This book is devoted to improving our understanding of the ability of global civil society to solve global problems. Non-state actors and civil society agencies do not act alone. Governments and their agencies, and market-based corporations must also play their parts, often more so and more importantly than civil society. Nonetheless, we argue in this book that civil society and its diplomats, in a process and strategy that we call civic diplomacy, have distinct advantages when it comes to solving global problems. Moreover, the attributes of civil society enable its actors and agencies to contribute in ways that are necessary and often unique, even if not always sufficient to solve global problems, especially when they are complex and interrelated.

Complex global problem-solving is a rapidly emerging theoretical and practical field. Unsurprisingly, there are no hegemonic or unified theoretical frameworks that encompass the available range of approaches and experience in this field. Rather, there are bursts of intense research and applied practice that, once documented, provide fragmentary insight and eclectic knowledge on how civil society organizations and individuals can undertake effective global problem-solving. Many disciplines and theories, including complexity and network theory, risk analysis, social movement theory, security analysis, international relations, political science, organization theory, information theory, urban geography, economics, etc., lend partial insight into the opaque, rigid snarls of intertwined global problems. By the same token, they also offer clues on how to untie these knots and weave together an enduring tapestry of interdependent solutions to these problems.
We start the book by surveying these competing and complementary approaches to understanding complex global problems and solutions. The reader should be prepared for the fact that taxonomies of global problems are inconsistent, sometimes contending, and only partly overlapping. Yet these are the conceptual maps that global civil society, states, and corporations use to create order out of chaotic complexity in order to define their political and social agendas. Even the questions of what differentiates global problems from lesser problems and whether their resolution is conceivable are contested, making the field itself turbulent. Some of the global problems manifest in Northeast Asia, the region of concern to this book, are “emergent” — that is, no one anticipated them and, in some cases, not many people even see them. An example is the burgeoning urban insecurity associated with the emergence of transnational mega-urban corridors resulting from cumulative, bottom-up *in-situ* urbanization, in turn driven by globalized social and economic transformation and the dislocation of the countryside. The resultant in-fill between established cities creates a totally new urban geography that transcends state borders in Northeast Asia and will transform the task of social, economic, and cultural governance of the region. Yet cross-border interstate cooperation remains nascent and shallow as if this physical joining were somehow disconnected from governance. In contrast, cross-border city-level cooperation is vibrant and profound in some areas — as we describe in chapters 2 and 6 — and offers many clues as to how governance must change to accommodate complex realities.

Complexity itself is a concept that does not translate easily across cultures. In the West, it has a modern scientific meaning that goes beyond the simple English denotation of a phenomenon as tightly braided, interwoven, and often opaque; complexity also refers to attributes such as non-linearity, cross-level effects, and unpredictability. These characteristics of complexity demand additional efforts at control, often leading to even greater increasing social complexity through the formation of new rules and organizations to manage the response. As the Japanese sociologist Mushakoji Kinhide suggests, East Asian cultures share an inclination to adapt to, rather than resist and control, complexity. Thus, he avers, Chinese culture is guided by its traditional Confucian belief in the harmonious rule of Heaven; Koreans exhibit an agile response rooted in a more shamanistic

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1 Personal communication to Peter Hayes, 23 September 2014.
outlook that originated in a formerly nomadic lifestyle; Japanese society shows a dualistic response to complexity, partly because of its agricultural and shamanistic roots, and partly because of its modern transformation into a western technocratic social system.

These different orientations are reflected in the chapters of this book: in, for example, the distinct treatments of urban insecurity in Japan, China, and Korea, or in the collisions of lived historical time and identity in relation to future scenarios described in the final chapter. We note these authorial differences here to alert the reader to them, not to argue that one perspective or another is somehow better suited to recognizing and managing the complexity that is created by the emergence of interrelated global problems. Inevitably, these underlying cultural differences come to the surface whenever cross-border communication, coordination, and collaboration are required to define and implement shared solutions to these problems. Even defining the nature of these problems, let alone the resulting solutions, requires immediate negotiation between stakeholders in which all the pre-existing and contemporary distributions of power come into play, not just between states and companies, but also between civil society agencies and individuals seeking ways to collaborate across borders.

How complexity affects the perception of global problems as well as the most effective response is not well understood. In the field of nuclear insecurity, for example, it is possible to trace the emergence of true complexity as the number of nuclear weapons states increased from one (the United States from 1945-48) to two (the Soviet Union in 1948-51) with one to five targeted states; to six nuclear weapons states and up to about thirty-eight targeted states during the bipolar Cold War, including US and Soviet allies; and to nine nuclear-armed states since 2006 with at least forty-four states as potential targets. Reductive theoretical prisms were used to simplify the hugely complicated Cold War to the global nuclear balance of terror between the United States and the former Soviet Union. Today, however, there is no lens that can simplify the true complexity of dozens of relationships between nuclear armed states and their allies and adversaries, nor how their advanced conventional weapon systems interact with their own and others’ nuclear forces in ways that could trigger nuclear war. In a complex system, a small, otherwise insignificant event may be amplified by virtue of timing and location in a complex network of relationships into system-wide failure — in this case, all-out war and nuclear war — even if
all the system components at the national and organizational level work as intended, without component or technological failure or accident.

As the chapter on nuclear insecurity recounts, in this region new actors can erupt almost without warning and in a very short time. For example, the totally unanticipated explosion of social media as a form of deliberative democracy in China has introduced a completely new security factor in East Asia involving nearly half a billion people. This on-line opinion generator already drives and restrains the actions of the Chinese state on nuclear and conventional security issues in ways that are new and unpredictable. Although the Communist Party remains in control of foreign policy and often manipulates on-line opinion to buttress domestic support for its external actions, the Chinese state is increasingly driven by nationalist sentiment which may push it to act in ways that risk loss of military control in collision with other states, and uncontrolled escalation to war and nuclear war involving two or more states (and possibly non-state actors). The potency Chinese popular opinion expressed via social media is barely perceived in the realist scholarly and policy nuclear security circles of East Asia—let alone documented, studied, analyzed, and enshrined into norms, rules, procedures, and shared institutions whereby the risk of war, nuclear war, and nuclear proliferation may be managed and, over time, reduced.

In the chapter on energy security, the authors drill deeply into the terrain of complexity and the linkage between energy, climate, and urban insecurity. In both qualitative and quantitative dimensions, this chapter shows that it is possible to obtain rich local insight into these linkages, exploring them at different levels (city, national, regional) and across issues, and to identify ways in which states, energy agencies and companies, and civil society can promote global climate mitigation and adaptation and, via regional cooperation, increase economic, social, and ecological well-being at the same time. Some of these schemes could also help reduce the intensity of the threat arising from North Korea’s nuclear armament and its linkage to regional agendas for cooperative problem-solving on urban or climate insecurity that are otherwise stalled by conflict created by the North Korea’s actions and the response of its Great Power antagonists.

Having created a tapestry that combines very different types of analysis from divergent, sometimes antithetical starting positions, we argue that civic diplomacy, as employed by civil society agencies and individuals in combination with local governments and municipalities, presents a new and powerful way to adapt to and manage the complex interaction of global
problems in this region. Of at least thirty truly global “mega-problems,” such as global poverty, climate change, etc., we selected only five for close examination in this region: civil society, nuclear weapons, urban insecurity, energy, and climate change. While not underestimating the potency of uncivil society and non-state actors, we argue that civil society engaging in constructive civic diplomacy offers new and unique capacities to resolve such linked problems in this region, and often outperforms both the state and corporate sectors in specific instances. Indeed, we carefully examine the performance of official South Korean “complex networked diplomacy,” which from 2006 aimed to capitalize on South Korea’s location in the complex security and geopolitical relations of the region, especially in relation to how best to solve the problem of North Korea’s nuclear breakout. We find that in relation to reducing the threat posed by nuclear weapons, reforestation, refugee flows, and urban and energy insecurity, civil society has proven effective in ways that the states of China, South Korea, and Japan could not hope to be via traditional diplomacy. We further conclude that there is great potential to improve the already significant contribution of civil society to solving complex global problems in East Asia, often in tandem and sometimes in opposition to states and the corporate sector, but always informed by deep and intimate knowledge of local circumstances and driven by commitment to universal values of justice, equity, ecological sustainability, peace, and security.

This book consists of three sections presented in seven chapters. In chapter 1, we provide a summary for readers seeking a quick understanding of the entire narrative. We follow this introduction with a conceptual chapter on global problems, three chapters that delve into specific global problems and their inter-linkages in Northeast Asia, and two concluding chapters on civil society and complex global problem-solving in this region.

In chapter 2, Peter Hayes and Richard Tanter disaggregate key concepts into their constituent elements to elucidate the complexity of global problems such as energy scarcity, climate change, and urban insecurity in China, South Korea, and Japan. They ask, “What is specifically ‘global’ about a global problem, and what underlies an issue of global concern that makes it problematic?” They show there has been only one effort — the World Economic Forum’s annual Global Risk report — that provides a consistent approach to defining and identifying global problems. Yet a decade of the Forum’s results suggest that, without a negotiated consensus as to what constitutes global problems, there is no basis for identifying the global
problems that are sufficiently important to justify joint action in the form of shared solutions. Many of these solutions must be implemented across borders or entail international organizations to coordinate decentralized action in many states.

Next, Hayes and Tanter sketch the conceptual world of complex systems to provide a basic understanding of their nature, especially their ability to surprise us with unexpected events. They point to the emergence of a continuous city corridor stretching from Beijing to Tokyo that, by 2050, may be the world’s first giga-city with a billion people. The emergence of this corridor serves as an example of a transformation that poses entirely new sustainability and security challenges transcending state boundaries and national political cultures, but that does not yet figure on national policy agendas.

Drawing on the work of eminent South Korean political scientists, Hayes and Tanter suggest that developing and mobilizing the networking capacities of civil society, organized transnationally, is one of the most productive ways to tackle the region’s increasingly complex set of global problems. They review the outcomes of cooperative environmental projects undertaken by inter-city, cross-border networks between Japan and China. They suggest that linking environmental and security civil society networks to those of local governments will create a new type of resilience in the region and lend capacity to solving global problems in spite of their complexity.

In chapter 3, David von Hippel — with contributions by Kae Takase (Japan), Yi Wang (China), Myungrae Cho (Korea), Tetsunari Iida (Japan), and Sun-Jin Yun (Korea) — start to traverse the complexity of energy security in the region. The development of this chapter began before 11 March 2011, the date of the earthquake-tsunami that struck Japan and caused the Fukushima nuclear catastrophe. This event shattered conventional concepts of energy security and nuclear power and increased the complexity that already confronted policymakers on energy security at the end of the 20th century. Von Hippel and his colleagues use quantitative and qualitative analysis based on case studies in Japan, China, and South Korea to describe existing and alternative pathways for providing future energy security in each country, including the implications of these pathways for urban and ecological security. They superimpose the impact of climate change on these energy security pathways and spell out the implications of adapting to climate change. They also present key pressure
points at which civil society can push for constructive changes — especially ones that reduce the North Korean threat to its neighbors. They conclude by outlining ways in which the South Korean state might not only improve energy security in the Republic of Korea (ROK), but also improve urban, climate, and nuclear security. In particular, they propose steps to promote the involvement of the Democratic People’s Republic of Korea (DPRK) in regional energy infrastructure development as an inducement to engage on nuclear weapons and related issues. In so doing, the ROK would be helping to address the DPRK issue as well as its own energy, climate, and urban security needs.

Cities are inherently complex systems beset by many intractable problems. In chapter 4, Sanghun Lee and Takayuki Minato suggest that irreversible and rampant globalization has transformed every aspect of daily life and made cities even more insecure. Consequently, the security of cities remains threatened from different directions simultaneously. Developments such as the deepening inequality found in cities and the in-situ urbanization in the rural space between them are not planned. The result, Lee and Minato argue, is that infrastructure services for critical shelter, food, energy, and water supplies are now seriously threatened. Additionally, terrorism and inter-state war with nuclear or conventional weapons threaten city security.

By exploiting their increasing interdependence, however, cities can learn from each other and create cross-city solutions to common problems via complex, networked, and shared strategies. Lee and Minato suggest provision and good governance of “smart critical infrastructure” has become the central concern for creating secure and sustainable cities. Conversely, without provision of secure and sustainable critical infrastructure and its good governance, urbanization in an era of globalization leads to more, not less insecurity and vulnerability, thereby undermining the very essence of city formation.

They note that, while the dynamics and nature of urbanization and the delivery of security are uneven within and between countries, coastal cities in China, South Korea, and Japan face new insecurities such as climate change impacts and heat islands. The resulting thermal stress and public health risks, as well as the impact of floods, storm surge, and increasingly frequent and intense storms on cities, are common problems with global as well as local causes, and many of the solutions may be shared if adapted to local circumstances.
Networked civil society organizations working closely with city
governments can precipitate a new, emergent pattern of decentralized,
networked governance that supplements and supersedes, but in no way
substitutes for the role of states in the region. Lee and Minato describe
model cities in each country with repertoires of ecological and urban
security strategies. These cities offer learning opportunities and are
incubators for new strategies with implications for all cities in the region.

In chapter 5, Peter Hayes and Roger Cavazos examine the increasingly
complex threat posed by nuclear weapons of mass destruction in Northeast
Asia. They first sketch the evolution of the role played by nuclear weapons
in international affairs and summarize the prevailing definition of the
nuclear weapons problem both globally and regionally, from a conventional,
policy-oriented viewpoint. They suggest the Cold War nuclear hegemony
of the United States has been up-ended by the DPRK’s at first slow-motion
and now accelerating “nuclear breakout,” leading to a renewed and likely
increased threat of nuclear next-use in the region.

Hayes and Cavazos suggest the trend towards greater trade integration:
mobility of labor from poor, labor-surplus countries to demographically
aging, labor-short, rich countries, and the de facto cross-border urbanization
in massive corridors, renders many of the old state-based nuclear deterrence
strategies meaningless. At a certain point, likely not too far in the future
and certainly by the mid-twenty-first century, targeting people and places
with weapons of mass destruction will render nuclear armament not only
wasteful, but absurd. The rise of non-state actors armed with nuclear
weapons or materials underscores the obsolescence of relying on nuclear
weapons for security.

Their conclusion in chapter 5 argues that only civil-society-based
cooperative security strategies can supplant nuclear weapons and prevent
related insecurity from destabilizing the region. Case studies highlight
the role played by social movements in China, South Korea, and Japan in
constraining or deflecting state policies on nuclear weapons (or weapons-
related fuel cycle activities). They point to the rise of virtual deliberation
on security issues in China using social media that involves millions of
Chinese “netizens.” These netizens represent a potentially constructive
social force capable of changing the security landscape in the region and
providing new impetus for abandoning nuclear weapons.

In chapter 6, Kiho Yi and Peter Hayes — with contributions by Joan
Diamond, Steven Denney, Christopher Green, and Jungmin Seo — focus
on the implications for ROK foreign policy of the actual and potential role of civil society in solving complex global problems in Northeast Asia. They highlight the emergence of independent civic diplomacy originating from civil society in South Korea, Japan, and China, rather than from the state. This diplomacy dedicates its energy to solving traditional as well as new cross-border security issues in the region. They start by tracing the rise of official South Korean complex diplomacy aimed at exploiting the ROK’s middle power status and location in the international system while addressing this increasingly complex foreign policy terrain. Next, they examine the emergence of civil society networks operating across borders. They find that the characteristics of civilian actors vary from country to country, and that their capacities are also uneven when compared across China, the ROK, and Japan.

Nonetheless, at a regional level, networks of these civil society actors have formed that tackle a number of global problems as or more effectively than states, at least in particular moments and circumstances. After outlining the roles these organizations play in functional and structural (networking) terms, Yi, Hayes, and colleagues examine six case studies to derive lessons learned from four civil society networks for ROK foreign policy. Their first case study depicts the networked civil society response, often led by South Koreans, to supplant regressive Japanese history textbooks by producing the 2005 book *A History to Open the Future*. The second case study looks at how South Korean non-governmental organizations addressed deforestation and food scarcity in Northeast Asia, especially in China and North Korea. The third case study examines the critical role played by the Refugee Aid Network in the passing of South Korea’s Refugee Act, the first independent refugee law passed at the national level in Asia. The fourth case study reviews the networking experience of a private initiative, Jeju Peace Forum, and its evolution from a network focused on a peace initiative to solve the North Korea problem into a multi-issue network of networks. The fifth case study traces the creation and influential intellectual role of the East Asia Institute. The sixth case study explores efforts by the most recent of these civil society initiatives — the Asan Institute for Policy Studies — to build global networks and the implications such efforts have for global community-building and cosmopolitanism.

Following this excursion into historical and empirical case studies, Yi, Hayes, and colleagues review the role of inter-city collaboration across national borders, and the implications of civil society-oriented network
strategies for the ROK’s state-centric, networked complex diplomacy strategy. They observe the potential for common cause between these trans-border local initiatives and issue-based civil society networks to add a new layer of social capacity to solving the problems that afflict states. They conclude the sixth chapter by proposing the adoption of civic diplomacy as a separate category to the official complex diplomacy pursued by the ROK state to implement its foreign policy. They suggest the rise of civic diplomacy working in concert with complex diplomacy, in addition to the shift to the civic state and nation, provides the extra social capacity whereby the ROK can respond best to the challenges posed by global and regional problems. In this vision there is no singular, unified civic foreign policy, but as many civic foreign policies as are needed to respond to the exigencies confronting communities and the issues evoking cross-border responses by civil society.

In the seventh and final chapter, Peter Hayes, Kiho Yi, and Joan Diamond describe how cross-cultural civil society organizations explored the true uncertainty posed by complex global problems for the future of Northeast Asia at two events held in Seoul in 2009 and 2010. In 2009, they tackled the question, “Northeast Asia 2050: Is there a role for civil society in meeting the climate change challenge?” In 2010, they responded to the focal question, “Will East Asia Mega-cities be Secure and Sustainable by 2050?”

Without giving away the storylines of the eight scenarios created at these two events and described in chapter 7, we can reveal that Hayes, Yi and Diamond suggest that, in the case of many urgent regional security and sustainability issues such as migration, energy and urban insecurity, nuclear weapons, and climate change adaptation, it is civil society organizations that cross borders to find counterparts and create the transnational networks to anticipate future crises. By doing so, these civil society organizations create a new layer of social complexity commensurate with that of the emerging problem-terrain.

Moreover, developing a common agenda with milestones for action requires all participants to incorporate their accountability into their own agendas. They note how pre-existing patterns of time inhabited by civil society actors have adjusted to the demands for new patterns of activity generated by complex global problem-solving and via actions synchronized in new ways across borders. This process of integration generates a new experience of shared time that may be termed “complex
time” — constantly negotiated as civil society organizations expand and contract around common problems and implement joint problem-solving strategies. The authors suggest that the experience of communicating, coordinating, and collaborating across borders in civil society networks prefigures the creation of a new, hybrid identity for millions of individuals that transcends national identity based on statehood. For this reason, they remain optimistic about the future of civic diplomacy and argue it should often lead, not always follow, successful state-based complex diplomacy.

Returning to the overarching theme of the book — the role of civil society organizations in helping to solve interrelated, complex global problems — we believe that the strategies of civil society and their transnational networks provide at least part of the missing manual for global problem-solving. Exactly which tools and techniques are needed remains to be conceptualized and documented. The authors of this book are certain that civic diplomacy is one such tool, but there are many others — deep research methodologies, convening and facilitation techniques, communication and coordination systems that reduce transactions costs and support systems, enabling partners to co-evolve and support each other’s respective strategies.

No one knows where these ideas and tools will be invented and used. The authors are convinced the methodologies will be eclectic, even inconsistent, but still necessary to provide the requisite diversity of understanding and approach. We suggest many of the tools and techniques of global problem-solving will be invented, tested, and then replicated in Northeast Asia, even as civil society organizations adopt and adapt those tools offered by comparable organizations elsewhere in the world.