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NON-STATE MARKET INSTRUMENTS FOR RESPONSIBLE OIL AND GAS PRODUCTION: A HISTORICAL STUDY OF EQUITABLE ORIGIN E0100TM CERTIFICATION SCHEME

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Abstract

Environmental certification is a voluntary complementary policy tool championed by non-state actors and supported by the state. This paper explores the historical development of a novel certification scheme for the oil and gas industry. Although the literature is rich with research into certification schemes, however, there exists no literature on the Equitable Origin (EO) certification scheme for the oil and gas industry, thus underlining the importance of the historical approach adopted in this paper. EO certification scheme is an example of a non-state actor; EO adopts a market-based incentive approach to environmental regulation in the oil and gas industry which involves an independent audit of individual production sites based on six key principles. When a site attains certification, consumers are granted the power of choice to reward responsible production by only purchasing labeled petroleum products. The paper also explores the role of NSAs' in environmental regulation and uses the incentive theory of motivation to explain how a well-structured market instrument certification scheme can facilitate responsible oil and gas production. This paper does not address the effectiveness of this scheme because, as a novel scheme in its nascent stage of development, it is imperative to have the holistic grasp of its history and promises before the literature can address its effectiveness. This paper is anticipated to open up future research into the weaknesses and effectiveness of the scheme in encouraging responsible oil and gas production.

Keywords: market Instruments, equitable origin, certification, labeling, oil and gas industry, non-state actors, incentive theory of motivation.

1. Introduction

Public resource managers are receiving growing environmental pressure from various stakeholder groups such as customers, governments and shareholders (Berry and Rondinelli, 1998) to be more responsible and accountable. Easy access to information has altered the attitude of consumers, who have prioritized the protection of the natural environment over economic growth in some cases (Mainieri et al., 1997). On the other hand, shareholders and investors involved with public-resource extracting



companies are also becoming more and more reluctant to assume environmental risks (Waddock, Bodwell and Graves, 2003). As consequence, environmental management has become an unavoidable issue for responsible public resource management.

The ubiquitous nature of environmental challenges changed the nature of environmental policy making in the 1970s, to include non-state actors (NSA). The Stockholm Conference, organized by the United Nations in 1972 gave recognition and impetus to NSA as collaborators in the quest for developing sustainable and responsible public resource management schemes in solving environmental challenges. This phenomenon gave rise to a policy shift from regulative resource management to a focus on incentivizing responsible public resource management by stimulating positive public perception and consumer preference (Cashore, 2002). For example, the Forest Stewardship Council (FSC) was created in 1993 to tackle tropical deforestation (FSC.org, 2015). The Marine Stewardship Council was created in 1996 to mitigate the future occurrence of issues like the Grand Banks Cod Fish collapse (MSC.org, 2015) and a host of other non-state initiatives like coffee (Fair Trade.org) to food production (Food Alliance) and even tourism all in the renewable resource strata.

Methodologically, the paper adopts a historical approach. Extensive literature was reviewed based on previous research into market-based instruments, and internet resources for the certification scheme. The dependence on internet materials for the certification scheme is premised on the novelty of the scheme and the dearth of scholarly papers discussing it.

The paper is organised into six parts. This first part introduces the paper, and the second part outlines the theory of motivation as a guide. The third part focuses on non-state actors and their role in environmental regulation. The fourth part examines market instruments as one of the tools adopted by non-state actors (NSAs) for environmental regulation. The fifth part focuses on a historical understanding of Equitable Origin (EO). The sixth section then provides an analysis of the arguments for why and how the EO scheme could facilitate responsible oil and gas production.



2. Theoretical Underpinning: Incentive Theory of Motivation

The rationale for environmental certification as a complementary tool for environmental policymaking can be explained using incentive theory of motivation. This theory is from the field of behavioral psychology.

Incentive theories emerged in the 1940s and 1950s (Hockenbury and Hockenbury, 2003). The Incentive Theory of Motivation is supported by many behavioral psychologists, the most prominent one being B.F. Skinner. Alternatively called the Reward Motivation Theory, it posits that motivation is driven by the prospect of an external reward or incentive (Bernstein, 2011). An incentive is a stimulus that encourages an individual to perform an action in the absence of any apparent physiological need. In business, an incentive can be monetary i.e. tax breaks, increasing stock or shareholder value, asset worth or market share. The incentive can also be non-monetary such as performance reputation, public perception, and goodwill. What is necessary is for the reward to be given after the performance of an action or behavior with the specific intention of eliciting the repeated performance of the same behavior (psychology.com, 2015). It focuses on the relationship between motivation and behavior.

Borrowed from the field of behavioral psychology, Skinner and other behaviorists believe that a person will more likely do an action that is positively received; as such a person will avoid an action that is negatively received. People are pulled towards behavior that offer positive incentives and pushed away from behavior associated with negative incentives. In other words, differences in actions from one person to another or from one situation to another can be traced to the incentives available and the value a person places on those incentives at the time (Bernstein, 2011). The theory hinges on the following assumptions; (i) Incentives can be used to get people to engage in certain behaviors, but they can also be used to get people to stop performing certain actions. (ii) Incentives only become effective if the individual places importance on the reward. (iii) Rewards have to be obtainable to be motivating (explorable.com, 2015).

3. Non-State Actors and Environmental Regulation

Environmental policy is as a system of laws, regulatory measures, courses of action, and funding priorities concerning the environment, promulgated by a governmental entity or its representatives



(Dean, 2000). Environmental policy instruments broadly defined are tools by which governments, and in some cases NSAs move from the identification of problems to the actual implementation of policy responses. This paper focuses on the historical development of EO as a market-based (MB) environmental policy instrument.

MBIs are proxies for market signals in the form of change to relative prices and financial transfer between polluters and society (Sprenger, 2000). Unlike the command and control regulatory regime, which places linear constraints on the polluter, a market-based instrument acts via economic signals or incentives to which polluters are expected to respond to.

Before the 1970s, the initiative for environmental pollution control was championed by the state. This state-centric initiative is, however, changing with the emergence of environmental issues as international concern in the 1960s prompted by a growing sense that state-level action has not been sufficient in dealing effectively with this burgeoning problem (Barry, 2007). An example of this was the failure of states at the United Nations Conference on Environment and Development in 1992, to reach a consensus on creating a sustainable forest policy. This failure led to the creation of the FSC in 1993, by non-state actors to help tackle accelerating tropical deforestation, environmental degradation and social exclusion (Vogt et al., 2000)

In reaction to this phenomenon, Barry (2007) posits that there was a drive by government to include NSAs in the path to finding innovative solutions to human-induced environmental issues. This inclusive process consequently facilitated the emergence of domestic and transnational private governance systems, which derived their policy-making authority not from the state, but from the manipulation of global markets and attention to customer preferences (Cashore, 2002).

The FSC certification scheme is an example of a tool adopted by non-state actors in influencing and regulating environmental activities; it is in most cases voluntary and has incentives attached to it (Cashore, 2002). According to the United Nations and FAO Forest Products Annual Market Review (2009-2010), FSC is the fastest-growing forest certification system in the world with over 180 million ha forest, in 80 countries, certified to FSC Standard. The forest is a renewable natural resource, and in



Canada alone, over 50 million ha has been certified to the FSC forest management standard, making up 31% of global forests certified in Canada (FSC.org, 2015).

Conversely, petroleum, being a non-renewable resource, is bereft of a similar innovative initiative in a drive to operate more responsibly. The rise of former importers of crude oil to the committee of petroleum exporting countries with the use of unconventional exploration techniques has compounded current environmental issues in this sector (Li and Carlson, 2014). As of today, the United States is experiencing its most rapid expansion in oil and gas production in four decades, owing mainly to the implementation of new extraction technology policies such as horizontal drilling combined with hydraulic fracturing. The environmental impacts of this innovation, from its effect on water quality to the influence of increased methane leakage on climate, have been a matter of intense debate (Li and Carlson, 2014). Similarly, the petroleum industry has been fraught with many challenges that have spanned from accidents to perceived negligence (Edman, 2015). The industry has had critical performance problems like the Santa Barbara oil spill in 1969, the Piper Alpha platform explosion in 1988, the Exxon Valdez oil spill in 1989, the Macondo blowout in 2010, and the British Petroleum oil spill in the Gulf of Mexico to name a few. The industry's ability to prevent and respond to these environmental and human disasters has not met public expectation (Edman, 2015). This situation has historically resulted in lengthy and not very productive litigation battles (Equitableorigin.org, 2015). Cashore (2002) echoing this point, opined that an important task facing governments, non-governmental organizations (NGOs), business, and global civil societies in the 21st century is the need to develop effective environmental policy instruments for encouraging the environmentally sensitive behavior needed for sustainable development.

4. Market-Based Instruments and Environmental Regulation

In the last two decades, the field of environmental science and policy has made increasing efforts to value ecosystem services in monetary terms, articulating such values through markets to create economic incentives for conservation (Balmford et al., 2002). Some countries and institutions now accept that the way to protect the environment is to price nature's services and trade these services within a



global market (Daily, 1997; Anderson and Leal, 2001). These price mechanisms have however in practice been Pigovian, which is to say government centered (Baggethun and Perez, 2011). However, consumers are now emerging as important agents in choosing to exercise collective power to boycott polluters and poor labor practices and purchasing products from companies with better environmental and social standards. These new schemes are often coordinated by transnational NGOs (Elkington and Hailes, 1993) and are called the Coasean solution where a privately driven market exists, and ecosystem services can be priced, bought, and sold (Baggethun and Perez, 2011).

In theory, Stavins (2001) opined that if properly designed and implemented, market-based instruments (like certification schemes) can facilitate pollution clean-up at the lowest overall cost to society, by providing incentives rather than equalizing pollution levels among firms as with uniform emission standards. Pigovian market-based instruments are designed to force producers and consumers to take account of the environmental implications of their action. This approach gives producers the freedom to choose and adopt their activities, enabling them to apply least-cost solutions and create a dynamic, which encourages the search for and the application of better and more affordable means of maintaining and improving environmental quality (Andersen Et al, 2000). However in practice as Stavins (2001) notes, this has not been the result, as these instruments have not achieved what they claimed.

5. Equitable Origin EO 100TM Certification: Historical Development of a Novel Approach to Responsible Oil and Gas Production 5.1.Setting the Pace

Equitable Origin was founded as a market-based tool that seeks to complement contemporary regulatory policy instruments by David Poritz, a lawyer from the United States, and Manuel Pallares, an Ecuadorian biologist and authority on the relationship between resource extraction and Indigenous Peoples in the Amazon Basin in 2009. They worked for nearly a decade to empower local and indigenous communities in Ecuador to protect themselves and their lands from the often damaging practices of irresponsible operators in the extractive Oil and Gas industries. Recognizing that litigation did not produce timely results or consistently effective action, Poritz realized the need for a market-based mechanism to incentivize oil and gas companies to operate with the highest levels of social and environmental performance (Equitable Origin, 2014).



The idea was born in January 2009 and as at May 2014, Equitable Origin spearheaded an effort that brought together various stakeholders, who negotiated and influenced the creation of the EO100[™] Standard. This initiative is driven by passion for greater transparency and credibility in the oil and gas industry; through independent, third-party verification of best practices and market incentives.

5.2.A Timeline of the Process

The first step was to create a multi-stakeholder group in February 2009, to develop a consultation draft of the EO100[™] Standard; the group was also to create a rating system for social and environmental responsibility in oil and gas exploration and production activities. The multi-stakeholder group comprised oil and gas companies, governments, local and indigenous communities, academia, environmental and social NGOs in Ecuador.

By December of 2009 the first consultation draft of the EO100[™] Standard was made public. With this success, over 70 workshops were held with local and indigenous communities affected by oil and gas exploration and production in Ecuador. Many of these workshops took place in Ecuador's hydrocarbon regions. Also, through the Coordinating Organization of Indigenous Communities of the Amazon Basin (C.O.I.C.A) and Organization of Indigenous Peoples of the Amazon Basin of Ecuador (C.O.N.F.E.N.I.A.E), consultations were held with representatives of Indigenous Peoples' Organizations (I.P.O) like the Achuar, Sápara, Shiviar, and Shuar. Between June and November 2010, Equitable Origin held public comment sessions and over 1,300 comments were collected from stakeholders.

Moving to the next stage in January 2012, a document titled EO100 Standard was presented to industry specialists in Washington D.C., Paris and Manaus on one hand, and international NGOs including the Nature Conservancy, Wildlife Conservation Society, Conservation International, and the International Union of Conservation for Nature on the other. Other institutions consulted include experts in International Standards from Accountability (I.S.A), the International Finance Corporation of the



World Bank, the Inter-American Development Bank, International Standard Organisation (ISO) and International Social and Environmental Accreditation and Labelling (ISEAL).

Similarly, a formal Stakeholder Consultation Committee was formed with representatives from four stakeholder groups: Oil and Gas producers, Government Agencies, Local and Indigenous communities, environmental and development NGOs and Academia. This committee was charged with the responsibility of communicating deliberations to all stakeholders and providing a conduit for feedback. Important to note also is the fact that by December 2012, Equitable Origin Stakeholder Council and Technical Committee was established; EO is also a full member of ISEAL as at May 2014. The current revised version of the EO100[™] Standard was made public in February 2014.

Type of Organization	List of participants
Government Agencies	Ecuador Ministry of Environment Ministry
	of Mining and Energy
	National Hydrocarbon Agency
	Country Brand Colombia
Oil and Gas Industry	Ivanhoe Energy Ecuador
and Service Providers	Petroamazonas EP
	Walsh Ecuador
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Indigenous Peoples'	Coordinating Organization of Indigenous Communities of the Amazon
Organizations	Basin (COICA)
	Organization of Indigenous Peoples of the Amazon Basin of Ecuador
	(CONFENIAE)
	Organization of Kichua Communities of Napo (FIKAE)
	10/07
NGOs and Academia	Fundación Pachamama
	Wildlife Conservation Society (WCS)
	Universidad San Francisco de Quito (USFQ)
	Universidad de las Américas (UDLA)
	S CALLER S
Standard	International Standard Organisation (ISO)
Organizations	International Social and Environmental Accreditation and Labelling
	(ISEAL)

(Table created by author showing stakeholders consulted during the development of the $EO100^{TM}$)

5.3. Developing the EO 100^{TM} :

The multi-stakeholder consultations revealed the need to address issues like labor rights, cultural rights, income, social services, value chains, water, soil, biodiversity, and energy to ensure sustainability. They further streamlined these issues into Social, Environmental, and Economic impact of oil and gas operations in extractive locations. The end product of the stakeholder process resulted in the creation of a standard certification document called EO100TM that is the foundation on which the Equitable Origin System exist (EO100TM Standard, 2012).

EO100TM outlines six sustainability principles that will serve as a benchmark for assessing responsible production practices in the oil and gas industry. The first principle is strictly social in scope



and seeks to scrutinize business practices. It is called *Corporate Governance, Accountability, and Ethics*. It has the objectives of auditing the integrity, transparency and conformance practices of an oil company within its host environment. The second principle is social and economic in scope, scrutinizes labor and cultural rights, income, value chain and social services. It is called *Human Rights, Social Impact, and Community Development principle*. It has the objective of auditing an organization's respect for the fundamental human right and dignity of the individual, according to the United Nations declaration on human rights, community development, and stakeholder engagement. The third principle also has a social and economic scope, with a particular focus on the employees. It is called *Fair Labor & Working Conditions principle*. The audit is on an employer's compliance with International Labor Organization

(ILO) conventions number 29, 87, 95, 105, 111, 138 and 182 which are core standards covered by the 1998 ILO Declaration on Fundamental Principles and Rights at work, and its follow-up.

The fourth principle is also social in scope. It is centered on cultural rights. It is called *Indigenous Peoples' Right principle*. The audit of this principle is based on ensuring that development projects recognize indigenous people's rights as determined in the Union Nations Declaration on Human Rights of Indigenous People ILO Conventio169, and to assure Free, Prior and Informed Consent (FPIC) of affected Indigenes.

The fifth Principle is environmental in scope; it is centered on sustainable practices around Water, soil, biodiversity, energy carbon. This principle is called *Climate Change, Biodiversity & Environment principle*. The certification audits practices towards the protection of the biophysical environment and ensuring that environmental and social impacts are clearly addressed throughout the project life cycle, with negative impacts avoided or minimized and opportunities for positive impacts identified and implemented.

The sixth principle is also environmental in scope and is focused on natural resources. It is called *Project Life Cycle Management*. The audit of this principle is to ensure the adoption and use of organizational and operations management systems and mechanisms. This audit is to assess project risks, including risk to communities, stakeholders, and business partners, and ensure systems manage and



improve ethical, human rights, social and environmental business practices associated with Principles 1 through 5 of the EO100 Standard.

5.4. Verification, performance, measurement and scoring of the principles

These principles are to be used as a benchmark and performance measure in the audit and certification of production sites, by trained third-party independent auditors. According to the EO100TM document, independent auditors are employed to inspect and certify production sites for ethical, social and environmental business practices that align with the EO100TM six principles. This auditing or verification process generates a numeric score for operators, representing the degree to which its operations meet the performance targets of the EO100TM standards. There are three levels of performance target verification ranked against these principles as contained in the EO document. Performance Target One is the minimum criteria a production site needs to pass to be certified. It is awarded for a project that meets industry norms for good policy and performance practice regarding all six principles outlined above. Performance Target Two and Three are however not explicitly defined in the document, but it is a performance target scoring for using innovative solutions to solve the challenges the above six principles may not be able to address. Once a site is certified as compliant with the above six principles, a tradable logo is awarded which can be traded with consumers in the EO market; this process is called Payment for Ecosystem Services. P.E.S is the conditioned and voluntary transaction between at least one provider and one beneficiary of well-defined ecosystem services (Wunder, 2005). The underlying rationale is that beneficiaries of ecosystem services should compensate the stewards that maintain or protect the environment from which they benefit.

In summary, as a voluntary market instrument, it seeks to enable consumers to reward responsible oil and gas producers through a certificate trading platform that returns sales revenue generated from end-users of oil and gas products to a certified project site to invest back into community development and environmental protection. A certified production site generates EO Certificates, each representing one barrel of crude oil which can be purchased by consumers who want to match their consumption of



oil or gas products to responsible production. Revenue from certificate sales goes toward social or environmental improvement projects at certified production sites (equitableorigin.com).

5.5.Using a practical example: A Case Study of the Quifa and Rubiales fields

The Quifa and Rubiales fields are located in Orinoquia region, a vast, inter-tropical savannah intersected by relatively high-biodiversity gallery forests. The forests function as biogeographic corridors for wildlife. The forest is excluded from all operation activities in consideration of the high density and diversity of species in the area. Pacific Rubiales has since 2012 committed to adopting the

EO100[™] Standard at the Quifa and Rubiales fields. The oil and gas firm spent over 18 months in implementing various provisions of the certification scheme in preparation for a certification audit in 2014. The audit was conducted over two weeks in late spring and early summer of 2014 by a team assembled by the EO-approved Certification Body Deloitte & Touche Ltd, Bogota, Colombia. The private independent audit team from Deloitte & Touche Ltd. consisted of two auditors and one lead auditor. In addition to reviewing policies & procedures, the auditors observed operations and spoke with workers, contractors, and the company's management. They also spent significant time in the field, interviewing representatives from local NGOs, churches, union leaders, members of surrounding communities, and indigenous leaders to verify and contextualize findings on the site.

The EO100[™] Standard incentivizes continual improvement of practices at certified sites, and the Pacific and Rubiales sites will be audited annually by Equitable Origin-approved organizations to monitor the progress. The Quifa and Rubiales sites achieved a 100 percent EO100[™] Certification Score with six areas of improvement identified. In addition to their 100 percent certification score, the sites received an EO Leadership Rating of Bronze, indicating that the operations went beyond best practices in occupational health and safety, workers' rights, ethical conduct, human rights, and engagement with indigenous people.



5.6.Prospects and Challenges

Market instruments generally and environmental certification, in particular, come with the promise of benefits; this motivates and incentivizes businesses to adopt them. They could span from increased market shares, or price premium from carrying a logo, to better relationship with shareholders.

As a non-renewable natural resource, oil and gas exploration comes with a considerable amount of production externalities. These externalities cannot be differentiated by consumers when they purchase end products of petroleum and gas. However with the introduction of the EO certification logo, individually certified production sites can differentiate their products in the market. This differentiation is anticipated to avail logo carries an avenue to charge an extra premium for their products from environmental conscious end users. This process, in theory, is anticipated to incentivise oil and gas companies to be more ethical and responsible in their operations by creating a reward system for compliance.

Inherently, market instruments have some weaknesses; however this does not preclude its potential as useful complementary policy tools. Stavins and Whitehead (2005) posit a focus on improving the design of the market instruments to counter the resistance from private firms, to calm fears of environmental groups and to ensure that cost saving is achieved as such policy tools have promised. Thus, this paper opens up the debate for further empirical research to provide a scientifically sound assessment of the weaknesses and effectiveness of certification and labeling schemes in enhancing responsible oil and gas production standards.

6. Conclusion

This paper has provided a historical perspective on the development of a novel market-based certification scheme (Equitable Origin) for responsible oil and gas production activities. The paper has also explored the potential of the certification scheme to facilitate responsible oil and gas production using the incentive theory of motivation. The incentive is a driving factor for business activities; the more incentivising a regulation is, the higher the chances of compliance. The promise of compliance benefits is what market instruments like certification schemes bring to the environmental policy toolkit.



The EO certification scheme in theory holds the promise of encouraging responsible oil and gas production. Be that as it may, the effectiveness of this certification scheme in the oil and gas industry needs further research. However, it can be submitted that if calibrated properly as opined by scholars like Stavins and Whitehead, a market-based certification scheme in the oil and gas industry could hold the potential to facilitate responsible oil and gas production.

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