals include an array or transnational initiatives that vary on several dimensions: the mineral governed (e.g. gold, diamonds, tantalum, tin, tungsten), the problem or issue (e.g. conflict, poverty, environment, formalization), the geographic scope (e.g. global versus regional), the scale of production targeted (e.g. large versus small), the program type (e.g. third-party certification, second-party labeling, or capacity building projects), and the program duration (e.g. one-off grant-funded pilot projects versus ongoing, self-sustaining initiatives) (Auld et al., 2018, Hilson and McQuilken, 2014; Hilson and Maconachie, 2017, Sippl, 2015, Van Bockstael, 2018). Examples of prominent and diverse members of the gold regime include the No Dirty Gold campaign run by Earthworks, the Artisanal Gold Council, Solidaridad, and various multinational mining corporations (Auld et al., 2018, Bloomfield, 2015, IGF, 2017; Sippl, 2015). This paper focuses on Southern responses to a specific type of regime member: third-party certification programs aiming to resolve the full array of economic, social, and environmental issues in the artisanal and small-scale gold mining (ASGM) sector both globally and over the long-term.

The literature on ASGM certification is growing. Early analyses were speculative and general, focusing on the now-defunct joint-program between Fairtrade International (FLO) and the Alliance for Responsible

Mining (ARM). Hilson et al. (2016) worried that the joint-program would not reach the miners most in need of help. Childs (2014) worried that even if those in poverty *were* reached, miners might reject certification due to their negative experiences with past development interventions and reliance on informal networks for services. Fisher (2018) worried that even if miners *did* want to certify, the numerous obstacles they face on the path to certification might prevent them from doing so. Sippl (2015) and Hilson et al. (2016) worry about permit acquisition, warning that governments might prefer to give permits to larger, more lucrative mining operations. Still other papers throw doubt on the entire premise of global standards connecting Southern producers to global jewelry markets. Hilson (2008) notes that in many regions the final buyer is governments, not jewelry consumers. And Hilson and McQuilken (2016) emphasize that the socioeconomic and political contexts in which ASGM occurs vary so much regionally that globally-oriented, one-size-fits-all programs are not likely to succeed.

A second wave of research focuses on the joint-program's demise and its replacement with competing programs (Hilson and McQuilken, 2016; Hilson et al., 2018; Sippl, 2015). Sippl (2015) provides high-level description of the split and resulting programs, while Hilson et al. (2018) cover similar ground adding the vantage point of Northern ethical jewelers who are frustrated with program offerings and certification program representatives who are resigned to on-going problems in the sector. While providing an empirically helpful starting point, this literature needs causal analysis of the factors driving these outcomes in order to build private governance theory. This paper provides this analysis by explaining the drivers of Southern actors' behavior (i.e. why Southern mining organizations, jewelers, governments, and activists are cooperating with, competing with, or condemning programs).

3. Methodology and data

Empirical research on minerals is a helpful complement to research on agriculture and fisheries because of the similarities and differences across sectors. Gold mining is comparable in its employment of a large number of Southern subsistence producers who compete with large-scale capital-intensive producers for sales in Northern markets (van der Ven and Cashore, 2018; Gulbrandsen, 2010). Production sites are geographically constrained (i.e. certain crops, species of fish, and gold are found only in specific regions). And low wages, child labor, deforestation, toxic chemical use and links to sub-state violence are all frequently issues in mining and agriculture (Auld et al., 2018; Bloomfield, 2015). Yet minerals differ from agriculture and fisheries because they are non-renewable resources, require ongoing acquisition of new land, and in the case of precious minerals have high price-to-volume ratios. These similarities and differences maximize ASGM's value as a sector-case—its similarities make it part of the larger population of Southern subsistence livelihoods, and its differences help place parameters on the range of sectors for which previous certification findings are generalizable.

Selection of certification program cases was straightforward. As stated previously, this paper focuses specifically on long-term programs in which non-profits write the standards, businesses comply with or source products using the standard, and third-party auditors verify compliance with the standard. Prominent examples of such programs include the Forest Stewardship Council, Fairtrade International, and the Rainforest Alliance, and there is a thriving literature exploring their origins, evolution, and interplay (Cashore et al., 2004; Gulbrandsen, 2010; Auld, 2014; Bartley, 2018). As of mid-2019, only two programs fit this definition and target ASGM: those run by Fairtrade International (FLO) and the Alliance for Responsible Mining (ARM) (Auld et al., 2018; IGF, 2017; ITC Standards Map, 2019). While other programs use market-based mechanisms and labels to address the sector (e.g. 'Just Gold,' 'Better Gold Initiative,' 'No Dirty Gold,' and Solidaridad's programs) these are either not third-party programs or rely on ARM's or FLO's standards in their work.

Since FLO was the first-mover in the sector and is a Northern organization (it is headquartered in Germany and emerged in the 1980s to unite the disparate fair trade organizations scattered around Europe at that time FLOCERT, 2019), the responses of Southern stakeholders to FLO's programs are the main focus of this paper. The responses of these actors are coupled temporally, i.e. the responses of Southern activists-turned-program-creators are paired with the responses of Southern program targets (producers and retailers) for three critical junctures in time. Accordingly, ARM's response to FLO is one focus of the paper because they were conceived in and are headquartered in Colombia, making them a Southern organization. Like FLO, ARM has expanded since inception by installing offices and staff in a variety of strategic global locations, but both organizations' origins, headquarters, and self-identifying descriptions clearly designate them as Northern- and Southern-led organizations. The second focus of the paper is the responses of Southern artisanal and small-scale mining organizations (ASMOs) and Southern ethical jewelry retailers to both ARM's and FLO's programs.

The data informing the analysis come from several sources. First, the author interviewed members of certification programs' leadership and strategy teams as well as Southern government representatives in three waves: December 2015–March 2016 (FLO and ARM, in person and by phone); August 2018 (ARM, by phone); November 2018 (ARM and government mining and environment ministry representatives from Peru, Colombia, Gabon, Cameroon and Uganda, in person). Each interview with certification programs was roughly an hour and focused on the evolving relationship between ARM and FLO, why ASMOs engage and disengage with programs, and in ARM's case the reasoning behind their new CRAFT Code. Government interviews were brief, focusing on representatives' levels of awareness of certification programs and beliefs about program prospects relative to other governance methods. Second, the author interviewed two academics recently returned from 2018 field research trips in the mining hotspots of Ghana (Tim Adivilah) and Peru (Ruth Goldstein) because they possessed some of the most recent data available on miners' and governments' ideas, interests, and levels of power, helping to update the robust literature on ASGM in these countries (Diringer et al., 2015, Goldstein, 2019, Hilson and Pardie, 2006, Hilson, 2017, Hilson and McQuilken, 2014, 2016, Smith, 2019, Veiga et al., 2015). Third, the author launched an original, in-depth survey of five Southern ethical jewelry retailers participating in ARM's program to learn what ideas, interests, and resources drove their and their Southern jewelry customers' behavior. And fourth, the author used organizations' websites to compile an original database tracking which ASMO's certified and decertified with ARM and FLO 2013–2019. Since the information on websites changes rapidly, this is an important source of historical and current data.

Analysis of the data was inductive, yet guided by this Special Issue's focus on ideas, interests, and power, which served as a sensitizing and organizing device. Grouping the data in this way enabled basic measurements (high, medium, low) of levels of ideational affinity, interest alignment, and power among actors. Mapping these revealed important points of (mis)alignments and (dis)empowerments between actors that make Southern responses to Northern programs intuitive and potentially predictable.

4. Results

The analysis presents three sets of Southern responses to the Northern certification program launched by FLO in 2011: cooperation and complaint; competition and tepid growth; and supplementation through weaker standards. This section presents these temporally, examining the ways that ideas, interests, and power shaped them.

4.1. Response 1: cooperation and complaint

The story of Southern responses to the idea of ASGM certification begins

Table 1
ASGM Certification Program Comparison.

Issues addressed	Program requirements	
	Alliance for Responsible Mining (ARM)	Fairtrade International (FLO)
Legalization	Acquire legal permits	Acquire legal permits
Child labor	Bans children 7-14, but fewer programs	Allows children 7-14, but more programs
Gender equality	Non-discrimination in hiring	Non-discrimination in hiring
Conflict	Bans fewer conflict types	Bans more conflict types
Ecological restoration	Re-vegetate	Re-vegetate
Critical ecosystems	No impact assessment; no third parties required; focus on livelihoods; nothing on poaching	Requires impact assessment and third-party approval; focus on environmental effects; nothing on poaching
Water management	No dumping; end acid drainage; turbidity caps	No dumping; end acid drainage; turbidity caps
Toxic substances	Retorts (Basic) or mercury-free technology (Ecological); amalgam leaching banned Year 3	Retorts (Basic) or mercury-free technology (Ecological); amalgam leaching banned Year 0
Poverty	Cash: 95% gold price	Cash: 95% gold price
	Account: $4,000 (Basic)	Account: $2,000 (Basic)
	Account: $6,000 (Ecological)	Account: 15% (Ecological)
	Cost-sharing: None	Cost-sharing: None
	Model 1: Fully-traceable Fairmined Labeled gold, license fee	Model 1: Fully traceable Fairtrade Labeled gold, license fee
	Model 2: Semi-traceable Fairmined Incorporated gold (smaller fee)	Model 2: Semi-traceable Fairtrade Sourcing gold (smaller fee or no fee for Registered Goldsmiths)
	Model 3: Untraceable gold, donations called Fairmined Certificates	

in the North. Throughout the 1990s, British jewelry retailer Greg Valerio became increasingly distraught by the social and environmental problems caused by precious mineral mining. In the early 2000s, he learned about a group of Colombian activists who were helping artisanal gold miners adopt more benign production practices and became convinced that gold jewelry would make an excellent 'fair trade' product. To turn this idea into a reality, Valerio partnered with the Colombian activists to create a non-profit organization called the Alliance for Responsible Mining (ARM), which wrote a production and trade standard for ASGM based on those used for fair trade agriculture and convinced traders, refineries, and manufacturers to comply with the standard, resulting in a fair trade value chain. The final steps were to sell the labeled product on global markets and expand certification to additional mining communities, but ARM lacked the resources to do this alone. So in 2003, they pitched the idea of partnership to FLO, which ARM perceived as having the knowledge, reputation and financial resources needed to launch a brand new type of fair trade product.

FLO agreed and cooperation occurred because the two organizations had high levels of ideational and interest alignments as well as complementary power asymmetries. Ideational alignment revealed itself in three ways. Both ARM and FLO believed that FLO had a moral imperative to help artisanal miners because the cause fit with FLO's mission and FLO's high levels of customer recognition and credibility made them more likely than other programs to launch the new product successfully. Second, there were high levels of rapport and trust between Harriet Lamb (FLO's leader) and Greg Valerio (ARM's negotiator). Third, and connecting to interest alignment, FLO believed that diversification through certification of a non-food product was in its strategic interest to pursue, while ARM had a non-food product ready but needed an organizational partner with FLO's skillset to achieve its goals (Sippl, 2015; Valerio, 2013; FLO, 2003). In this way the organizations had aligned interests and complementary power asymmetries: both wanted to certify gold and neither had the resources to do it alone. In 2009, they signed a 3-year partnership contract. Because of FLO's institutional strength and experience, they formally owned the program while ARM served as a consultant. But ARM believed that having their name on the product's label would help their organization grow, so they demanded this as a condition of the deal (Valerio, 2013). The resulting "Fairtrade and Fairmined" gold program hit market shelves in February 2011.

To participate in the program, miners had to achieve certified compliance with one of two versions of the standard, which differed primarily in requirements on mercury: the basic standard required its reduction, whereas the "ecological" standard required its elimination. Both versions of standards governed other issues too, such as proximity to conflict, gender equality, child labor, and water degredation. In return for compliance, the first buyer would pay miners 95% of the international gold price (up from the 70% frequently earned in uncertified markets) plus a premium of 10% for basic gold or 15% for ecological gold which is deposited into a bank account and used collectively by the mining community (Fairtrade and Fairmined Standard, 2010).

Unfortunately, this cooperative program accrued many complaints: miners wanted more money, consumers wanted lower prices, retailers wanted higher volumes and faster delivery times. By 2013, the organizations were due to either renew or end their partnership contract. They ended it for two reasons. First, while they still shared identical interests—reforming ASGM into a more responsible and lucrative livelihood—they now had different ideas about the best strategies for pursuing those interests and responding to the market's feedback. ARM wanted to raise basic standard premiums and start a labeled, mass-balanced gold program that would mix certified and uncertified gold to provide higher volume, lower priced sourcing options. FLO disagreed with this strategy, wanting to *lower* premiums to raise customer demand and therefore volumes of payments to miners, and denouncing mass-balancing as 'greenwashing.' Second, over the course of their partnership, the initial complementary power asymmetries that once drew them together dissolved: FLO learned about mining, ARM learned about marketing, and both learned how to secure grants for ASGM certification projects which made them able to survive financially on their own. In other words, their once complementary capacities became redundant. Now capable of existing as separate programs and unable to resolve their ideational differences, the organizations split in 2013 to create the competing programs that exist today: Fairtrade Gold (FLO) and Fairmined Gold (ARM).

4.2. Response 2: competition and tepid growth

From their respective program headquarters in Germany (FLO) and Colombia (ARM), the organizations revised their programs. As Sippl (2015) explains, both programs kept the core components of the joint program in place, but some key changes flowed from their ideational clash. Both ARM and FLO still aim to create "opportunities" for artisanal miners in low- and middle-income countries by addressing social, economic, and environmental issues; both increase rule stringency over time; both target the same global consumers (ARM, 2014; FLO, 2013). Programs differ in their views on capitalism: FLO seeks to "change conventional trading systems" (FLO, 2013, p.4) whereas ARM aims to build ethically "viable businesses" (ARM, 2014, p.4). This ideological

Table 2
Program licensees (Spring 2019).

	ARM	FLO
Northern licensees	173	53
Southern licensees	23	7

difference, as well as the differences that caused the organizations to part ways in the first place, are reflected in the specific changes programs made to their rules and policies.

Regarding premiums, both programs made the changes they had wanted to. ARM's miners now receive relatively high basic premiums: $4000/kg of gold which is generally higher than the initial joint program's offering as well as twice the amount that FLO is currently offering ($2,000/kg of gold). However, ARM's ecological premiums are generally lower than in the past and than its current competition: ARM offers $6000/kg instead of FLO's and the joint-program's 15% of the international gold price (since 2013, the international gold price has made FLO's program pay more than ARM's for ecological gold in all years except one).

Regarding mass-balancing, however, both programs ditched the initial ideas they fought over and adopted identical changes: in addition to their classic fully-traceable labeled-gold model, they both now offer a semi-traceable mass-balancing model, gold from which does *not* bear program labels. Additionally, ARM aims to drive more money to miners through a donations system for actors unable or unwilling to source artisanal gold. FLO does not do this because it departs too much from its 'trade not aid' philosophy and might allow bad industry actors to continue unethical sourcing. Instead, FLO aims to drive more money to miners by waiving license fees for small-scale goldsmiths. A detailed comparison of programs is in Table 1.

Response to the programs by Southern producer and retail participants is best described as tepid—uptake is present, but growth is slow and the percentage of targets reached is minimal. Licensee uptake (uptake by jewelry wholesalers and retailers who use program labels) fluctuates significantly over time. ARM's and FLO's licensee numbers were roughly even in 2017: 136 to 137, with ARM leading in North America, Latin America, and Asia, and FLO leading in Europe. Since then, ARM's numbers have grown while FLO's have plummeted. In mid-2019, ratios were 196 (ARM) to 60 (FLO), with ARM continuing to lead in North America, Latin America and Asia, and acquiring the lead in Europe in 2019 (FLO leads in Africa) (Alliance for Responsible Mining (ARM), 2019; FLOCERT, 2019)

Table 2 shows that Southern licensees are participating in ARM's program more than FLO's (23 to 7). In part, this is due to a lack of awareness about program choices: none of the ethical jewelers working with ARM knew FLO had a gold program, despite FLO's programs in other sectors being many of these retailer's inspiration for sourcing certified gold. Retailers found ARM through their own research and friends' suggestions rather than through ARM's marketing campaigns, and only some cared about ARM's Southern status (two Colombian jewelers liked ARM's Colombian roots for advertising reasons—they wanted to sell 'locally sourced' gold). More than Southern versus Northern status, most Southern retailers care most about whether a program can provide easy and timely sourcing at the right price. The leading excuse their Southern customer's give for foregoing ARM's gold when shopping is that it is too expensive. After price, customer excuses include not knowing enough about ARM, and retailers do not believe that customers know or care about mercury (retailers do not discuss it and customers never ask). In general, priority issues among Southern retailers and customers are diverse—some care more about the environment while others care more about poverty or child labor. Yet all Southern retailers agreed that a priority issue for Southern customers is 'illegal mining.' And none believed that customers were interested in jewelry made from recycled gold, indicating that demand for mined gold will continue. This is bad for many social and environmental problems, but good for the miners who have no alternative livelihoods and for the programs working to support them.

Table 3
Producer uptake (number of certified mining organizations in Spring 2019).

	ARM	FLO
Africa	0	1
Asia	2 (2 ecological)	0
Latin America	8 (1 ecological)	9
Totals	10	10

Shifting focus to program uptake by Southern producers, despite the average artisanal miner's need for the higher payments program participation provides (the average miner lives in extreme poverty according to World Bank classifications), total program uptake levels are extremely low: data provided by the certification programs suggest that only about 0.01% of artisanal miners are certified. Participating miners span Latin America, Africa, and Asia (see Table 3). And participation patterns vary significantly year to year as ASMOs certify and decertify in different countries and with different programs. In mid-2019, both programs have 10 ASMOs certified: ARM has 8 in Latin America compared to FLO's 9 (although FLO gained most of these in late 2018, having had only 1 in South America in 2017). ARM is leading in Asia (2 ASMOs) and FLO is leading in Africa (1 ASMO). Three of ARM's 10 ASMOs are certified under ecological standards whereas none of FLO's are. But static snapshots of uptake are of limited value: examining uptake over time reveals that 2013–2019, 19 ASMOs gained and maintained certification whereas 7 ASMOs certified then decertified, i.e. dropped out. Dropout rates are currently at 38% for both programs 2011–2019, not including ASMOs who tried to obtain certification but never achieved it (of which Fisher (2018) shows there are several, especially in Africa). If FLO's recent acquisitions are not counted, then their dropout rate is 75% (i.e. 2011-2018, FLO lost more ASMOs than it gained).

The drivers of ASMO decertifications fall into three categories, and the levels of agency present in each category varies. For three ASMOs, desire for more money drove decisions. Oro Verde, the Colombian Ecological ASMO that inspired the original joint-program, was located in a region that was both remote and ecologically protected. Remoteness meant that logistical costs were high, and protected status meant the range of allowable mining methods was narrow. Miners were permitted to pan for gold but wanted to increase production volume by using larger-scale technology. The government denied their request, saying that permits for those methods were already allocated to other larger-scale operators. Rather than resuming mining at status quo levels, they decertified in 2013. Like Oro Verde, Cotopata in Bolivia was small and remote, resulting in low volumes and low margins. When they were additionally hit by lower-than-expected demand circa 2015, they decertified. Low demand also drove the decision of Coodmilla Cooperative (La Llanada) to downgrade from ARM's ecological to basic certification—in 2016 they could not find enough buyers for their higher-priced ecological gold but *could* find buyers at the lower basic standard prices, so they downgraded to the basic standard in 2017. By 2018, however, they decertified from the basic standard, too.

A combination of low financial and governance capacities drove the decertification of Ugandan ASMO Syanyonja Artisan Miners Alliance (SAMA), originally certified under FLO's basic standard. SAMA's struggles with ASMO management delayed their certification, resulting in low cash flows. Accordingly, after their mine collapsed they did not have the financial resiliency to rebuild. Governance struggles, alone, drove Comunidad Aurífera Relave (AURELSA S.A.) to decertify—they could not stop undocumented mining from occurring within their permit's borders. For a sixth ASMO, the desire for more freedom and a *surplus* of capacity drove the decertification decision. Peruvian ASMO Sociedad de Trabajadores Mineros S.A. (SOTRAMI) produced at a sufficiently large scale to qualify for the Responsible Jewelry Council's less prescriptive program, so they switched in 2016.

A small number of ASMOs are working towards but have not yet achieved certification, but the vast majority of artisanal miners are not engaging either program at all. There is some evidence to suggest that a lack of awareness of programs shapes this result. While ASGM has been a livelihood in Ghana and Peru for centuries (Goldstein, 2019; Hilson and Pardie, 2006; Hilson, 2017; McQuilken and Hilson, 2016; Veiga et al., 2015) and certification a governance option for nearly a decade, Goldstein and Adivilah confirm earlier reports that few miners are aware of alternatives to current mining practices and the types of assistance available to them, and report that as of 2018 *no* miners in the key communities they studied were aware of certification programs (a few thought they knew about certification, but misunderstood it to mean either legally permitted mining or having completed any kind of capacity building program, such as Solidaridad's) (Adivilah, 2018; Goldstein, 2019). Most of the Southern government representatives from mining and environment ministries that were interviewed were similarly unaware of FLO's and ARM's programs, and the few who had heard of them saw them as something aspirational to be aimed for in the longer-term future rather than an immediate solution to their present ASGM problems.

Even if awareness about programs rises, it is not clear that the average artisanal miner will want or be able to participate. The average artisanal miner earns about $1.83/day, placing them below the international line for extreme poverty ($1.89/day). By contrast, the small population of miners who have certified earned on average about $15/day *prior* to certification, an income three times higher than the typical poverty line in middle-income countries ($5/day) (World Bank, 2018). This means that most miners who certify are not in poverty to begin with. This gap suggests that it may be difficult for the average miner to build the financial and technical capacity needed to participate in programs.

And even if they built this capacity, it is not clear they will *want* to certify because the interests of miners and programs are misaligned. On legality, for example, programs require miners to obtain mining permits from the government, but miners often mine without them because of the length of time required to get them (if they can get them at all) and because of a range of other political socio-economic reasons (Marshall and Veiga, 2017). In Peru, there is an 8 year backlog of applications; in Ghana, permits can only be approved by one government official located far away from most of the mines, making the process very slow (Adivilah, 2018, Goldstein, 2019). So despite wanting the protection and pride legality provides, the need to earn income immediately to cover daily expenses is often miners' top priority (Adivilah, 2018, Goldstein, 2019). Therefore mining legitimately (in compliance with laws and with the consent of local communities) but illegally is often in the interest of miners but at odds with the interests of certification programs as expressed in their legalization requirements.

Increasing the number of legal permits for ASGM is not always in the interest of Southern governments, either (Adivilah, 2018; Goldstein, 2019; Hilson, 2017; Marshall and Veiga, 2017; Spiegel et al., 2018). On the one hand governments want to provide their citizens with jobs to grow the national economy and secure political support (miners unions are strong in some countries, e.g. Peru, Ghana). On the other hand, ASGM is associated with a range of environmental problems that draw negative attention from Southern governments' donors and partners in multilateral environmental treaties. Since governments perceive large-scale mining to be less environmentally harmful than ASGM, the compromise they typically strike is to allot only a small-number of permits to ASGM, if any, yet not enforce the laws very strictly. This way, miners can earn a living and if ASGM causes a problem that attracts global condemnation, it is likely miners were working illegally, which allows governments to save face. The interests of certification programs (more permits) and governments (fewer permits) are therefore misaligned.

The interests of programs and producer-participants are also frequently misaligned on mercury. Despite the international consensus on mercury's harm represented by the UN Minamata Convention and the decades of educational efforts in the ASGM sector, many miners (and some government members) still have misconceptions about mercury, doubting its toxicity or the amount of pollution attributable to ASGM (Goldstein, 2019; Hilson et al., 2007; Spiegel et al., 2018; Spiegel and Veiga, 2010; Zolnikov, 2012; Veiga et al., 2014; Spiegel, 2009). This is understandable for many reasons: mercury is harmless to the touch, invisible and odorless when vaporized, its harm accumulates over time, communities have used it in mining for generations, and it is mostly Northerners telling Southerners to stop using it—a situation easily interpreted as "green colonialism" in which people with power use environmental justifications to pursue their interests at the expense of those less powerful (Goldstein, 2019). Other miners and community members accept mercury's toxicity, but explain that addressing other harmful issues and situations (e.g. human trafficking, mining accidents, traffic fatalities, and poverty-induced hunger) takes precedence in their lives (Goldstein, 2019; Adivilah, 2018; Spiegel et al., 2018).

Looking at the behavior of certified miners with regard to mercury, two facts are important to note: the majority of certified miners are well-above the poverty line yet continue to opt for the 'basic' versions of standards which allow continued use of mercury instead of the 'ecological' versions which require its elimination, and few ASMOs are investing their social premiums in mercury-free technology. This suggests that poverty is not the only factor driving mercury use, and that not all miners are intrinsically motivated to change this particular behavior. Consumers will therefore have to pay miners more to incentivize change, which goes against consumers' interest in getting the lowest price for the production conditions they want. Since programs rely on consumer support to succeed, this misalignment of interests between miners and consumers is a misalignment between miners and programs, too. In summary, while certification program requirements may be aligned with some of miners' interests, the ideational and political socio-economic contexts in which miners exist means that other interests are of higher priority, resulting in *mis*alignments between the most important interests of programs and producers. Accordingly, while it is clear that power deficiencies among miners are contributing to low uptake levels, interest misalignments mean that even if miners had the power to certify, it is not clear that they would want to.

4.3. Response 3: supplementation via weaker standards

Because of the tepid response to ARM's competing certification program, ARM's third response to FLO is the creation of a new program intended to serve as a 'stepping stone' to their certification program: the Code of Risk-mitigation for ASM engaging in Formal Trade (the CRAFT Code). ARM launched CRAFT in August 2018 to address the needs of both upstream and downstream value chain actors. Upstream, many miners are failing to gain or maintain certification despite wanting to improve their businesses and earn more money. Downstream, value chain actors such as refineries, manufacturers, and retailers are facing increased pressure from the international community to ensure their operations are conflict-free. Gold is one of four conflict minerals targeted by new domestic and regional legally-binding agreements such as the US's Dodd-Frank Act and EU's Conflict Minerals Regulation. These laws require downstream actors to document their supply chains and identify whether any portion of them operate in Conflict-Affected and High-Risk Areas (CAHRAs). If they do, companies must stop using that supply chain or take measures to ensure that their suppliers are not linked to violent non-state actors. Such measures are called 'due diligence,' and the OECD created a Due Diligence Guide (DDG) that companies can follow step-by-step to prove compliance with the laws.

The problem with the laws and the DDG is that they were designed for buyers sourcing from large-scale mining operations rather than from ASGM. Accordingly, compliance with the laws may have the unintended effect of diverting buyers *away* from ASGM because the DDG does not provide enough detail on how to source from ASGM

Table 4
CRAFT code self-reporting VSS.

Sequence	Standard requirements: pass =		Pass enables producer to
Module 1	Organization	Nominate a Responsible Person from the ASM Mineral Producer (AMP) writes or managesthe CRAFT report	Apply
Module 2	Legitimacy	Document attempt or willingness to legalize, attempt to sell through state-approved channels (if present); dialogue with local stakeholders, prove absence of stakeholder complaints against AMP	Sell as candidate
Module 3	Annex II risks—high priority	Affirm absence of certain types of child labor, forced labor, extortion. Obtain third-party confirmation that: no violence complaints are filed against AMP members (or if claims exist, perpetrators are evicted from AMP); AMP does not exist in a Conflict-Affected High Risk Area, or if it does, neither the AMP nor AMP's transport routes are controlled by non-state armed groups or associated with war crimes	
Module 4	Annex II risks—medium priority	Make and adhere to plans to: manage risk of extortion, bribery, money laundering, tax evasion, hiring security forces known for abuse; disclose data to EITI; track mineral origins; foster peaceful relations with public and private security forces; document payments to public officials	Sell as affiliate
Module 5	Non-annex II risks—	Include in CRAFT report aspirations to improve on at least one of these issues: child labor; sexual violence and harassment; discrimination; safety rules, equipment, and first aid; whole ore mercury amalgamation and mercury amalgam burning; cyanide leaching; water contamination; relationships with Protected Areas, farmers and ranchers, large-scale miners, water users; complaint procedures and decision-making structures; formalization beyond legitimacy	Continue to sell as affiliate

appropriately. Artisanal miners may therefore lose access to formal markets and become *more* dependent on informal ones which can be rife with links to conflict. In other words, new laws may deepen rather than mitigate the problem of conflict minerals by disenfranchising the ASGM sector.

ARM's CRAFT code aims to rectify this situation. Just as the original joint certification program based itself on FLO's existing standards for agriculture, the CRAFT code is based on the OECD's DDG. The code requires ASMOs to write a "CRAFT Report" for potential buyers that details ASMO compliance with the rules housed in the code's five modules (Table 4). The modules require the neutralization or mitigation of the DDG's "Annex II" risks, such as child and forced labor, illicit financial flows, and relationships with armed groups. They further suggest (but do not *require*) that miners aspire to address the DDG's "non-Annex II" risks, such as environmental degradation and unsafe, discriminatory workplaces. ASMOs creating CRAFT Reports will be easy for buyers to source from. ARM hopes participating ASMOs will therefore attract more buyers, earn more income, and be better positioned to participate in ARM's certification program in the future.

There are two categories of difference between the CRAFT Code and ARM's (and FLO's) certification programs. The first is procedural, which changes the program's type: CRAFT is a self-reporting program rather than a third-party certification program. This lowers the cost of participation for miners because no audits are needed, but may also lower buyers' faith in the veracity of the claims made. The second category is issue scope. Rather than requiring ASMOs to obtain legal permits, CRAFT requires ASMOs to prove legitimacy, i.e. ASMOs must mine in compliance with national laws and with the consent of local stakeholders. CRAFT is further stricter on conflict but weaker on environmental protection. Regarding conflict, ASMOs must prove that no claims of violence are filed against them, argue that any relationships to conflict-affected areas are benign, and make plans to mitigate risks and disclose financial data. Regarding non-conflict issues, to continue to sell gold as a CRAFT affiliate, miners must write in their report that they *aspire* to address at least one of the issues listed in the Code's instruction manual. In other words, CRAFT does not require miners to undertake any environmental behavior change. It hopes that miners participating in the program will become exposed and sensitized to environmental issues such as mercury pollution through interaction with the program, and that this will naturally build their desire and capacity for change.

ARM was better positioned than FLO to create such program due to its organizational design and growing financial capacity. ARM is a smaller, more agile organization whose board can more swiftly make decisions relative to FLO's, who's board oversees an organization managing roughly 15 product categories and for which decisions must be approved by several multi-stakeholder bodies. Any experiment undertaken in one product category may effect FLO's brand and therefore the performance of its other product categories—a consideration ARM is less burdened by. If, as a hypothetical, FLO created a program similar to CRAFT and activists denounced it as 'greenwashing,' consumers might not only stop buying Fairtrade Gold, they might stop buying Fairtrade coffee, bananas, and wine, too. ARM must worry about program rejection too, but their design and organizational culture foster more risk-taking in pursuit of growth. ARM's geographic expansion via satellite offices in global policy-making hubs also enabled them to create a strong network, which enhanced their power to change. ARM leveraged these social resources to gain the funding and partnerships it needed to shape and launch the CRAFT Code (while ARM is the lead author, the program emphasizes that it is a multi-stakeholder initiative) (ARM, 2018).

ARM's actions have resulted in a program that is well-positioned to enjoy broad uptake at the expense of deep change. CRAFT does a better job than certification programs of aligning its interests with those of miners and Southern governments, who are ambivalent on legality and mercury issues but who want more peaceful and profitable ASGM. It also aligns with the interests of many consumers who want better (but not perfect) gold for lower prices than certification programs offer. CRAFT is further more accessible to the average low-capacity miner because it does not require the purchase of audits or new equipment. The program may serve both ARM's and FLO's interests, too, if it fulfills its intention of inspiring and enabling miners to continue positive reforms, with or without certification.

5. Conclusion

To summarize, this paper examined three sets of responses of Southern ASGM actors to Northern certification programs: cooperation and complaint, competition and tepid uptake, and supplementation with a weaker program. Following analytical practices in the regime literature, it traced the process by which ideas, interests, and power shaped these responses. The idea to certify ASGM flowed from North to South to North, resulting in a joint North-South program that satisfied few constituencies. After three years of turbulent partnership, ARM's and FLO's interests remained aligned, but their ideas about how to pursue those interests and respond to feedback diverged at a moment when their capacities were redundant rather than complementary. With

both the desire and power to act, ARM created a competing certification program. Yet neither ARM's nor FLO's certification program managed to align the interests of miners, governments, and consumers on key issues such as legality, mercury, and 'fair' prices, so programs experienced tepid uptake characterized by low levels of participation by miners and only, on average, among miners already out of poverty. Further, over a third of miners who tried programs quit, and relatively few engage the mercury-free program options. To better align constituent interests, ARM created a self-monitoring and reporting program called the CRAFT Code to supplement its certification programs, believing CRAFT's lower costs and lower thresholds on legality and environmental issues would make it both more appealing and accessible to miners and global retailers.

Future research should assess the performance of the CRAFT Code, specifically whether the program is serving as a ladder-to-the-top for miners (i.e. they 'graduate' to certification programs) or whether CRAFT is siphoning participants away from certification programs, serving as a race-to-the-bottom mechanism. Relatedly, more research is needed on consumer responses to both CRAFT and certification programs to better understand consumer priorities and tolerance for tradeoffs. Research on Southern consumers' ethical preferences would be particularly useful and align with the growing literature on South-South trade (Schleifer and Sun, 2018). Research is also needed on the preferences of understudied value chain members, such as refineries and manufacturers, regarding certification. And in addition to noting that programs would benefit from being sensitive to local geological, social and political contexts, deeper understanding of the determinants of effective mercury reduction and elimination programs will be necessary for the protection of global human and environmental health.

Overall, the findings from this case study reflect some basic intuition about Southern responses to voluntary programs created in the North. When program and participant ideas and interests are aligned, and participant power levels are high, Northern-led programs should enjoy widespread uptake of meaningful rules. When misalignments and low power levels are present, Southern actors will be unwilling or unable to participate in programs or create competing ones, so other governance forms will likely prevail. In between these extremes is when Southern actors are likely to launch home-grown programs because there is a gap to fill between what producers want and what initial programs gave, and Southern actors have sufficient power to create programs aiming to fill that gap. Environmental standards in such program may be weaker, but uptake may be more widespread.

The ASGM case falls in this middle zone: medium to low levels of ideational and interest alignment coupled with medium levels of Southern actor power led ARM to create two programs aiming to be more popular than FLO's among Southern producers and global consumers (first its competing certification program, then its supplementary CRAFT Code). Across actor types (activists, retailers, producers), Southern responses seem driven less by feelings of Southern solidarity and more by strategic desires and capacities. As of mid-2019, producer uptake is roughly even across Northern- and Southern-led certification programs. And while most Southern retailers only sell ARM's gold, data indicate they partner with ARM not because they prefer it to FLO, but because they did not know FLO's program existed. Finally, ARM's motives are varied. Yes, they created CRAFT to align better with miners' interests, but also because an institutional window of opportunity opened via new legally-binding conflict mineral laws and actors willing to pay for programs that help businesses comply with them. While the CRAFT Code is free to use, its development and maintenance results from donations, which serve as a new income stream for ARM and its partner organizations, and build ARM's visibility and reputation among potential donors (ARM, 2018).

Future research should use this ASGM certification case study in conjunction with the other sector case studies in this Special Issue to probe the generalizability of the paper's intuition on Southern responses, an important task helping scholars and practitioners learn more about why and how global regimes governing the environment, development, and conflict are changing. Understanding the changing nature of regimes is essential to guiding them towards their most equitable and effective configurations which benefits global human and environmental well-being.

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