The Shadow of History in Inter-Organizational Cooperation for the Environment*

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Abstract

Why do international organizations (IOs) adopt different arrangements for cooperation? Drawing on the theory of institutional context and the rational theory of international design, I argue that a prior thick institution between IOs, which involves the adjustment of organizational mandates and/or activities, facilitates a decentralized arrangement for their current cooperation by fostering mutual expectations and reducing uncertainty. If the prior institution merely assumes direct combinations of resources and expertise, a centralized arrangement is needed to reduce uncertainty regarding the counterpart IO's cooperative motive. With archival analysis and extensive interviews with IO staff members, this argument is tested against two empirical cases of inter-organizational cooperation undertaken by the United Nations Environment Program under the Minamata Convention on Mercury. The in-depth analysis reveals how IOs cope with demands and obstacles for inter-organizational cooperation on the ground, which has been largely unexplored in the literature.

Keywords: international organization; Minamata Convention; institutional context; environmental treaty; institutional design; sustainable development

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Introduction

As global issues become progressively complex, there is increasing demand to bring together multiple actors with distinct policy expertise to solve them. Scholars and policymakers are paying attention to cooperation between international organizations (IOs). While preceding studies identify why IOs cooperate (Balas, 2011; Biermann, 2008; Gest & Grigorescu, 2010; Huigens, 2015), this study asks why the arrangements adopted by the IOs for cooperation *differ*. In this study, a cooperative arrangement refers to a *form* of institutionalized cooperation, which facilitates cooperation by moderating cooperation problems (Koremenos 2016, 10). It is equivalent to the institutional design (flexibility, centralization, scope, and control) for interstate cooperation (Koremenos, Lipson, & Snidal, 2001; Koremenos, 2016) and is distinct from cooperation types (e.g., coordination, collaboration, and orchestration) or inter-organizational cooperative activities (e.g., informational sharing, financing, and standard setting). Accordingly, this study rests on the premise that cooperative arrangements for IOs are similar to institutional design for cooperation between states. Biermann (2015, p. 45) stresses the importance of studying arrangements for inter-organizational cooperation and argues that cooperation failure can generate disastrous policy consequences ascribed to the IOs' lack of knowledge regarding *how* they should cooperate to achieve a shared governance goal. Improving our understanding of such cooperative arrangements advances the study of IOs and provides a useful policy prescription for global governance in which IOs play a major role.

Incorporating the perspective of institutional context (Jupille, Mattli, & Snidal, 2017; Copelovitch & Putnam, 2014), I argue that the choice of cooperative arrangements depends on the thickness of the prior institution under which the same pair of IOs cooperated. I define a thick institution as cooperation involving the adjustment of organizational mandates and/or activities and a thin institution as cooperation involving direct combinations of resources and

expertise (Clark, 2021). I regard the former as being able to foster mutual expectations, thus reducing uncertainty regarding counterpart IOs' cooperative motive for future cooperation, and the latter as not being able to do so. Combining this argument with the rational design theory, I expect that if the prior institution was thin, a centralized arrangement (where a centralized command structure serves as an administrative apparatus to manage cooperative activities hierarchically) is needed to reduce uncertainty regarding the counterpart IOs' cooperative motive. If the prior institution was thick, a decentralized arrangement (the absence of a centralized command structure leaves much leverage for IO personnel to manage cooperation) suffices their cooperation needs.

I analyze two cases of inter-organizational cooperation in relation to the Minamata Convention on Mercury (hereafter, the Minamata Convention). Under the Convention, the United Nations Environment Program (UNEP), which acts as a secretariat, cooperates with different IOs. I selected the Minamata Convention as a case study, where IOs extensively engage in inter-organizational technical cooperation to tackle the issue of mercury within the broader agenda on society, development, and health, influenced by the cross-cutting approach of UN sustainable development goals (SDGs). In two cases, the UNEP is involved in sets of dyadic cooperation with IOs to implement the Minamata Convention. One connects UNEP with the World Health Organization (WHO) and the ILO for health-related issues through a centralized arrangement. The other assigns the United Nations Development Programme (UNDP) and the United Nations Industrial Development Organization (UNIDO) to the artisanal small gold mining (ASGM) issue by connecting the respective organizations with UNEP through a decentralized arrangement.

I focus on whether each pair of IOs had a prior institution before adopting the Minamata Convention in 2013 and, if so, how thick the prior institution was in helping IOs foster mutual trust. Since cooperation under the Minamata Convention was initiated upon its

adoption, a prior institution for inter-organizational cooperation *outside* the Minamata Convention could influence their cooperative arrangements. Uji (2019) found that experiences implementing chemicals treaties, including the Stockholm and Rotterdam treaties, influenced the institutional design for the Minamata Convention.[1] Therefore, it is likely that cooperation between IOs on one environmental issue can influence cooperation on another.

Actual organizational activities and decision-making undertaken by IOs for inter-organizational cooperation have been largely unexplored in the literature mainly because of low data accessibility. In this regard, my in-depth investigation based on archival analysis and extensive interviews with IO staff members reveals how IOs cope with demands and obstacles for inter-organizational cooperation on the ground. My findings provide important policy implications for how IOs could devise effective cross-cutting cooperation in the age of SDGs.

Literature Review

This research builds on three strands of literature. First, previous studies have directly approached cooperation between IOs, primarily drawing on the sociology of organizations. This reflects an increasing demand for bringing together different forms of expertise to tackle increasingly complex global problems (Biermann, 2008, p. 45). Existent studies primarily question why IOs cooperate, examining such factors as IOs' interests, resources, and shared ideas for anti-corruption, peace operations, security, and economic issues (Balas, 2011; Biermann, 2008; Gest & Grigorescu, 2010; Huigens, 2015). In his analysis of cooperation between the G8 countries and the European Union, Huigens (2015, p. 470) found that collaborative practices can be locked into organizational cultures as a result of socialization, and IOs learn that the benefit of maintaining cooperation outweighs the cost of switching it.

The second strand of literature concerns orchestration, a soft and indirect mode of governance, in which a weak IO enlists other actors—including states, private actors, and IOs—as intermediaries to achieve a governance goal that cannot be achieved in isolation due to a lack of capacity (Abbott, Genschel, Snidal, & Zangl, 2015). Orchestration is soft, as an IO lacks firm control over intermediaries, and direct because it approaches the governance target only through intermediaries. When the intermediaries enlisted to facilitate orchestration are also IOs (e.g., Graham & Thompson, 2015; Hanriedar, 2015), orchestration characterizes a specific type of cooperation between IOs. Indeed, as my case study illustrates, UNEP's cooperation with IOs under the Minamata Convention can be regarded as a case of orchestration. Literature is largely silent about the variations of a soft means (different cooperative arrangements, in this paper's term) of enlisting them in orchestration. Accordingly, this paper argues that IOs can utilize different soft means for orchestration, depending on the intermediary IO.

Third, this study builds on the growing international relations (IR) literature on institutional interactions and regime complexity (Jönsson, 2017). It addresses the relationships among multiple institutions that co-govern a specific issue (Clark, 2021; Gehring & Faude, 2014; Johnson & Urpelainen, 2012; Pratt, 2018). These studies often analyze institutional overlapping, with several different institutions having similar or even conflicting tasks in a given issue, and discuss it in relation to the role of member states. That is, the complexes of institutions provide states with opportunities for forum shopping or regime shifting, which could undermine the overall effectiveness of governance (Morse & Keohane, 2014; Orsini, Morin, & Young, 2013; Raustiala, 2012). Increasingly, studies are exploring how political actors (states, IOs, and private actors) seek to set inter-institutional coordination and collaboration to correct overlaps, and how this process interacts with states' interests (Clark, 2021; Eilstrup-Sangiovanni, 2022; Eilstrup-Sangiovanni & Westerwinter,

2022; Gehring & Faude, 2013, 2014; Henning, 2017; Pratt, 2018). Thus, inter-institutional coordination is related to the cooperation between IOs, given that both entail a similar coordination process.

Institutional Context and Rational Design Theory of Cooperation Between IOs

The first strand of the literature on cooperation between IOs, discussed above, reveals that the major issue IOs face in their cooperation is the *trade-off* between autonomy and the functional demand associated with the pursuit of inter-organizational cooperation (Biermann, 2008, p. 173; Biermann, 2015, p. 47; Franke, 2017; Van de Ven, 1976, pp. 28-30). Whereas inter-organizational cooperation is beneficial for an IO, it also leads the IO to deviate from its original mandate and reduces its autonomy, which hinders cooperation between IOs. Drawing on the rational design theory for interstate cooperation and institutional context, I explain why IOs devise different cooperative arrangements to overcome such a trade-off. The current study highlights the role of the prior institution in fostering trust between IOs.

This theory targets technical cooperation in depoliticized issue areas in low politics, for which IOs possess greater leeway from member states (Johnson, 2014). Whereas states seek to monopolize their authority in high politics, such as defense, crime, or governance (Johnson, 2014, p. 45), they provide more roles for IOs concerning technical advice or capacity-building in such issue areas as environment, development, education, and health. Additionally, member states that lack capacities are more likely to rely on IOs for technical and scientific matters, as IOs with expertise are capable of dealing with them (e.g., Johnson & Urpelainen, 2012). Therefore, IOs act as autonomous actors for such technical cooperation in depoliticized issues (Clark, 2021; Clark & Dolan, 2021; Johnson, 2014), gaining more leverage from member states' control than traditionally assumed (Copelovitch, 2010;

Mearsheimer, 1995; Stone, 2011). This theory envisions that, being led by high-level officials, IOs design their cooperative arrangements as homogeneous actors, as state representatives decide the institutional design for the international cooperation. Thus, this theory rests on the premise that IOs have leverage in designing arrangements for inter-organizational cooperation, whereas member states do not proactively engage in the design process, providing only ex-post consent at best.

An underlying problem of cooperation between IOs is similar to that of interstate cooperation. In general, a major obstacle to interstate cooperation is enforcement, in which mutual distrust derived from the existence of incentives to defect leads to cooperation failure. Uncertainty about the counterpart's cooperative behavior inhibits a state from taking a cooperative action, given the trade-off between the autonomy derived from sovereignty and the functional demand of cooperation (Axelrod, 1984; Koremenos, 2016, p. 37). States are often hesitant to cooperate because cooperation can counteract their national interests, depending on the form and scope of cooperation.

IOs face the same dilemma in their cooperation. States identify a certain benefit of starting cooperation; consequently, this paper assumes that IOs consider certain benefits from cooperation. Thus, this theory can be applied to IOs for which the coordination of overlapping tasks is beneficial, but not to those that potentially gain nothing from the cooperation (e.g., issue areas of their activities are fully independent). Despite its benefits, cooperation over such a cross-cutting issue requires IOs' additional financial and human resources, as well as some deviation from their original mandates. The costs are more significant, as cooperation requires additional activities and the adjustment of mandates/activities to achieve the shared goal. This generates a trade-off between autonomy costs and cooperation demand and is the source of uncertainty regarding counterpart IOs' cooperative motives.[2] IOs are unsure about how their counterparts assess such a trade-off and

whether they are more likely to cooperate or defect. More precisely, IOs lack information on how many financial and human resources their counterparts can expend for the cooperation and on the scope and depth of cooperation amenable for them. IOs may overestimate their counterparts' autonomy costs and constraints pertaining to cooperation under high uncertainty; mutual distrust is likely to lead to a failure of cooperation. In this case, IOs cannot achieve the governance goal, since neither achieves it on its own. Even if noncooperation is suboptimal for IOs, they choose defection when they believe that cooperation entails high costs.

How, then, is the degree of uncertainty related to cooperative arrangements? Rational institutionalism suggests that international cooperative arrangements are designed to remove obstacles to cooperation (Koremenos, 2016; Koremenos et al., 2001; Martin, 1992; Snidal, 1985). Accordingly, rational institutionalism suggests that IOs need to establish a centralized cooperative arrangement to overcome the enforcement problem if their counterpart's behavior is uncertain, whereas a decentralized arrangement suffices to deal with low uncertainty (Koremenos, 2016, p. 51; Koremenos et al., 2001, p. 790).

In this paper, centralized and decentralized arrangements are distinguished based on whether cooperation is taken through a centralized command structure; that is, an administrative apparatus that hierarchically manages collective activities for the cooperation between IOs (Abbott & Snidal, 1998; Koremenos, 2016, p. 53). In a centralized arrangement, inter-organizational cooperative activities are facilitated and managed based on a consolidated authority. A centralized command structure, supported by administrative directives and IOs' resolutions, effectively allocates tasks by a top-down mechanism and coordinates operational efforts to ensure they do not duplicate or work against each other (Koremenos, 2016, p. 53). This works as a command as to how much IOs should provide resources and adjust organizational activities for their cooperation. Drawing on Coase's

(1937) transaction costs theory, centralization, rather than decentralization, is chosen when transaction costs of direct contracting are high (Abbott & Snidel, 1998, pp. 9). Thus, especially for IOs characterized by mutual distrust, a centralized arrangement can make cooperation more effective and foreseeable by reducing the transaction costs derived from uncertainty. Conversely, a decentralized arrangement is characterized by a bottom-up mechanism with dispersed authority, leaving considerable leverage for IO personnel to manage cooperative activities. When uncertainty regarding counterpart IO's behavior is low, IOs can trust the counterparts' cooperative motives and predict how many financial and human resources they are willing to provide, and how much they can adjust their organizational activities for the cooperation.

The degree of uncertainty faced by IOs may vary with IO pairings, as it is influenced by their records for cooperation. While rational institutionalism does not incorporate such a historical perspective, the influence of a prior institution on a present institution is increasingly discussed in a growing literature, which bridges historical institutionalism with rational institutionalism (Abbott & Faude, 2022; Eilstrup-Sangiovanni & Westerwinter, 2022; Jupille et al., 2013, 2017; Reinsberg & Westerwinter, 2021). Cooperation problems and institutional status quo interact to drive institutional choice today (Fioretos, 2017). Likewise, institutional context or prior institutional agreement between IOs is likely to affect the severity of present uncertainty, as in the case of interstate cooperation (Copelovitch & Putnam, 2014, p. 474). This is because cooperation within a prior institution enhances the credibility of a counterpart's commitment to cooperation and thus increases the predictability of its behavior by lowering the costs of different courses of action (Copelovitch & Putnam, 2014, pp. 472-473). This could happen in different ways. During prior cooperation, organizational culture and bureaucratic rules become similar, which induces socialization (e.g., Hooghe, 2005). Another explanation is that communication between leading

stakeholders ensures convergence in the activities of IOs (e.g., Clark, 2021). Alternatively, interpersonal relationships between IOs personnel facilitate a deep mutual understanding of the counterpart's organizational culture and procedures, as they work together on shared tasks (Biermann, 2017). Thus, prior cooperation is when IOs interact and cooperate under a shared institution for a governance goal. This does not necessarily require IOs to deliver every operational activity or service together on the ground. Accordingly, prior cooperation does not consider organizational activities independently taken in different institutions, even if the activities are for the same governance goal. Thus, uncertainty surrounding new cooperation is likely to diminish if IOs build mutual trust and shared expectations through interactions within a prior institution.

However, prior cooperation may not always foster trust or reduce uncertainty. Clark (2021) distinguishes between two types of cooperation—coordination and pooling—by the degree of restrictions/costs it imposes on IOs. Coordination is costlier than pooling, as it entails "adjustment of organizational mandates and/or activities"; pooling merely involves "direct combinations of resources and expertise for IOs to pursue mandates in tandem" (Clark, 2021, p. 1135). Based on his conceptualization, I regard the prior institution of the former type as thick and the latter as thin, viewing that the required degree of adjustment of organizational mandates and/or activities for inter-organizational cooperation determines the thickness of interactions between IOs. Under thick institutions, IOs can mutually learn about their counterparts' cooperative intent concerning cooperation costs for a given governance goal by adjusting their mandates and activities. Instead, a thin institution, which does not entail cooperation costs or adjustment of mandates or activities, does not have a role in clarifying IOs' cooperative intent.

Therefore, if a thick prior institution reduces uncertainty and mitigates an enforcement problem, a decentralized arrangement, taking advantage of already fostered mutual

expectations, is a rational choice for the actual cooperation between IOs. Conversely, if IOs behaved under a thin institution and failed to ameliorate uncertainty, they need to establish a centralized arrangement for the current cooperation. Accordingly, I posit that if the prior institution of a given pair of IOs is thick (thin), IOs adopt a decentralized (centralized) arrangement for their cooperation on a cross-cutting issue. This theory assumes that cooperation, at present, involves the adjustment of mandates/activities. If both current and prior cooperation involves only direct combinations of resources and expertise (thin institution), a decentralized arrangement for the current cooperation would suffice.

My view regarding the association between prior and current cooperation is distinct from, but closely related to, the discussion on intra-organizational relationships. Nested institutions highlight that broader and narrower institutions are nested in a hierarchical fashion (Aggarwal, 1998). Organizational progeny depicts IOs as creating new IOs within the same organizational family (e.g., the United Nations system) (Johnson, 2014). Unlike these studies, this paper does not assume that prior and current institutions are structurally linked. Nonetheless, my argument can empirically converge with their perspective. A pair of IOs under the same umbrella are more likely to have prior cooperation, which facilitates present cooperation, bringing my argument closer to organizational progeny. Additionally, if present cooperation is influenced by prior cooperation and also builds on it institutionally, this is a case of nested institution.

Method

I analyze two distinct cases of UNEP's dyadic cooperation with different IOs associated with the Minamata Convention. I selected the Convention as a typical case to illustrate my theory because, influenced by the cross-cutting approach of UN SDGs, the IOs extensively engage

in inter-organizational technical cooperation to tackle the issue of mercury within their broader agenda on society, health, and development. Given that an IO has expertise in a single issue, such a cross-cutting governance goal requires different areas of expertise to convene through cooperation. In both cases, UNEP, as the secretariat of the Minamata Convention, pursued inter-organizational cooperation with other IOs to promote the implementation of the Minamata Convention. The first is UNEP's cooperation with the WHO and ILO on health-related issues, while the second is its cooperation with UNIDO and UNDP on the issue of ASGM under the Global Opportunities for Long-term Development in Artisanal and Small-Scale Mining Program (GEF GOLD). The cooperation covers collaboration at a working level for specific projects and initiatives to implement the same environmental convention.[3] This requires IOs to adjust their mandates and existing activities, thus posing the cooperation problem mentioned above.

UNEP's cooperation with different IOs under the Convention can be regarded as a case of orchestration, considering the programme's relatively leading role in cooperation. As the orchestration theory suggests, this case illustrates that an orchestrator UNEP, which lacks control over other IOs, relies on soft means (IOs' voluntary collaboration) to enlist them in tackling the cross-cutting mercury issue at the country level to fulfill its ultimate goal of implementing the Minamata Convention. Therefore, this study adds another empirical case of orchestration in an environmental domain (Graham & Thompson, 2015; Van der Lugt & Dingwerth, 2015).

The two cases differ in their cooperative arrangements. The former is characterized by a centralized arrangement, while the latter uses a decentralized arrangement. Thus, a comparison between the two enabled me to evaluate why different arrangements were employed to implement the Minamata Convention by controlling for factors that are unique

to the issue of mercury and might influence the arrangements. Based on the theoretical argument introduced above, my analysis aims to assess how the different prior institutions of the respective pairs of IOs induced different arrangements for the present cooperation. As described in the theory section, I measure centralized/decentralized cooperative arrangements based on whether the cooperation relies on a centralized command structure or IOs' personnel. Thick/thin prior institutions are identified based on whether the cooperation entails adjustments of organizational mandates and/or activities or merely involves direct combinations of resources and expertise to pursue mandates in tandem. Since the process of reducing uncertainty is empirically difficult to detect, I investigate whether and how prior cooperation fostered IOs' mutual expectations for environmental cooperation by clarifying their counterpart's cooperative intent in relation to their autonomy constraints.

I conducted both archival research and interviews with senior officials who are deeply involved in the respective cooperation between IOs. The documentary sources that I utilized include memoranda of joint conferences, resolutions, and reports on collaborative projects issued by the respective IOs. Semi-structured interviews were conducted to supplement the lack of information in archival documents because, while documentary sources helped reveal the formal aspect of cooperation between IOs, they were silent about more substantive aspects of cooperation. I conducted interviews with the officials of WHO and ILO about UNEP's cooperation with their organizations. I also interviewed the officials of UNEP, who have been deeply involved in GEF GOLD and previous GEF projects, about UNEP's cooperation with UNDP and UNIDO. Finally, I interviewed the officials of the Secretariat for the Minamata Convention regarding cooperation between the two sets of pairs of IOs. The interviews were conducted between January 2020 and May 2022 and were each about one hour long. Prior to the interview, I sent the participants a document with a set of questions. The questions included "Is your organization's cooperation with the Minamata Secretariat

facilitated or positively influenced by experiences in its previous cooperation with the UNEP if any?" and "It is often said that under GEF projects, implementation agencies compete against each other for financial resources and autonomy, rather than cooperate. Do you observe similar competition among the agencies (such as UNDP, UNEP, and UNIDO) under GEF GOLD? If not, why do you think this is so?" During the interviews, in response to the interviewees' answers to the written questions, I asked them follow-up questions, through which they elaborated upon their answers.

In the next section, I first present the details of the respective cooperative arrangements established under the Minamata Convention. Then, I assess the prior institutions established for cooperation for the respective pairs of IOs and discuss whether and how they influenced the present arrangements.

Centralized/Decentralized Arrangements

CENTRALIZED ARRANGEMENTS FOR UNEP'S COOPERATION WITH WHO AND ILO

A centralized cooperative arrangement for UNEP's cooperation with the WHO and ILO rests on Article 16 of the Minamata Convention, which is a provision on human health. The article stipulates in (a) and (b) of its second clause that the Conference of the Parties (COP), in considering health-related issues or activities, should consult, collaborate, promote cooperation, and exchange information with the WHO, ILO, and other relevant IOs.[4] The clauses on health within the Minamata Convention are remarkable in comparison with other chemical treaties, which do not have specific clauses on health, despite mentioning human health in their preambles.

Cooperation with the WHO and ILO on health issues was regarded as being necessary due to the cross-cutting nature of the mercury issue. This is largely influenced by the global

agenda for SDGs, which was agreed upon in 2015 by the UN General Assembly (personal interview with Dr. Shunichi Honda, senior official of UNEP IETC). The SDGs seek to reframe the environmental agenda as an integral part of the broader issue of sustainable development; they stress the cross-cutting nature of environmental problems within social and economic issues. According to this framework, countries need to address underlying social and economic issues to truly solve environmental problems. Thus, the emphasis on health under the Minamata Convention indicates that the mercury problem is regarded explicitly as a cross-cutting issue on which multiple IOs with environment and health expertise need to collaborate.

The centralized arrangement that connects the WHO and ILO with the UNEP consists of the following organizational resolutions, in addition to the legal stipulation. In response to Article 16(2) of the Minamata Convention, both the WHO and ILO adopted intra-organizational resolutions at the governing body level, through which the respective IOs' member countries formally approved the respective IOs' cooperation with UNEP to implement the Minamata Convention. While the WHO contributed to the negotiations for the Minamata Convention, its governing body, the World Health Assembly (WHA), formally approved cooperation with UNEP for the Minamata Convention by issuing Item 3(3) of resolution WHA67.11. This requests the Director-General "to cooperate closely with the Minamata Convention Intergovernmental Negotiating Committee, the COP and other IOs and bodies, mainly the UNEP, to fully support the implementation of the health-related aspects of the Minamata Convention on Mercury and to provide information to the Committee and COP on the progress made in this regard" (WHO, 2014). The resolution states that health-related tasks include ASGM, dental amalgam, mercury-containing thermometers and sphygmomanometers, mercury and methyl mercury in fish, biomonitoring, and state-of-the-science review of mercury biomarkers in humans. The WHA is attended by delegates from

all WHO member states and focuses on a specific health agenda prepared by the Executive Board. Given this central role of the WHA, resolution WHA67.11, coupled with the provision of the Minamata Convention on human health, served as an administrative apparatus that hierarchically manages cooperation between IOs.

The ILO's governing body also approved the cooperation with the UNEP under a resolution. Throughout the negotiations for the Minamata Convention, the ILO participated only in the first INC session. However, after the Minamata Convention was adopted, the interim secretariat of the Minamata Convention consulted the various offices of the ILO, including the Labor Administration, Labor Inspection and Occupational Safety and Health Branch (LABADMIN/OSH), to renew collaboration following Article 16(2) of the Minamata Convention. The tasks subject to cooperation include the protection of workers from unacceptable forms of work, formalization of the informal economy, strengthening workplace compliance through labor inspection, and technical support for ASGM. By accepting this request from the secretariat, the ILO renewed collaboration with the UNEP (ILO, 2014). Further, according to document GB.322/INS/13/3, the governing body requested that the above offices maintain collaboration with the interim secretariat of the Minamata Convention for the protection of workers' health from exposure to mercury (ILO, 2014).[5]

Importantly, these resolutions enabled IOs to draw funding for their cooperation officially. The series of arrangements allowed the ILO to utilize a part of its budget allocated for chemical-related activities (personal interview with Dr. Halshka Graczyk, Technical Specialist on Occupational Safety and Health (OSH), International Labour Organization (ILO)), whereas it enabled the WHO to spend pooled voluntary contributions from member states as well as specified voluntary contributions from individual donors (personal interview with Ms. Carolyn Vickers, Head of WHO Chemical Safety and Health Unit World).

Subsequently, the respective IOs also designated contact persons at the executive level to be in charge of communication between UNEP, WHO, and ILO. Thus, UNEP's cooperation with WHO and ILO is characterized by a centralized arrangement with a consolidated authority. A command structure based on the legal stipulation of the Minamata Convention and organizational resolutions effectively allocates tasks and coordinates operational efforts, including funding and contact persons, between IOs.

Decentralized Arrangements for UNEP's Cooperation with UNDP and UNIDO

The second case of inter-organizational cooperation on mercury focuses on UNEP's cooperation with the UNDP and UNIDO under the GEF GOLD program, which was launched around the adoption of the Minamata Convention. GEF GOLD aims to improve the environmental production practices and work environment of ASGM. ASGM produces 20% of the world's gold each year and provides livelihoods to around ten to twenty million miners worldwide. Because of limited economic opportunities or lack of awareness, many small-scale mining operations use the highly toxic chemical mercury to extract gold, making ASGM the world's largest source of mercury pollution. Against this background, GEF GOLD launched targeted projects to establish a pathway to cleaner and more efficient ASGM practices from mine to market. GEF GOLD, as a $180 million-funded program ($45 million GEF grant and $135 million co-financing), seeks to close the financing gap, support formalization, raise awareness, and connect mining communities with mercury-free technology and formal markets. So far, GEF GOLD has launched projects in nine countries: Burkina Faso, Colombia, Ecuador, Guyana, Indonesia, Kenya, Mongolia, Peru, and the Philippines.

As in the case of WHO and ILO, inter-organizational cooperation was also necessary under GEF GOLD because of the cross-cutting nature of ASGM. In both the Minamata Convention and the GEF GOLD program, ASGM is not regarded as an environmental or health problem to be stamped out but rather as a complex interplay of social, economic, technological, environmental, and health factors that can vary considerably across local and national contexts (WHO, 2016, p. 4). The discussion regarding SDGs that led to the health clause in the Minamata Convention also influenced the framing of ASGM. In particular, GEF GOLD regards ASGM as an important economic and social development activity offering an opportunity for poverty alleviation and inclusive mining development.[6] This is why GEF GOLD involves multiple IOs with different types of expertise to improve environmental safety for ASGM. GEF GOLD is funded by GEF and led by UNEP as an implementing agency. Projects are implemented via UNEP's partnership with the UNDP, UNIDO, and Conservation International per their comparative advantage.[7] As Conservation International is an NGO, cooperation between IOs under GEF GOLD pertains to UNEP's cooperation with UNDP and UNIDO. For example, UNDP is the main executing agency in Colombia, Indonesia, Kenya, and Peru, while UNIDO plays that part in Burkina Faso, Mongolia, and the Philippines.

UNEP's cooperation with UNDP and UNIDO under the GEF GOLD framework is not subject to a legal stipulation of the Minamata Convention. Items 6 and 7 in Article 13 on financial resources and mechanisms only stipulate that the GEF Trust Fund shall provide financial resources to implement the Minamata Convention (UNEP, 2019), leaving cooperation between the three agencies entirely untouched. Rather, the development of GEF GOLD projects is largely led by IOs personnel. A UNEP official states that UNEP officials discuss the possibility of a project launch with officials from other IOs during the INC and COP conferences for the Minamata Convention (personal interview with Dr. Shunichi

Honda). This type of bottom-up mechanism based on dispersed authority provides IO personnel with considerable leeway to manage cooperation. It can be regarded as a decentralized arrangement. As detailed in the last part of the next section, inter-organizational cooperation under GEF GOLD builds on a long-standing working relationship between IOs and their staff members.

Prior Institutions

My interviews revealed that both groups of IOs had had earlier opportunities for cooperation. The WHO and ILO previously cooperated with UNEP on other chemical issues well before the Minamata Convention was adopted. Such cooperation mainly occurred through the Inter-Organization Program for the Sound Management of Chemicals (IOMC) (personal interviews with Dr. Halshka Graczyk and Ms. Carolyn Vickers). Regarding UNEP's previous cooperation with UNDP and UNIDO, they have extensively collaborated as Agencies in GEF projects related to other international environmental treaties. Although both groups of IOs have prior institutions for their cooperation through either IOMC or GEF, the prior institution of the GEF, which involved adjustments of mandates and activities, was thicker.

PRIOR THIN INSTITUTION OF THE IOMC

The IOMC was established in 1995 by the UN Conference on Environment and Development of 1992, based on Chapter 19 of Agenda 21, as an international coordinating body to clean up toxic chemicals. The IOMC has convened nine IOs, including UNEP, WHO, and ILO, to promote chemical safety.[8] The IOMC aims to facilitate international cooperation in chemical safety and increase the effectiveness of international chemical safety programs separately pursued by the organizations to achieve the goal of sound management

of chemicals for human health and the environment. UNEP broadly cooperated with the WHO and ILO on chemical issues in this process. However, the IOMC targeted the overall coordination between IOs, especially between high-level officials, focusing on information sharing and coordination of existing activities. Each collaborative effort proceeds *at arm's length*. Unlike GEF (as discussed later), it does not aim for collaboration at a working level on specific projects and initiatives (personal interview with Ms. Carolyn Vickers). Therefore, an external financing scheme to support projects on the ground was not necessary. In IOMC, IOs are merely expected to incorporate a chemical safety perspective into their *existing* organizational activities rather than commit to entirely new cooperative activities. As it does not require them to compromise their autonomy or impose significant financial burdens, enforcement problems were nonexistent. This type of cooperation between IOs, which does not demand adjustments of organizational mandates and activities, can be regarded as a thin institution. Because of the absence of mutual adjustment of mandates and activities, IOs did not have a chance to foster mutual expectations through their interaction under IOMC.

Instead, their cooperation under the Minamata Convention, which also targets project-level collaboration, is more extensive than in the previous IOMC and entails a more significant enforcement problem (personal interview with Ms. Carolyn Vickers). This is characterized by a thick institution, involving mutual adjustments of mandates and activities. In their cooperation with other IOs, they must finance joint projects from their organizational budgets, and cooperation under the Minamata Convention is not an exception. This means that their involvement in joint projects leads to increased operational costs related to additional organizational activities. High costs of cooperation may provide IOs with an incentive for defection. This makes a counterpart's motive for cooperation increasingly uncertain, and an enforcement problem becomes severe. IOMC's prior institution was thin and not designed to reduce such uncertainty. A centralized arrangement was necessary under

the Minamata Convention to effectively tackle the enforcement problem. An official of the ILO said a centralized arrangement of a legal stipulation followed by resolutions was helpful for cooperation between these IOs, given the inherent difficulty of inter-organizational cooperation. According to the official, cooperation under the centralized arrangement is more credible and legitimate (personal interview with Dr. Halshka Graczyk).

PRIOR THICK INSTITUTION OF GEF

Like GEF GOLD, inter-organizational cooperation in prior GEF projects was aimed at collaboration at a working level to implement the environmental conventions. Thus, it is characterized by thick institution, which involves adjusting IOs' mandates and existing activities. Two elements under the GEF, which helped foster mutual expectation between IOs, facilitated such adjustments: (1) the GEF instrument (a contract for the establishment of the GEF) and the GEF's nature as a funding mechanism and (2) institutional realignment in 2008.

GEF Instrument and Funding Mechanism

Since its establishment in 1991, GEF has served as a financial mechanism for environmental conventions. It currently supports the Convention on Biological Diversity, the UN Framework Convention on Climate Change, the Stockholm Convention on Persistent Organic Pollutants, and the UN Convention to Combat Desertification. The Minamata Convention was added to the list as the latest convention in 2013.

Trust-building between IOs under the GEF was made possible in two ways. First, cooperation among IOs as Agencies, including UNEP, UNDP, and UNIDO, has been posited as the core of GEF projects. The basic premise of GEF's strategies is that "the Agencies *work together* on GEF projects, pooling expertise." As a funding mechanism and not an

organizational entity, GEF does not have the organizational power to enlist Agencies with force (Graham & Thompson, 2015, pp. 117-119). Rather, the rationality of cooperation among Agencies is rooted in the GEF instrument, a contract for the GEF's establishment. Article 22 of the instrument stipulates cooperation among Agencies in GEF projects, and Annex D elaborates on the principles of cooperation among the Agencies. In this way, the GEF instrument provided a solid foundation for cooperation between IOs. Second, the fact that the GEF serves as a funding mechanism helped Agencies by reducing cooperation costs. GEF-led projects obtain funds from the Facility without financial cost to the participating Agencies (personal interview with Mr. Eisaku Toda, Senior Programme Officer of the Secretariat of the Minamata Convention on Mercury). Thus, in contrast to general cooperation between IOs, the Agencies are more willing to participate in GEF projects (personal interview with Mr. Ludovic Bernaudat). While costs related to human and technical resources remain, the GEF's provision of financing facilitated cooperation between Agencies by mitigating mutual distrust. In addition, for efficient project execution, GEF also developed a series of systematic procedures ranging from a proposal to review, amendment, and implementation (GEF, 2018, p. 108). Therefore, as the Agencies repeatedly interact over GEF projects along with the systematic procedures, they increasingly recognize the scope and costs of cooperation envisioned in GEF projects that are acceptable for counterparts' Agencies in relation to their autonomy as well as how much their counterparts' Agencies accommodate environmental goals into their original organizational mandates/activities.

While Agencies often do not jointly deliver each project (in many cases, one agency leads one country project), IOs and IOs staff members have many opportunities to interact and build mutual expectations under a shared set of GEF institutions. For example, staff in charge of chemical issues in each agency regularly meets during COP meetings for Basel, Rotterdam, and Stockholm Conventions and the Minamata Convention. Considering COP

decisions on financial and technical assistance for implementing the respective Convention, they discuss what kind of project activities they could plan and deliver in the focal area of chemical waste in a specific GEF replenishment period. In addition, they learn from each other in regular meetings by sharing the successes and failures in each GEF project. Agencies also jointly hold workshops for stakeholders (e.g., government, businesses, and civil society) on a given environmental issue (personal interview with Dr. Shunichi Honda). In this way, the GEF Instrument and GEF's nature as a funding arrangement create an environment where the Agencies reinforce mutual expectations through their repeated and long-run interactions.

GEF's Institutional Realignment

GEF's programmatic approach, which was adopted to enhance the coordination between Agencies in 2008, has reinvigorated mutual expectations among Agencies. Since the late 1990s, criticism of the low performance of GEF projects has grown. In response to this criticism, a programmatic approach to the modality of support was formally introduced in May 2008 and further pursued under the leadership of GEF's CEO and Chairperson (2012–2020), Dr. Naoko Ishii. One meaningful way to cope with the inefficiency of GEF projects was to launch projects with substantial and immediate impact (personal interview with Mr. Ludovic Bernaudat). Accordingly, the programmatic approach represents a shift from conventional single-issue or single-country projects to a more integrated, systemic, and impactful approach that establishes a program comprising multiple-country projects. Such a program also must be multifaceted: social, economic, and developmental, as it approaches a given problem comprehensively rather than segmentally to enhance its performance. This requires different types of expertise from other IOs, making coordination among Agencies increasingly important (GEF, 2018, p. 90; personal interview with Dr. Shunichi Honda).

However, before introducing the pragmatic approach, Agencies faced some difficulties in their coordination. In many cases, competition among Agencies over resources, control, power, and money constrained their joint efforts (Graham, 2017; Graham & Thompson, 2015). This issue has been raised and criticized repeatedly by the GEF Overall Performance Study (OPS) from OPS1 (1988) to OPS5 (2014). In these reports, OPS raises the acute concern about competition among Agencies and calls for recalibrating the division of labor based on comparative advantages (Graham, 2017). Such competition was against the GEF's initial expectation that the Agencies could easily coordinate their activities. Against this background, the programmatic approach attempts to coordinate Agencies more actively, which has resulted in some progress.

Indeed, GEF GOLD was launched as a "program" rather than a project under Ishii's initiative and thus was characterized as a cross-cutting issue for which cooperation among Agencies is essential.[9] The GEF-6 Program Framework Document praised coordination undertaken by GEF GOLD by stating that "(w)ith the combined comparative experience that the different GEF implementing agencies bring…, the Programme will ensure that the barriers identified are addressed through interventions, sourced from a broad range of experience and expertise, that address challenges at the national and local level."[10] In addition, the Scientific and Technical Advisory Panel review of the GEF GOLD Program also applauded its "good inter-organizational coordination for addressing complex issues of markets, informality and information needs."[11] These evaluations indicate that the programmatic approach successfully introduced a clear and effective division of labor among Agencies, and inter-organizational cooperation under GEF GOLD has greatly benefited from it. Thus, together with the GEF instrument and the GEF's funding arrangement, the programmatic approach is expected to have reduced uncertainty among Agencies.

In fact, UNEP's current cooperation with UNDP and UNIDO within GEF GOLD relies on mutual trust fostered through GEF's prior thick institution. In my interview, a UNEP official who has long been involved in GEF projects said the absence of legal stipulation for UNEP's cooperation with UNIDO and UNDP is not surprising because these IOs take their environmental cooperation for granted, given their long-standing cooperation. Inter-organizational discussion on the development of GEF GOLD projects during the INC and COP conferences for the Minamata Convention builds on working relationships between IO personnel fostered through past GEF projects. They even considered the comparative advantages of individual officials learned through their prior joint activities (e.g., an individual official's strong networks with local stakeholders in each recipient country) (personal interview with Dr. Shunichi Honda).

Arguably, the turnover of IO staff members could negatively affect the development of working relationships. However, the same UNEP official reported that in UN agencies, the turnover of UN staff members is based on a voluntary request by each UN official, rather than a top-down organizational order. Since IO staff members do not request relocation often, considering their family lives, the turnover rate is low, at least for UN agencies involved in GEF projects. Indeed, in his seven-year working experience for GEF projects related to chemicals treaties, including the Minamata Convention, there was no turnover, and he has been working with the same staff members from other IOs (personal interview with Dr. Shunichi Honda). While the staff turnover might vary for different organizations (World Bank or International Monetary Fund outside the UN may have different customs), turnover does not seem to have a negative effect, at least in my case.

In sum, cooperation under GEF GOLD is characterized by the GEF's thick prior institution. The GEF instrument and funding arrangements, as well as the GEF's programmatic approach, helped IOs effectively adjust their mandates and activities, which

then fostered IOs' mutual trust. That is, repeated communication between leading stakeholders (Agencies) and strengthened interpersonal relationships between IOs personnel helped clarify counterparts' intents to cooperate in implementing international environmental agreements. This, in turn, ameliorates the enforcement problem faced by IOs under the Minamata Convention. GEF GOLD not only took advantage of reduced uncertainty through a prior institution but also *built on* it. GEF GOLD skillfully utilized GEF's preexisting funding scheme and executed procedures for new GEF GOLD projects on ASGM without incurring additional costs for itself or the Agencies.

Conclusion

Previous studies on cooperation between IOs have paid limited attention to diversity among their cooperative arrangements. In this study, by incorporating a perspective of institutional context (Copelovitch & Putnam, 2014; Jupille et al., 2013, 2017), I argued that the choice of cooperative arrangements depends on the thickness of the prior institution under which the same pair of IOs cooperated. Thereby, this study contributes to the theoretical discussion on the institutional context and bridge between rational and historical institutionalism (Copelovitch & Putnam, 2014; Jupille et al., 2017). This case study on the cooperation between IOs under the Minamata Convention empirically supports my prediction. Under the prior thick GEF institution, UNEP, UNDP, and UNIDO have interacted repeatedly and fostered mutual expectations for cooperation on environmental issues, which led to a decentralized cooperative arrangement for their present cooperation. Meanwhile, the prior institution of the IOMC was institutionally thin and forged at arm's length. In the absence of a coordination mechanism, UNEP, WHO, and ILO did not have an opportunity to develop mutual expectations and established a centralized arrangement for their current cooperation.

These findings provide important theoretical and policy implications. First, they highlight the importance of focusing on prior institutions when designing a cooperative arrangement between IOs. IOs need to overcome autonomy constraints and imperfect information regarding counterparts' cooperative intent. This can be done by adopting appropriate institutions concerning the mutual trust IOs formed through the previous institution. This insight also speaks to the relevant literature on orchestration and inter-institutional coordination in regime complexity. About the former, an IO should utilize different soft means for the orchestration, depending on the nature of IOs acting as intermediaries. For example, if IOs have cooperated before as intermediaries in a different setting, an orchestration in a new setting may require only a decentralized arrangement, solely relying on IOs' personnel to manage cooperative activities. Whereas orchestration literature often takes a one-time snapshot of orchestration, this paper underlines the importance of tracing an orchestrator-intermediaries relationship over time. In relation to inter-institutional coordination, this paper suggests that different forms of ordering may be suitable for different pairs of institutions (Eilstrup-Sangiovanni, 2022). Top-down restructuring (treaty reform or the creation of cross-cutting institutions tasked with managing complexity) may be more effective than bottom-up adaptation (ordering through mutual accommodation in ongoing interactions between institutions) but inhibited by conflicting preferences of member states. However, if a pair of institutions have engaged in collaboration previously, a sense of division of labor among involving actors formed through prior interaction could make a bottom-up adaptation effective. Thereby, inter-institutional coordination may be achieved by dodging member states' conflicting interests.

Second, my finding also speaks to the discussion on institutional choice. Importantly, the prior institution did not directly facilitate current cooperation under the Minamata Convention by influencing only uncertainty. Current cooperation (GEF GOLD) is even built

on and exploits the functions of GEF's prior institution. This is a rational strategy because IOs do not have to create a new cooperative environment (institution) from scratch, which saves institution-building costs. Of course, alternatively, UNEP's cooperation with UNIDO and UNDP could have been developed entirely outside the GEF's institution. The former was chosen because it was cost-efficient to exploit prior institutions if the institution works effectively. This is consistent with the notion of institutional nesting (Aggarwal, 1998). In addition, this aligns with Jupille et al.'s (2017) argument that using an existing institution, if satisfactory, is a default institutional choice because it is less risky and costly than other forms of institutional choice. My additional finding in this respect is that, as illustrated by GEF's programmatic approach, a prior institution can be effectively realigned in a way that promotes future cooperation between IOs.

These findings provide an important policy implication for how policymakers could effectively design technical cross-cutting environmental cooperation between IOs in the age of SDGs, which connects social, economic, and environmental problems. In the United Nations Environmental Assembly (UNEA) 5.2. that took place in February 2022, many states and IOs representatives acknowledged the necessity of inter-organizational cooperation, including the Secretariats of international environmental treaties, to successfully realize the SDGs. My findings suggest that the appropriate choice of a cooperative arrangement depending on the counterpart IO maximizes the effectiveness of inter-organizational cooperation and facilitates the efficient use of the organizational budget.

Despite these novel findings and implications, my theoretical and analytical focus on cooperation in a single environmental treaty poses some limitations to external validity. First, while this study highlighted that the thickness of a prior institution is relevant in determining arrangements for cooperation between IOs, I cannot establish the degree of thickness required to make a decentralized arrangement sufficient for current cooperation. Second, IOs analyzed

in this study belong to the UN system. My analysis cannot exclude the possibility that IOs under the same umbrella are more likely to form thick prior cooperation, which, in turn, leads to decentralized cooperation (Johnson, 2014). Future studies should test this theory against a pair of IOs belonging to different organizational systems. Third, the influence of member states, theoretically and empirically controlled for in this study, would be greater in other less technical, high politics issues. In this case, member states' politics predominantly determine cooperative arrangements, where the effect of prior cooperation might be limited. Future studies should analyze the effect of prior institutions on inter-organizational cooperative arrangements on other environmental issues. Empirical evidence from different fields will better identify the scope of applicability of my theoretical framework and provide a more systematic guide for designing inter-organizational cooperation.

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Notes

[1] Formally, these chemicals treaties are the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

[2] Another type of uncertainty widely discussed in the rational design literature is uncertainty about the state of the world (Koremenos 2016, 39). This refers to the true distribution of benefits from cooperation being unknown until the future. This type of uncertainty falls beyond the scope of this paper.

[3] Other cooperation between IOs include the Inter-Organization Program for the Sound Management of Chemicals (IOMC) Mercury Group and UNEP Global Mercury Partnership, which are characterized by thin institution. These include information sharing, coordination of organizational activities, knowledge dissemination, and technical advisories rather than collaboration at the working level.

[4] Some may argue that, against the theory, member states rather than an IO set up this stipulation given that treaty text is an outcome of negotiation among states. Nonetheless, UNEP is not hardly passive in negotiations for international environmental treaties (Bierman & Siebenhüner, 2009). Especially for technical and administrative issues related to implementation (e.g., reporting, dispute settlement, and information exchange etc.), treaty language suggested by negotiators from IOs is adopted. Considering that the stipulation on health issue is an administrative matter related to treaty implementation, this study sees a greater role of UNEP in relation to member states behind the stipulation.

[5] The Governing Body of the International Labour Office is the executive body of the ILO, while the Office is its secretariat. Thus, the Governing Body decision makes the ILO accountable for the member states on its cooperation with UNEP.

[6] GEF GOLD website https://www.planetgold.org/asgm-101

[7] https://www.planetgold.org (accessed 10 September 2020). The UNEP's comparative advantage for the GEF is that it is the only UN organization with a mandate to coordinate the UN's work in areas where the core business is in the environmental field. UNDP's comparative advantage is its strength in development, including its global network of country offices, and its experience in integrated policy development, human resource development, institutional strengthening, and nongovernmental and community participation. UNIDO's comparative advantage is industrial development and its strong connections with industries (https://www.thegef.org/partners/gef-agencies, accessed 13 July 2020). While UNDP is an original implementing agency, UNIDO was incorporated as an executing agency in 1999 and as an implementing agency in 2006. Executing agencies are entitled to regularly contribute to the management and execution of GEF projects, while implementing agencies are provided with direct access to the GEF Trust Fund resources for projects. GEF agencies include both implementing and executing agencies. (https://www.thegef.org/partners/gef-agencies, accessed 13 July 2020). The fact that UNIDO became an implementing agency in 2006, later than UNDP and UNEP, is unlikely to have negatively affected the development of mutual expectations. UNIDO had a seven-year work experience until the adoption of the Minamata Convention in 2013, which should have provided UNEP and UNIDO with enough time to foster mutual expectations. In fact, a UNEP official does not see any difference in the depth of the inter-personal relationships with UNIDO and UNDP (personal interview with Dr. Shunichi Honda).

[8] These IOs are the Food and Agriculture Organization of the UN (FAO), ILO, UNDP, UNEP, UNIDO, the UN Institute for Training and Research (UNITAR), WHO, World Bank, and the Organisation for Economic Co-operation and Development (OECD).

[9] Ishii's other achievement is the ISLANDS program, which focuses on preventing the build-up of materials and chemicals in the environment that contain persistent organic pollutants, mercury, and other harmful chemicals, in small island developing states, and managing and disposing of existing stockpiles of harmful chemicals that accumulate across the regions. This project involves active cooperation among UNEP, Inter-American Development Bank (IDB), FAO, and the UNDP (UNEP 2019, 2).

[10] See page 10, https://wwfgef.org/gef/wp-content/uploads/2017/03/Amazon-Sustainable-Landscapes_Program-Framework-Document.pdf (accessed 8 December 2020)

[11] See page 1, https://www.thegef.org/project/global-opportunities-long-term-development-asgm-sector-gef-gold (accessed 30 August 2020).