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Why Negotiate a Legally Binding Mercury Convention?

By Steinar Andresen, Kristin Rosendal, and Jon Birger Skjærseth¹

Abstract: The purpose of this paper is to explain how and why consensus was reached on a legally binding approach given the opposition of powerful actors. Why did the US and key emerging economies change their positions? We apply tools from the regime formation literature - classical perspectives on power, interests and knowledge –and the use of different leadership tools to shed light on the issue. Knowledge-based intellectual leadership was exercised by the UNEP Secretariat, providing new information on the seriousness and scope of the problem. Power-based leadership through unilateral action was provided by the US. When the US changed position after change in domestic leadership, political costs increased for other opponents. Finally, interest-based instrumental leadership was provided by many proponents, with UNEP and among others the EU in the lead. Still, conflicts remain on control measures and the form of financial mechanism.

Keywords: Mercury; International negotiations; UNEP; Chemicals; Global governance; Leadership

1 Introduction

There has been international agreement within UNEP since 2003 to take international action on the serious environmental and health problems posed by mercury, but key actors differed on what is the best approach to deal with the problem. Powerful actors like the US and emerging economies like China and India have favored a voluntary approach. The major proponent of a legally binding approach (LBA) has been the EU and small states like Switzerland and Norway. Most African states prefer this approach too. Nevertheless, this was what slowed the international process until the UNEP Governing Council (GC) quite surprisingly agreed to go for a legally binding approach in 2009. It was agreed that a mercury convention should be negotiated by 2013. International negotiations on mercury take place within the framework of the so-called “UNEP chemicals cluster”, i.e. the Stockholm Convention on Persistent Organic Pollutants (POPs), the Rotterdam Convention on Prior Informed Consent for Trade in Chemical Substances, and the Basel Convention on Disposal and Trade in Hazardous Waste.

The purpose of this paper is to explain how and why consensus was reached on a legally binding approach given the opposition of powerful actors. Why did the US and key emerging economies change their positions? Inasmuch as the mercury regime is in the making, we apply the tools from the regime formation literature to seek to explain why the parties suddenly agreed to an LBA. Can perspectives on power, interests and knowledge-based leadership help shed light on this

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development? We apply these perspectives to the major LBA opponents and proponents, including the UNEP Secretariat.

The next section introduces the problem of mercury, before presenting the theoretical framework. We outline the process leading up to the 2009 decision before attempting an explanation of how and why agreement was reached. We conclude with the status of the mercury negotiations and some thoughts on the analytical and empirical lessons to be derived from this study and their implications for the emerging mercury regime.

2 The Problem of Mercury

Mercury is a heavy metal. It is in widespread use globally and persists in the environment. There is full scientific agreement that mercury is a serious toxin with global ramifications (Selin and Selin 2006). Mercury exposure can affect fetal neurological development and has been linked to lowered fertility, brain and nerve damage, and heart disease in adults with high levels of mercury in their blood (UNEP 2012a). The main controversies concern how the problem should be dealt with, including what type of international instruments that should be applied. Mercury is a naturally occurring element and can be released into the air and water through weathering of rock containing mercury ore or through human activities such as industrial processes, mining, deforestation, waste incineration, and burning of fossil fuels. The most important single source of primary mining is in Kirgizstan, the only major producer of elemental mercury, though China is the world's largest producer through processing of mercury. Mercury can also be released from a number of mercury-containing products including dental amalgam, electrical applications, laboratory and medical instruments, batteries, seed dressings, and antiseptic and antibacterial creams. The consumption of fish is by far the most significant source of ingestion-related mercury exposure in humans and animals, although plants and livestock also contain mercury due to bioaccumulation from soil, water and atmosphere.

The problem is as difficult to deal with as it is hard to control the sources, given the importance of mercury to industrial processes in rapidly emerging economies (Pirrone et al. 2010). Mercury use in artisanal and small-scale gold mining has been estimated at approximately 1400 metric tons a year, making it the largest mercury-demand sector globally. Virtually all of the mercury used is released to the environment. Due to the often informal and sometimes illegal status of the gold mining sector in many countries, lack of reliable data is one of the largest challenges in addressing the issues of the sector. Burning of coal is the largest single source of mercury air emissions, having more than tripled since 1970, accounting for some 45% of total emissions while 18% comes from gold mining. Coal burning for power generation is increasing alongside economic growth, and China is the major emitter here (Pirrone et al. 2010). The US and India are number two and three in terms of release, but emissions from China are three times the combined emissions of the US, and India. Emissions are now strongly reduced from Europe and North America but a considerable amount of Asian emissions end up in Europe and particularly the US (UNEP 2008c). According to the Global Mercury Partnership, about 100 facilities in forty-four nations have some industrial mercury cell chlorine capacity. This is expected to fall to fifty-five plants in twenty-four countries according to plans for future closure in the European Union, India and the US. Affordable alternatives to mercury are available for most products (including thermometers, lamps, batteries, thermostats), but commercially cost-effective alternatives for mercury in batteries and lamps are still needed (UNEP 2012b).

Against this backdrop, interests are likely to diverge according to whether a country is using and producing mercury in industrial processes or is itself vulnerable to other countries' use of mercury.

Poor countries may need financial help to clean up mercury pollution or to compensate them for reducing mercury use for the common good.

3 Conceptual Approach

Regimes are social institutions composed of *agreed-upon* principles, norms, rules, and decision-making procedures that govern the interaction of actors in specific issue areas. These are the rules of the game that determine the character of recognized social practices (Young 1998). These ideas feed into our question of what made key actors agree to an LBA. The study examines the international negotiation process up to the decision to go for a legally binding approach to govern mercury. The study takes it as given that an LBA has a larger potential to provide an effective response to the mercury challenge under specific conditions. In a nutshell, voluntary “soft law” approaches are generally seen to be more feasible, faster and flexible than legal arrangements, while binding rules tend to be more credible and have a higher capacity to facilitate implementation and compliance, better reflecting what states are prepared to do. Binding rules also tend to foster stronger institutions for monitoring, enforcement and compliance and to enhance trust in level playing fields for industry, and hence less fear of competitive disadvantages among complying states. It is reasonable to expect that hard law will be more effective than soft law in changing policy and behavior, given the same level of ambition and monitoring of parties’ performance and enforcement (Abbott and Snidal 2000; Skjærseth et al. 2006).

For the explanatory part, we use theoretical perspectives on regime formation processes, with a focus on leadership. Leadership can be defined as “an asymmetrical relationship of influence, where one actor guides or directs the behavior of others towards a certain goal over a certain period of time” (Underdal 1991, 140). The goal in this case is formal negotiations on an LBA. The issue of leadership is discussed primarily within the institutional, knowledge-based and power-based schools of regime formation (Young 1991).²

Leadership exerted by power implies a powerful actor who, through arm twisting or similar measures, is able to convince “laggards” to join the majority in order to reach a common goal. This type of leadership can basically only be exerted by powerful states. We apply the “benevolent” version of power-based leadership or hegemon, as exercised through unilateral action (Underdal 1991). Unilateral action may be coercive in effect, but not necessarily for the purpose of inducing others to change their position. Unilateral action by one actor may “set the pace” to which others may find themselves more or less compelled to adapt. If this is the case, we would expect to find actors facing increasing political costs as they become isolated in their opposition to an LBA. Political costs can increase, particularly for countries with an environmentally friendly reputation, by public “shaming and blaming” (Stokke, 2007).

In contrast, an “intellectual leader” “produces intellectual or generative systems of thought that shapes the perceptions of those who participate in institutional bargaining” (Young 1991, 300). Evidence of learning processes and acceptance of new ideas is difficult to trace, but an independent position and control over the production and dissemination of relevant information would be two key indicators. In a similar vein, an “instrumental leader” often uses and amplifies information and ideas in getting the issue higher on the agenda, or is able to forge agreement through clever moves such as linking issues in ways that tap the integrative potential between negotiating parties,

² For a discussion of regime formation from the perspective of the power-based/realist school, see e.g. Keohane (1984); Miles et al. (2002) and (Falkner 2005). An account of the institutional and knowledge-based schools can be found in e.g. Hasenclever et al. (1996) and (Haas 1992) respectively.

constructing package deals at a higher feasibility level (Young 1991, 294).³ Here we would expect to find actual changes in how parties perceive their interests to be reflected in the emerging regime for mercury. It could be due to more tempting package deals through financial benefits or through links to other issue areas, which could alter the way they perceive their interests. We note here that instrumental leadership is closely connected to interest-based perspectives, while intellectual leadership is more knowledge based. The two ideal types may not be easy to distinguish in practice and could also strengthen each other.

Table 1 Explaining mercury regime formation: types of leadership and expectations

Source of leadership	Type of leadership	Expected actions	Expected response
Power	Unilateral action	Influential actor “set the pace”	Opponents find themselves compelled to adapt due to political costs
Knowledge	Intellectual	Independent actor produces and disseminates key information	Opponents accept new information that changes ideas of what constitutes the best solution
Interests	Instrumental	Political entrepreneur creates issue linkages and package deals	Opponents change perception of interests through compensation/financial benefits

When studying the 2009 decision to negotiate a binding mercury regime, we shall attempt to explain its evolution, especially the extent to which leadership has been exerted—and to what effect. Our main focus is on the key players in this process, including countries with developing economies as much as developed countries. Among the developed nations, we shall focus primarily on the EU and the US, which have been key players throughout most of this process, while smaller states like Switzerland and Norway have also played important roles. Among developing countries, we focus particularly on emerging economies like China and India, both key players in this process of regime formation. We concentrate less on non-state actors, although their role and influence are briefly mentioned. While some green NGOs like the International Pop’s Elimination Network (IPEN) and the Zero Mercury Group (ZMG) have been very active, there has been virtually no industry representation during the process of negotiations. Insofar as the whole process is nested in the UNEP system, and it has played a key role as facilitator, not least in providing information and giving input to the architecture of the regime, we shall also be exploring the role of the organization.

Methodologically, we apply document analysis and interviews. We draw our data material from the *Earth Negotiations Bulletin* and ENDS reports, central documents in the mercury negotiation process, and from interviews with senior figures in the UNEP chemicals cluster and the Norwegian Ministry of the Environment (party to the negotiations).

4 Pre-Negotiating the Mercury Treaty⁴

4.1 Initial Development (2001-2007): An Issue for the UNEP Governing Council

The risks of mercury pollution have been addressed in international and regional forums since the 1970s (Selin and Selin, 2006). It was not until 2001, at the twenty-first session, that UNEP’s

³ The distinction between and definition of structural and instrumental leadership have been subject to some debate. A structural leader may also employ entrepreneurial (instrumental) skills, while the opposite transformation is hardly open to manipulation. But as Malnes (1995) argues, the use of any type of force (sticks and carrots) associated with structural power does not fall within the proper definition of leadership.

⁴ We followed the process including the second INC meeting in 2011.

Governing Council (GC) / Global Ministerial Environmental Forum (GMEF) decided to initiate “a process to undertake a global assessment of mercury.” The UNEP Secretariat was asked to write a report and consider other heavy metals as well. The key focus was to be on health, environment, and precaution. At the twenty-second session in 2003, UNEP’s Global Mercury Assessment Report (UNEP, 2002) was discussed. There was sufficient evidence, the session found, for immediate national and international action, assistance, and capacity building by UNEP. The Executive Director was to consult other international organizations to avoid duplication. At the 2005 GC meeting, discussions started on what type of instrument should be elaborated to deal with the problem, a voluntary or legally binding approach. It was decided to further develop the UNEP Mercury Program. The Secretariat was also asked to report on supply, demand, and trade, and all key actors were urged to take “immediate action” to reduce risks associated with mercury. UNEP was again asked to produce additional information for the next GC meeting.

The twenty-fourth GC session in 2007 stepped-up its activity, but the issue of what instrument to use received most attention and there was considerable disagreement among delegates. The LBA approach had two options, a new “stand-alone” mercury treaty or creating a link to one or more of the conventions within the chemicals cluster. Other options were considered along the voluntary track. Agreement was reached to establish a two-track approach: a) UNEP was to prepare a report on mercury and strengthen its Mercury Partnership; and b) UNEP was to establish an “ad-hoc open-ended working group to review and assess measures to address the global issue of mercury” (OEWG). The question of approach was left open, and remained the main issue until the GC meeting in 2009.

4.2 The OEWG negotiations 2007-2008: Process and approach more than substance

At the first 2007 OEWG meeting, there were some 250 participants representing states, industry and environmental organizations. It was quite an informal process, with NGOs given the same right to speak as states. UNEP’s studies on options structured the agenda as well as the initial discussions (UNEP 2008a, b). Although the OEWG did not have a mandate to discuss different types of international instruments, this issue still became the focal point and “crept” into most agenda items. There was no clear-cut North–South dispute, and both hemispheres held various viewpoints. However, the South was uniform in their demand for assistance from the North to deal with supply, demand, and trade in mercury. The large majority of NGOs consistently argued in favor of LBA (*Earth Negotiations Bulletin* 2007a).

Within the LBA approach, utilizing the Stockholm Convention was a real alternative at this stage, not least because one form of mercury, methyl mercury, is an organic substance. Some, however, saw the Stockholm Convention as inappropriate because mercury is not singularly an organic pollutant—it would require different expertise and might detract attention from organic chemicals—and also because the US is not a party to the Stockholm Convention (Selin and Selin 2006). The Basel Convention was also raised as an alternative arena, but it would only be able to address mercury as a waste and could not cover mercury’s complete production line, where recycling is key.⁵ Others saw the voluntary approach of the Strategic Approach to International Chemicals Management (SAICM) as a way to secure rapid and additional action. Those arguing for LBA did *not* dismiss the positive contributions of voluntary partnerships; they were simply deemed inadequate. SAICM as a policy network was seen as inadequate, as it has no executive body or financial mechanism. A major deficiency of the first OEWG meeting was the absence of countries where the most of the mercury is. The parties asked the Secretariat to explore i.a. financial

⁵ Interviews with Matthias Kern, Basel Convention, Geneva, January 4, 2011, and Per Bakken, UNEP Chemicals, Geneva, January 5, 2011.

considerations of a free-standing convention and funding provided through the Global Environment Facility (*Earth Negotiations Bulletin* 2007b).

At their second meeting in October 2008, however, countries like India, Pakistan and Kirgizstan were all present. Considerable intercessional work had been done by UNEP to encourage their participation and a number of reports, discussing different solutions, were produced as a basis for continued discussions. The question of approach was still the dominant one. The group of countries in favor of the LBA increased and was reported to number some ninety states, but the idea of using the Stockholm Convention was still on the table. The voluntary approach group was shrinking and they disagreed among themselves on the type of voluntary approach. However, they were very vocal and active. Although the LBA option was attracting more support, advocates differed on how “deep” a treaty should be. There were also continuing North–South conflicts over issues related to financing and assistance. The OEWG discussed elements to be addressed by an international mercury framework, the type of framework to be used, and the capacity building, financial and technical support required to deliver on the elements (*Earth Negotiations Bulletin* 2008).

4.3 GC 2009 Meeting: The End Game—A Legally Binding Approach Adopted

The twenty-fifth session of the UNEP GC-25/GMEF took place in February 2009 in Nairobi, Kenya. It culminated in the historic decision to negotiate a legally binding international instrument on mercury, to be prepared by an intergovernmental negotiating committee (UNEP decision GC 25/5). UNEP decision GC 25/5 also requested the Executive Director to convene an OEWG meeting in 2009, and the intergovernmental negotiating committee (INC) to start its work in 2010. China, supported by India, preferred to defer any decision on establishing an INC to GC-27/GMEF, but both eventually agreed to establish an INC. The compromise was that the first INC should convene in 2010, as opposed to 2009, as preferred by the EU, US, the African Group and others (*Earth Negotiations Bulletin* 2009). The INC’s goal is to complete its work on a treaty text by GC-27/GMEF in 2013. China said the principles set out in UNEP decision GC 25/5 should guide negotiations and highlighted the importance of capacity building, technology transfer and a financial mechanism.⁶

The mandate directs UNEP to convene an Intergovernmental Negotiating Committee (INC) to begin work on a legally binding mercury treaty. The scope of the mandate covers all uses, trade, and potential sources of mercury emissions, including mercury in products and processes, and mercury-containing wastes. The mandate is limited in one key respect: it focuses only on mercury, notwithstanding attempts by the EU and some other countries to include a mechanism that would allow for the treaty to include other heavy metals of concern in the future. Unless the UNEP Governing Council amends the mandate, the treaty negotiating process will focus exclusively on mercury.

5 Explaining the Adoption of the LBA Approach

Traditionally, the negotiators were aligned in two camps. For years, the US, China, and India were wholly against a legally binding instrument, while Australia and Canada took a more reserved position. The EU, African countries, Norway, Switzerland, and some Latin American and Caribbean countries were strongly supportive of a convention. Below, we will analyze the interests and positions of key actors as a basis for the discussion of leadership.

⁶ UNEP decision GC 25/ 5, § 23 and § 27.

5.1 The Positions of Key Actors

The US had been one of the leading advocates of a voluntary approach since the issue surfaced at UNEP, consistent with the ideological stance of the Bush administration on international environmental issues (Chasek 2007). The US argued in terms of effectiveness: a voluntary approach was considered the best way of getting things done on the ground. In contrast, it was argued, LBA took more time to negotiate; it was more costly and less effective (U.S. Department of State 2007). The US practiced what it preached, being actively involved in many voluntary partnerships, including those led by UNEP. At OEWG 2, the US proposed its own partnership to deal with the issue, the Programmatic Organizational Structure on Mercury (POSM). The US also argued that UNEP needed better financing to strengthen its role in building voluntary partnerships. It is important to note, however, that domestic chemicals regulations in the US are quite tight and it is a considerable importer of mercury emissions, as it was claimed only 17 percent of mercury deposited in the US came from US or Canadian sources. China was the leading exporter of mercury emissions to the US (*High Beam Research* 2006). That is, the US had a strong interest in a more effective international regulation of this problem, but saw the voluntary approach as the most effective. Most of the traditional JUSCANZ countries like Australia, New Zealand, and Canada tended to side with the US, but Australia and Canada were generally less firm in their opposition to LBA and Japan joined the LBA supporters. Japan favored stronger binding measures on mercury, partly due to their experience from the Minamata incident, where several hundred Japanese citizens suffered from serious or lethal effects of mercury poisoning resulting from industrial pollution.

China has also been a key player since the start of negotiations in 2007. There is primary production of mercury in China, although more important is the extensive use of mercury in coal-based plastics production. Drawn by the building boom in China, these industries are increasing output and the single most important source of mercury pollution is coal mining and combustion in China.⁷ As a key contributor to the problem, China should be a very influential player. As China was a major net exporter of mercury, it would be hit hard by binding international regulations. It was also expected to oppose an LBA—and China lived up to these expectations. China stressed its continued right to develop and use mercury, and mercury emissions were unavoidable in this regard. China therefore opposed the creation of an LBA, and supported a voluntary approach. It joined the US in criticizing what they saw as the “activist” role of UNEP, producing reports in favor of LBA. China also criticized the targets and schedules in UNEP’s report for the first OEWG meeting. In this, China and the US were allies in their opposition to LBA, but China was generally less inclined to forceful action on the issue as it was perceived to be much more negatively affected by a strong regime than the US. China probably favored the voluntary approach because it would be more lenient.

Notwithstanding China’s basic position, internal policy on mercury pollution has developed concurrent with increased international attention. In the 11th and 12th five-year plans (FYP), China outlined its commitment to reduce output of mercury by 15% based on 2007 levels as well as energy efficiency targets of 20% (FYP, 2006-2010) and 16% (FYP, 2011-2015). By shutting down or modernizing small inefficient coal plants the efficiency targets could be achieved (Bergsager and Korppoo 2012). China also has the necessary technology available to limit the use of subcritical coal plants. As a result, China’s opposition to LBA may have softened somewhat over time in line with domestic policy development.

As noted, India and China are among the most important contributors to the problem. India was also strongly against LBA, stressing its right to develop economically and also arguing that it had successfully dealt with the problem at home largely through voluntary measures.⁸ These voluntary

⁷ Interview with Per Bakken, UNEP Chemicals, Geneva, January 5, 2011.

⁸ The national submissions to the INC1 discussions from India. UNEP (undated, c).

measures had already cut domestic emissions by 80 percent and further cuts were unlikely by either type of instrument. Independent sources found a reduction of from 321 metric tons in 2000 to 241 metric tons in 2004 in industry mercury emissions in India (Pirrone et al. 2010). India was not a major player before the 2009 GC meeting. In 2009, the Indian Central Pollution Control Board (CPCB) set 2012 to phase out mercury from two large domestic mercury sources (*Down To Earth* 2009a): chlor alkali plants and external “donated” e-waste (*Down To Earth* 2010). Both sources are hard to control, the costs of new technologies are considered high and industry wants increased time to comply (*Down To Earth* 2009a,b). As in China, India’s opposition to LBA may have softened over time due to internal policy development. A binding international treaty may actually be used by the CPCB to put pressure on reluctant domestic industries.

Other developing countries represent a mixed bag of interests and positions. Most African countries, being at the receiving end of the problem, favored an LBA.⁹ Unlike India and China, Brazil—another key country—also favored the LBA, reputedly in order to support its domestic efforts to come to grips with the mercury problem in gold mining. Many other developing countries had interests in the issue due to the problem of waste disposal, and some fifty developing countries were involved in artisanal and small-scale gold mining, contributing to atmospheric mercury emissions as well as exposing workers to considerable risk. Many developing nations, however, were more concerned with assistance in various forms, also linked to the issue of regulatory approach.

In addition to the green NGOs the most consistent LBA supporters in this process were the non-EU members Switzerland and Norway, both in terms of getting the issue onto the agenda as well as arguing its advantages (Selin and Selin 2006).¹⁰ It was thanks to their initiative that the issue was raised at UNEP in 2003, where Switzerland explicitly argued that an LBA approach was more effective than a voluntary approach (*Earth Negotiations Bulletin* 2007a). They were instrumental in advocating both the Global Mercury Assessments concluded in 2003 and the SAICM, concluded in 2006 (Rosendal 2007). Both states have been very active and vocal from the start, until the LBA approach was adopted in 2009. Although UNEP was by far the most important arena in this period, a Swiss initiative persuaded the Intergovernmental Forum on Chemical Safety to establish a working group to identify steps to assist developing countries in dealing with mercury and other heavy metals (*Earth Negotiations Bulletin* 2007a).

Another consistent LBA supporter is the EU (Selin and Selin 2006). The EU, with its twenty-seven member states, is a major actor. It has pushed for a global treaty not only because it reflects internal priorities, but also as it considers the LBA to be more effective than a voluntary approach. Before 2003, a comprehensive body of EU legislation was in place to control emissions and use of mercury, but policies differed across member states, with the Nordic countries pushing for a strengthening and harmonization of the regulations. The 2005 EU mercury strategy provided the basis for the EU during the international negotiations, and when the Strategy was adopted the EU “repeatedly requested UNEP GC to take a decision on the opening of negotiations on a global legally binding instrument on mercury.”(European Commission 2010, 3). In October 2006, the European Commission convened an International Mercury Conference in Brussels, providing important input to the UNEP-led process. At the first two OEWG meetings, the EU argued consistently in favor of a stand-alone, legally binding convention, although the EU was not against additional voluntary measures (*ENDS* 2008a, b). EU representatives also organized meetings with foreign governments to bolster support for a globally binding treaty (*ENDS* 2009).

⁹ Interviews with Henrik Eriksen and Atle Fretheim, Norwegian Ministry of the Environment, November 17, 2010.

¹⁰ Our interviewees agree on this point.

In short, the issue about what approach to use loomed large in this process, with strong and vocal viewpoints on both sides. Nonetheless, the US seemed to be the only major actor arguing that a voluntary approach would be more effective than an LBA, while most other opponents were more concerned about its constraining effect. Although the number of parties favoring LBA was gradually growing and opposition to LBA from key actors like China and India had softened in line with domestic policy development, the agreement reached at the 2009 meeting came as a great surprise to most observers.¹¹

5.2 Power, Interest and Knowledge-based Leadership

How do we account for the 2009 consensus on LBA? What made key actors like the US, India and China change their position? Applying the three different leadership perspectives presented in our analytical section, we discuss their ability to account for the 2009 consensus.

First, the idea that a hegemon forced other key actors into accepting an LBA for mercury is not very likely. More likely is the benign notion of unilateral action, where opponents find themselves compelled to modify their position in the face of the increasing political cost of isolation. The turnaround by the US may have left remaining opponents in this situation—and the fact that it was the US that turned first may have had real impact. As noted, this type of leadership may be coercive in effect rather than in intention and duration.

Second, we explore instrumental leadership where political entrepreneurs, potentially UNEP, the EU, Norway or Switzerland, create politically feasible solutions by e.g. issue linkages that may change opponents' perceptions of their interests. Third, opponents may have changed their position due to new information or persuasion of what constitutes the best solution. UNEP may have provided intellectual leadership as an actor producing information and as an arena for learning and interaction for participants, thus enhancing the climate for accepting scientific claims about the mercury problem and the best way to solve it. The very active support from key NGOs like IPEN and ZMG probably also contributed to legitimate the role played by UNEP. We start by examining the last option first.

5.3 Knowledge-based Leadership

It seems that the role of the UNEP Secretariat has been important in the gradually increased traction of the LBA. Not only has UNEP been the host and principal arena throughout the process, its Secretariat has been *the* key player in terms of diagnosing, framing and providing knowledge on how to deal with the issue.¹² While the states have participated in the yearly meetings for a week or so, UNEP Chemicals has worked more or less continuously with the issue through the making of numerous reports forming the basis for negotiations, and has also consulted widely with parties and other actors through intense intercessional work. Interestingly, it has also used think tanks like the Center for International Environmental Law (CIEL) for background information. A novel trait of the mercury negotiations is that some of the international NGOs chair the negotiations under the partnership process.¹³ The UNEP Secretariat is in principle independent of national interests and is supposed to be a neutral facilitator; it still satisfied the formal requirements to be an intellectual leader. Research has, however, shown that international environmental secretariats may play widely different roles (Andresen and Rosendal 2009; Biermann and Siebenhuner 2009). In this case, it

¹¹ Our interviewees agree on this point.

¹² This goes for UNEP Chemicals, not UNEP in general. It is pointed out that despite continued pressure from Switzerland and Norway, UNEP's Executive Director Achim Steiner did not believe in the viability of an LBA for mercury until the US revised its position. Interviews with Henrik Eriksen and Atle Fretheim, Norwegian Ministry of the Environment, November 17, 2010.

¹³ Interview with Per Bakken, UNEP Chemicals, Geneva, January 5, 2011.

seems the UNEP Secretariat was closer to the “activist” pole than would be expected of a neutral facilitator. This explains some of the complaints of the strongest proponents of the voluntary approach in the early phases, that UNEP reports were biased toward the legally binding approach (*Earth Negotiations Bulletin* 2007a). It could also be argued that it was in UNEP’s interest to argue the case for a new legally binding convention, strengthening its role and position compared to a voluntary approach while linking it up with the chemicals cluster.

We have no indisputable evidence that this gradual growth in support for the LBA was an outcome of the role of UNEP. However, we know that UNEP produced information on the advantages of LBAs and successfully encouraged wider participation in OEWG by persuading India, Pakistan and others to join in (see above). UNEP’s key functions as an arena and a leader probably made a difference in this regard, particularly regarding the parties with less of an opinion on the legal approach. The part played by UNEP certainly qualifies as intellectual—and perhaps instrumental leadership as well (see below).

Over time, parties have probably been persuaded that the LBA was a more appropriate and effective approach than voluntary action. That would lend some support to the knowledge-based perspective whereby positions and interests are not necessarily fixed, but amenable to influence and able to change in response to new information and learning through the process of negotiations.

5.4 Power-based Leadership

The US position changed when the Obama administration entered the White House in January 2009. The chief US delegate at the 2009 GC meeting said: “We’re prepared to help lead in developing a globally legally binding instrument” (Malti 2009, 1). According to a US NGO delegate: “The change is like night and day: Bush opposed any legal agreement on mercury and Obama in office in less than a month and is already supporting a global agreement” (*Ibid*). The US policy reversal indicates that the arguments in favor of the pro-voluntary approach were rhetorical, designed to showcase the ideological position of the Bush administration rather than expressing substantial effectiveness concerns. Alternatively, Obama may indeed have favored a less “effective” approach, though this is not very likely seen in the context of the arguments of the other key actors. In order to explain the US shift, we have to look at domestic US politics. Barack Obama had taken a personal interest in the issue for a long time and in 2007, as a Senator, he had introduced a Bill to the Senate to ban the sale, distribution, transfer, and export of elemental mercury (*High Beam Research* 2009b). A representative of the environmental movement Zero Mercury Working Group also said they had more discussions about mercury control in the past two weeks than they had had in the last eight years, and many of their viewpoints had been included in the new US position (*Ibid*). They also had talks with his transition team on the issue before Obama became President. This strengthens our interpretation: US support for a voluntary approach was rooted in ideology rather than concerns for effectiveness.

In any case, Washington’s volte-face and stated willingness to lead stretches our conception of leadership. The US is clearly an influential actor, also in this issue area, but it did not ‘set the pace’ by guiding the behavior of others over a sufficient period of time for leadership by unilateral action to apply. Nevertheless, its new policy was important and the power-based leadership perspective may well capture its consequences.

According to several NGOs, the most important reason for the recent consensus on the LBA at the GC was indeed the new US position. One source was “surprised how quickly events swung in favor of a global mercury phase out after eight years of disagreement on the issue in the Governing Council.” Another NGO representative said: “it is my sense that the Obama administration has made this international deal possible. This would not have happened if the US had not taken a

proactive position” (*Ibid*). The Director of the US Mercury Policy Project said: “After the US announcement, many other countries jumped on board, notably China and India, who had opposed a treaty up until this meeting” (*High Beam Research* 2009a, 1). The NGO community seems to have had a clear diagnosis: it was the US that made the change possible. Not surprisingly, the opinions of other key actors paint a rather more nuanced picture. Switzerland adds an interesting twist to the story. According to one Swiss source, the new US position was enough to change the position of countries like Australia and Canada, but not those of India and China (Poldenvaart 2010). The political cost to more environmentally “friendly” countries would be higher, it seems reasonable to assume, than to China and India if they could no longer hide behind the US. Such countries would also be most exposed to the “shaming and blaming” of critics. It is also a reasonable interpretation that China and India would be quite insensitive to the political cost of fronting opposition to an LBA alone.

Although the details may be somewhat disputed, there is no doubt that the US, representing power-based leadership or not, weighed heavily in tilting the process toward consensus on the LBA. Still, the question of what made the increasingly powerful emerging countries turn into supporters of the LBA remains only partially answered. We attempt a provisional answer by looking into what an LBA might mean from an interest-based perspective.

5.5 *Interest-based Leadership*

UNEP organized the pre-negotiation process cleverly by giving NGOs a significant role. Recall that the OEWG was a more informal process than traditional negotiations, giving more voice and opportunities to NGOs. All major environmental NGOs were in favor of the LBA approach and they helped legitimize support for LBA as the best or most effective approach. The pro-LBA view gained strength and legitimacy from the strong support of many poor African states. Other leading states and actors like the EU and Switzerland, in informal alliance with UNEP, also helped in this gradual move toward an LBA consensus using similar types of leadership, and generating an increasing number of followers. The EU had a conscious external mercury strategy, based on advanced EU legislation, and involving the organization of meetings with foreign governments to strengthen support for LBA. It is also claimed that Switzerland started a process of convincing the China and India delegations and travelled to China to discuss the issue. “The Swiss delegation seems to have established a basis for the shift in the Chinese position” (Poldenvaart 2010). The proponents of LBA also showed flexibility by de-linking other toxins from the mercury agenda. The plan was originally to start with mercury and then add other heavy metals along the way. This was strongly opposed by a number of the key actors.

Another important factor in changing perceptions of what was in the best interest of the parties was the link that was forged between LBA and possibilities for funding. During the 2009 meeting, talk about funding was much subdued due to the financial crisis; in fact, the world’s financial woes made acceptance of the LBA even more surprising. This would seem to suggest that a connection between LBA and a new funding mechanism was not a major factor in the initial decision to go for a mercury treaty in 2009. On the other hand, how to fund an ambitious approach to the mercury problem gained importance as the financial crisis wore on. Both prior to and in the aftermath of the LBA decision, a general sweetening of the pill was undertaken on behalf of developing countries, as agreement seemed to emerge among all the negotiating parties to set up a special financial mechanism for mercury.¹⁴

¹⁴ Interviews with Matthew Gubb, SAICM, Geneva, January 5, 2011, and Per Bakken, UNEP Chemicals, Geneva, January 5, 2011.

Since the first OEWG in 2007, the South has been united in calling for different types of assistance from the North to deal with various aspects of mercury. In their background document for the 2007 OEWG, UNEP introduced and discussed the idea of a fund similar to that of the Montreal Protocol with its Mandatory Multilateral Fund. An important point for developing countries was that mandatory financial mechanisms are only found in legally binding, not voluntary, arrangements (UNEP 2007). There was an increased tendency to view the voluntary SAICM as inadequate, as it had neither an executive body nor financial mechanisms. Some delegates were more receptive to the LBA than they had previously been (*Earth Negotiations Bulletin* 2007b). Most recent multilateral environmental agreements (with the Stockholm Convention as the latest example) have left it to an ever-more strained GEF to help poor countries deal with what is often perceived as environmental problems belonging to a Northern environmental agenda (Rosendal and Andresen 2011).

Donor countries are generally very reluctant to condone other international financial mechanisms than the GEF. However, the single focus of the mercury agreement may potentially be helpful in getting this concession from major donors. Moreover, major donors increasingly include some of the emerging developing countries themselves.¹⁵ From that perspective it is helpful that the fund and the treaty are restricted to mercury—as it would lead to more predictable funding.¹⁶ Linking the LBA to a funding mechanism may hence be a precondition of reaching an agreement on mercury.

6 Conclusions and Implications

The main conclusions is that a combination of different types of leadership, exercised in the institutional context of UNEP, helps explain the 2009 agreement to negotiate a legally binding mercury treaty. Many key states originally opposed this option in preference to a voluntary approach.

Knowledge-based intellectual leadership was exercised mainly by the UNEP Secretariat. UNEP provided new information on the seriousness and scope of the problem and the need to deal with it by a legally binding treaty. This was not sufficient to gain the support of a number of states with the US, India and China in the lead. Power-based leadership through unilateral action was, at least in consequence, provided by the US. When the US changed position after a change in domestic leadership, the political costs to some—other than India and China—states of a more environmentally “friendly” disposition increased, and they found themselves compelled to adapt to the new situation. Finally, interest-based instrumental leadership was provided by many of the proponents, with UNEP and among others the EU in the lead. Of particular importance here was the idea to link the LBA option to the prospects of funding and financial benefits for developing countries. The key to understanding why India and China eventually changed sides is in the combination of these factors: more knowledge, more isolation and more funding. The opposition to LBA from these states had also softened over time in line with domestic policy development to deal with mercury pollution.

The robustness and likelihood of an effective mercury agreement are affected by processes of regime formation. From a power-base perspective, for example, agreements induced by dominant states are vulnerable to decline in dominance. In our case, the change in US position was caused by a change in governmental leadership that came to favor a binding approach. A new change in leadership may possibly threaten this position and damage the robustness and effectiveness of a new treaty. The knowledge-based perspective highlights the importance of change in information about

¹⁵ Interview with Per Bakken, UNEP Chemicals, Geneva, January 5, 2011.

¹⁶ Interview with Matthew Gubb, SAICM, Geneva, January 5, 2011.

the problem and solutions. The mercury problem is unlikely to be considered less serious, but new information on the export-import dimension may affect actors' perceptions of their interests. The interest-based perspective focused particularly on the distribution of costs and benefits through issue linkages and funding. We have argued that the link between the LBA and prospects of funding for developing countries has been particularly important. High expectations may not be fulfilled by additional funding, which may seriously undermine the robustness of a new regime. In essence, significant funding and continued support from the US based on supportive science and information will increase the prospects of a robust and effective mercury treaty.

At the fourth meeting of the INC in June-July 2012 clear progress were made on issues like storage, wastes and contaminated sites and narrowing option on other issues such as reporting and information. However, on the most crucial controversial issues as compliance, finance and range of control measures for products and processes very limited progress was made due to the deep-seated conflicts between the North and the South (*Earth Negotiation Bulletin* 2012). There was agreement that a compliance mechanism should be established and that it should deal with all obligations under the eventual scope of the convention. However, the role of finance was decisive as developing countries said that their compliance with control measures must be contingent upon developing countries compliance with financial and technical assistance. Developed countries disagreed and disagreement also continued on the issue of using existing financial mechanisms (GEF) or a stand-alone financial mechanism. The future significance of the LBA approach is therefore highly uncertain as only one INC meeting remains to solve these knotty issues. If the North continues to argue for using the GEF, this may be unacceptable for countries like India and China. Future support from the US is also highly uncertain. First, it is highly unlikely that a new Republican Administration will support this approach (Rascoe and Gardener, 2011). Secondly, considering the poor track record of the US Senate in ratifying legally binding environmental agreements, even if President Obama continues, US ratification is not very likely.

List of interviewees

Henrik Eriksen and Atle Fretheim, Norwegian Ministry of the Environment, Oslo, November 17, 2010.

Matthias Kern, Basel Convention, Geneva, January 4, 2011.

Per Bakken, UNEP Chemicals, Geneva, January 5, 2011.

Matthew Gubb, SAICM, Geneva, January 5, 2011.

References

- Abbott, K. W., & Snidal, D. (2000). Hard and soft law in international governance. *International Organization*, 54(3), 421-456.
- Andresen, S., & Rosendal, G. K. (2009). The role of the United Nations Environment Programme in the coordination of multilateral environmental agreements. In F. Biermann, B. Siebenhüner & A. Schreyögg (Eds), *International organizations and global environmental governance* (pp. 133–150). London: Routledge.
- Bergsager, H., & Korppoo, A. (2012). *Administrative limitations of China's mitigation actions*. NOAK Report, November 2012.
- Biermann, F., & Siebenhüner, B. (Eds) (2009). *Managers of global change: The influence of environmental bureaucracies*. Cambridge, MA: MIT Press.
- Chasek, P. (2007). US policy in the UN environmental arena: Powerful laggard or constructive leader? *International Environmental Agreements: Politics, Law and Economics*, 7(4), 363–387.
- Down To Earth (2009a). Change is in the process. 28 February. <http://www.downtoearth.org.in/node/3035>. Accessed 29 September 2012.

- Down To Earth* (2009b). No one's controlling mercury. 31 January. <http://www.downtoearth.org.in/node/2913>. Accessed 29 September 2012.
- Down To Earth* (2010). Tricks of the e-waste trade. 31 May. <http://www.downtoearth.org.in/node/325>. Accessed 29 September 2012.
- Earth Negotiations Bulletin*. (2007a). First meeting of the *ad hoc* Open-ended Working Group to review and assess measures to address the global issue of mercury, 12–16 November 2007. 16(62), Monday 19 November.
- Earth Negotiations Bulletin*. (2007b). First meeting of the *ad hoc* Open-Ended Working Group on mercury, 12–16 November 2007, Bangkok, Thailand. Highlights for Friday, 16 November 2007, 16(61). www.iisd.ca/chemical/merc1/. Accessed 30 March 2012.
- Earth Negotiations Bulletin*. (2008). Second meeting of the *ad hoc* Open-ended Working Group to review and assess measures to address the global issue of mercury, 6–10 October 2008, 16(72), Monday 13 October.
- Earth Negotiations Bulletin*. (2009). Summary of the 25th Session of the UNEP Governing Council/Global Ministerial Environment Forum, 16–20 February, 2009, 16(78). www.iisd.ca/vol16/enb1678e.html. Accessed 30 March 2012.
- Earth Negotiations Bulletin*. (2012). Fourth meeting of the Intergovernmental Negotiating Committee to Prepare a Legally Binding Instrument on Mercury, 28(14), Sunday 1 July.
- ENDS*. (2008a). MEP to re-table tougher EU mercury export ban. 18 February.
- ENDS*. (2008b). EU reaches deal on mercury export ban. 15 May.
- ENDS*. (2009). Pressure for global binding mercury treaty rising. 6 February.
- European Commission. (2010). Communication from the Commission to the European Parliament and the Council on the review of the Community strategy concerning mercury. COM (2010) 723 Final. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0723:EN:NOT>. Accessed 29 June 2012.
- Falkner, R. (2005). American hegemony and the global environment. *International Studies Review*, 7(4), 585–598.
- Haas, P. M. (Ed.). (1992). Knowledge, power, and international policy coordination. Special issue of *International Organization*, 46(1), 1–390.
- Hasenclever, A., Mayer, P., & Rittberger, V. (1996). Interests, power, knowledge: The study of international regimes. *Mershon International Studies Review*, 40(2), 177–228.
- High Beam Research*. (2006). State Dept.: International efforts essential for cuts to mercury emissions. Article from: UD Fed. News Service. 7 July.
- High Beam Research*. (2009a). Obama's lead results in breakthrough mercury agreement, says NGOs. Article from: *Science Letter*. 3 March.
- High Beam Research*. (2009b). Obama's proactive role in mercury treaty: Nations which a few weeks ago were divided on how to deal with this major public health threat are now united on the need for a transition to a low-mercury world. Article from: *The Mercury* (South Africa). 26 February.
- Keohane, R. O. (1984). *After hegemony. Cooperation and discord in the world political economy*. Princeton, NJ: Princeton University Press.
- Malti, T. (2009). US calls for treaty on mercury reduction. *High Beam Research*, Associated Press. Article from AP Worldstream, 17 February.
- Malnes, R. (1995). Leader and 'entrepreneur' in international negotiations: A conceptual analysis. *European Journal of International Relations*, 1(1), 87–112.
- Miles, E. L., Underdal, A., Andresen, S., Wettstad, J., Skjærseth, J. B. & Carlin, E. M. (2002). *Environmental regime effectiveness: Confronting theory with evidence*. Cambridge, MA: MIT Press.
- Pirrone, N., Cinnirella, S., Feng, X., Finkelman, R. B., Friedli, H. R., Leaner, J., et al. (2010). Global mercury emissions to the atmosphere from anthropogenic and natural sources. *Atmos. Chem. Phys.*, 10, 5951–5964, doi: 10.5194/acp-10-5951-2010.
- Poldervaart, P. (2010). Mercury convention: Persistence makes a breakthrough possible. Swiss Federal Office for the Environment, International Affairs Division. Bern.
- Rascoe, A., & Gardener, T. (2011). The U.S. rolls out tough rules on pollution. *Reuters*, U.S. edition, December 2011.
- Rosendal, G. K. (2007). Norway in UN environmental policies: Ambitions and influence. *International Environmental Agreements: Politics, Law and Economics*, 7(4), 439–455.

- Rosendal, G. K., & Andresen, S. (2011). Institutional design for improved forest governance through REDD: Lessons from the Global Environment Facility. *Ecological Economics*, 7(11), 1908–1915.
- Selin, N. E., & Selin, H. (2006). Global politics of mercury pollution: The need for multi-scale governance. *RECIEL*, 15(3), 258–269.
- Skjærseth, J. B., Stokke, O. S., & Wetttestad, J. (2006). Soft law, hard law, and effective implementation of international environmental norms. *Global Environmental Politics*, 6(3), 104–120.
- Stokke, O. S. (2007). Qualitative comparative analysis, shaming, and international regime effectiveness. *Journal of Business Research*, 60(5), 501–511.
- Underdal, A. (1991). Solving collective problems: Notes on three models of leadership. In *Challenges of a Changing World*, Festschrift to Willy Østreng. Lysaker: The Fridtjof Nansen Institute.
- UNEP. (2012, a). Reducing risk from mercury. www.unep.org/hazardoussubstances/Mercury/tabid/434/Default.aspx. Accessed 28 March 2012.
- UNEP. (2012, b). UNEP global mercury partnership. <http://www.unep.org/hazardoussubstances/Mercury/GlobalMercuryPartnership/tabid/1253/language/en-US/Default.aspx>. Accessed 28 March 2012.
- UNEP. (Undated, c). Mercury negotiations INC2 submissions. www.unep.org/hazardoussubstances/Mercury/Negotiations/INC2/INC2Submission/tabid/4524/language/en-US/Default.aspx. Accessed 2 August 2011.
- UNEP. (2002) *Global Mercury Assessment*. Geneva: UNEP Chemicals. <http://www.chem.unep.ch/mercury/Report/Final%20report/final-assessment-report-25nov02.pdf>.
- UNEP. (2007). Study of options for global control of mercury. www.zeromercury.org/phocadownload/Developments_at_UNEP_level/Nairobi/studyglobaloptionsEN.pdf. Accessed 30 March 2012.
- UNEP. (2008a). Report on implementation options, including legal, procedural and logistical aspects. (DTIE)/Hg/OEWG.2/4.
- UNEP. (2008b). Report on financial considerations and possible funding modalities for a legally binding instrument or voluntary arrangements on mercury. (DTIE)/Hg/OEWG.2/3.
- UNEP. (2008c). The global atmospheric mercury assessment: Sources, emissions and transport. Geneva: UNEP, Chemical Branch, December 2008.
- U.S. Department of State. (2007). Response to questions contained in the December 12 2006 letter from Senators Lugar and Obama on mercury policy positions, 4p.
- Young, O. R. (1991). Political leadership and regime formation: On the development of institutions in international society. *International Organization*, 45(3), 281–308.
- Young, O. R. (1998). Creating regimes: Arctic accords and international governance. Ithaca, NY: Cornell University Press.