Elinor Ostrom and the Bloomington School of Political Economy

Volume 3, A Framework for Policy Analysis

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Introduction to Volume 3

Before she was awarded a Nobel Memorial Prize in Economic Sciences in 2009, Elinor Ostrom was best known, within her home discipline of political science, as the driving force behind the *Institutional Analysis and Development (IAD)* framework, which has been applied to a wide range of policy settings (Ostrom 1999; McGinnis 2011b). The analysis of public policy can be approached along many alternative pathways, and this volume sheds new light on this well-trodden path.

This volume collects fourteen papers that explore the historical development of this framework, illustrate its application to specific policy problems, and highlight recent extensions that ensure it will remain a vibrant focus of research for years to come. Three chapters were previously unpublished; only one (chapter 13) had been included in earlier collections of papers from the Bloomington School (Cole and McGinnis 2015a, 2015b; McGinnis 1999a, 1999b, 2000; V. Ostrom 1991, 2011, 2012; Sabetti and Aligica 2014; Sabetti, Allen, and Sproule-Jones 2009; Sproule-Jones, Allen, and Sabetti 2008).

Understanding Institutional Diversity (Ostrom 2005) remains the most comprehensive and authoritative explication of the entire analytical apparatus of the IAD framework, and the role it plays in the broader context of the Bloomington School of political economy. Whereas that book focused on the IAD as a tool for rigorous scientific research, in this book we collect examples of *policy-relevant applications* of IAD to a wide range of policy sectors. Although adherents of the Bloomington School strive to balance scientific rigor and policy relevance (McGinnis 2011b), most published works lean toward the analytical side. Consider, for example, the special issue of *Policy Studies Journal* dedicated to the IAD framework, which consists entirely of research articles, not policy analyses per se (Blomquist and deLeon 2011).

The best published examples of the use of IAD for policy analysis date back to the 1990s: Ostrom (1992) and Ostrom, Schroeder, and Wynne (1993). As long-time Workshoppers, we knew the Ostrom archives included several examples of direct policy applications, and we decided to publish a few of the best in this volume. More recently, the IAD (and the related Social-Ecological Systems framework) has been applied to a wider range of environmental policy issues, especially related to global warming. We have included a few recent examples, and this strand of literature will be covered in more depth in the fourth and final volume of this compendium on *Elinor Ostrom and the Bloomington School of Political Economy*.

The first half of this introduction highlights how the mode of analysis based on the IAD framework clarifies the range of intellectual challenges and social dilemmas that must be overcome to realize effective policy reform. The second half highlights what we consider to be the most important contributions made in each chapter.

Understanding Action Situations and Policy Processes

Over the years, the IAD framework has undergone subtle changes (as illustrated in Kiser and Ostrom 1982; Ostrom 1986a, 1989, 1999, 2007, 2010, 2011; Oakerson 1992; Ostrom, Gardner, and Walker 1994; Ostrom and Ostrom 2004; Ostrom, Cox, and Schlager 2014; Cole, Epstein, and McGinnis 2014a, 2014b). The authors of papers included here highlight different aspects of this framework, or interpret some components in different ways, but all share common presuppositions. As will become apparent in later chapters, this framework is especially useful as a device to organize the questions policy analysts ask as they learn more about some particular real-world policy process.

At the core of this approach to understanding policy lies an *action situation*, an abstraction of decisional settings in which individuals and corporate actors interact with each other by making choices that jointly determine the outcomes of some particular aspect of a policy question. Decisions and outcomes are influenced by the beliefs and incentives of individual actors, as shaped by the responsibilities and social expectations attached to any official position they may hold, and by the information available to them. These action situations are also shaped by preexisting conditions, grouped for analytical purposes into three categories: (1) the "nature of the good" under consideration, including all relevant biophysi-

cal conditions; (2) the social ties and cultural attributes that characterize the individuals interacting on that policy problem; and (3) the existing configuration of laws, regulations, rules, norms, and shared understandings held by the participants to be relevant to deliberations on that policy area.

Biophysical, sociocultural, and legal-institutional factors interact in complex ways to shape patterns of interactions among relevant actors as well as policy outcomes. These interaction patterns and outcomes are then evaluated by the same actors, and perhaps others as well, and these evaluations (and the outcomes that triggered them) feed back into all three of the categories of preexisting conditions, thereby setting the stage for the next round of action situations to take place.

Unfortunately, the dynamism embedded in this framework is not very effectively represented in its canonical depiction (see figure 2.1 in chapter 2, and figure 1.2 in Ostrom 2005, 15). The representation conveys an inappropriate sense that any one policy situation can be understood in isolation from the many other policy situations with which it is, in the real world, complexly interrelated.

Instead, we presume that there is no such thing as an institution-free context (Cole, Epstein, and McGinnis 2014). Every existing situation is shaped, in complex ways, by the preexisting configurations of rules, norms, and shared understandings. No policy reform can be applied to a completely blank slate. Instead, all policy advocates necessarily are engaged in efforts to introduce purposeful interventions into an already complex ecosystem of institutional arrangements.

Action situations are created by groups seeking to cope with newly emerging challenges as well as those that recur on a regular basis, albeit in changing detail. And they link these action situations together in chains of decisions, some of which are repeated so frequently that they become important institutional arrangements within which policy participants operate. Some sequences of action situations take the form of legally required processes or the standard operating procedures found in any formal organization.

Organization provides structure to the actions of individuals seeking at least some shared goals, by assigning particular tasks to different individuals or subunits of that organization, and by setting in place sequences of decisions that become institutionalized procedures in their own right. Within the IAD framework, a formal organization is a complex configuration of institutional arrangements and action situations.

> An organization is composed of one or more (usually more) action situations linked together by prescriptions specifying how outcomes from

one situation become inputs into others. Organizations may be thought of as a tree or a lattice with situations at each node. A particular set of rules structures the situation at each node. A general set of rules partially structures all internal situations and specifies the paths that may be chosen from one situation to the next. (Ostrom 2005, 57)

Although some action situations occur in regular sequences, many action situations will generally be active concurrently (Ostrom 2005, 56). Policy participants weave their ways through complex ecologies of action situations along multiple paths, which may proceed in a logical sequence, or become trapped in endless repetition, or double back upon themselves.

If we identify each significant decision mode as an action situation, then we need to identify the sources of the conditions that define this action situation. There has to have been some path of decisions that led us to our current plight. Some relevant decisions may be lost to the mist of deep time, but most will be identifiable, and can be imagined to have come out differently, or even to be changed to a different outcome by concerted action.

For analytical purposes, it is especially useful to conceptualize a policy process as a path through a complex network of linked action situations, with the outcome from any one node affecting the likely outcomes that will emerge from subsequent decision nodes. Some action situations will have only trivial consequences on others, but for many decisions of interest, the associated action situation may have very significant implications for later decisions, including ones to be made by other sets of actors. In effect, each *consequential* action situation constitutes a mini-critical juncture that shapes the opportunities and probabilities of subsequent steps, thereby imposing a form of path dependence at the micro level. Although the term "path dependence" is usually associated with more macro-level phenomena (North 1990), this same effect occurs in micro-level paths traced through the policy landscape.

In terms of the IAD framework, any collective decision to intervene in an ongoing policy process constitutes either a new action situation to be added to the existing system, or is a particular realization of a form of intervention that had already been incorporated into that system. Interventions frequently seek to influence the outcome of a focal action situation in an indirect manner, by effecting changes in other action situations that determine one or more of the factors that determine which outcomes are generated by that focal action situation (see chapter 4 for an extended illustration of this logic). Most interventions are intended to change the

beliefs, identities, incentives, or behavior of the actors making decisions in the focal action situation or in ones that are closely adjacent to it.

Each action situation denotes a nexus where a group of decision makers jointly confront important decisions related to some particular policy concern. To use the IAD framework, each of these critical decision nodes needs to be given separate consideration, and analysts face the difficult challenge of understanding how multiple action situations interact to jointly produce policy outcomes.

Two forms of connections between action situations have been examined in the IAD-based literature. The first is based on a long-standing distinction among different levels, or kinds, of decision situations. The IAD framework differentiates among three kinds of choice settings: (1) operational-choice settings in which the choices of the relevant actors directly impact tangible outcomes, (2) policymaking or collective-choice settings in which the actors shape the rules that constrain actors in operational-choice arenas, and (3) settings for constitutional choice in which decisions are made concerning which actors have standing in different choice situations as well as which kinds of alternative institutional mechanisms are available to them as they make their collective deliberations and operational-level choices (Ostrom 2005, 58–62). Although the IAD framework asks researchers to consider processes at all three of these levels, in most cases analysts focus on action situations occurring at only one or two of these levels.

A second form of linkage is manifested through an action situation's "working components," which define how the relevant actors interact in the context of that situation. In her presidential address to the Public Choice Society, Ostrom (1986a) acknowledges that this approach was inspired by the "rules of the game" that game theorists use to define game models, but she insists that a more general approach is needed to extend analysis to more informal settings in which real-life policy actors interact, especially since these boundedly rational actors are themselves influenced in subtle ways by social norms, shared understandings, and myriad other contextual factors.

Ostrom (2005) justifies this complexification of game models in detail. Briefly, each action situation is configured by interlocking components, which are related in the following manner:

> *Participants*, who can either be individuals or any of a wide diversity of organized entities, are assigned to *positions*. In these positions, they choose among *actions* in light of their *information*, the *control* they have

over *action-outcome linkages*, and the *benefits and costs* assigned to actions and outcomes. (Ostrom 2005, 188; emphasis added)

The seven working components are italicized in their first occurrence in this quotation. Each of these component elements may be modified by concerted action, but for the purposes of studying any one "focal" action situation, each component is fixed for that period of time. Furthermore, any effort to change any of these components would itself have to take place within the context of some other action situation. For example, congressional elections determine which individuals can vote on bills that will be considered by the next Congress.

McGinnis (2011c) defines as "adjacent" any action situation whose outcome directly impacts any of the "working components" of the focal action situation that lies at the heart of that particular analysis. This type of connection between action situations was implicit in the distinction among operational, collective, and constitutional levels of analysis. Examples of specific linkages between action situations were posited in a few earlier works (Ostrom 1986b), then addressed more explicitly in general (McGinnis 2011c, and chapter 4 of this volume, previously unpublished) and in particular policy settings (Mincey et al. 2013, reproduced as chapter 7 of this volume). This line of investigation remains to be fully developed.

In sum, the "rules of the game" or "working components" of any single action situation are presumed to have been determined by the operation of other action situations, either at the same or different levels of choice. The following sequence of sentences from Ostrom (2005) demonstrates just how profound the implications of this conceptualization for policy analysis are:

- Rarely do action situations exist entirely independently of other situations (p. 55).
- Where one draws the boundaries on the analysis of linked situations depends on the questions of interest to the analyst (p. 58).
- An institutional theorist must self-consciously posit the kind of information participants possess, the relevant preference structure of the participants, and the process they use for choosing among actions. Assumptions about information, preferences, and choice mechanisms are thus the essential components [that] need to be specified in order to generate hypotheses about interactions and outcomes that can be tested in a particular type of action situation or linked set of action situations (p. 99).

- To dig under that situation, however, to think about changing it, one needs to know a lot about the underlying structure leading to the social dilemma (p. 189).

Unfortunately, the resulting networks of adjacent action situations can be very complex. If each action situation is envisioned as a nexus of strategic competition, then actors dissatisfied with the outcome of any particular action situation could engage in "level-shifting strategies" (Ostrom 2005, 62–64) to seek to influence the outcomes of the collective- or constitutional-choice processes where the basic contours of the focal action situation was established. Since there may be no logical limit to deployment of this strategy, and since each of the working components in any one action situation have been determined by outcomes from adjacent action situations, anyone seeking to use the IAD framework to understand the implications or improve the outcomes of a fully articulated network of action situations may be overwhelmed by the immensity of the analytical task.

However, it is not necessary to know everything about everything before one can make a decision regarding a specific thing. So, if policy advocates perceive that an unacceptable policy outcome is driven primarily by the decisions made by rule-makers, and that these rule-makers are susceptible to be persuaded otherwise, then the logical choice would be to focus on lobbying efforts. Alternatively, if certain pieces of information were not made available to some actors in a timely fashion, reformers could revise the procedures in place in whatever organization was responsible for distributing that information to selected actors. It is not necessary to know the entire network of adjacent action situations, so long as the analyst can identify critical deficiencies in the current understanding of the situation, and follow the trail of connections to locate the appropriate and most effective point of intervention.

The rationale that lies behind development of such a complex analytical framework is worth further justification, and for that we draw, once again, from the words of Elinor Ostrom.

> The language developed in this book to identify the working components of action arenas that exist everywhere . . . ; to analyze the similarities and differences in rules, norms, and strategies . . . ; and then to group similar rules together by the component of the action situation they directly affect . . . , is undoubtedly more complex than many contemporary scholars would prefer. This complexity of language has not been introduced lightly. A scholar should also keep analysis as simple as possible—given the prob-

> lem to be analyzed. Just as important, however, is developing a mode of analysis that enables scholars, policymakers, and participants in ongoing processes to grapple with the problems they face by digging through the layers of nested systems in which these processes exist. . . . Thus, we need a consistent, nested set of concepts that can be used in our analysis, research, and policy advice in a cumulative manner. (Ostrom 2005, 256–57)

Building this capacity for analytical complexity is required if institutional analysts and direct participants are to properly understand "the complex, polycentric systems of governance that are created by individuals who have considerable autonomy to engage in self-governance" (Ostrom 2005, 258).

Overview of This Volume

This volume is organized in five parts. Part I provides detailed explanations of the components of the IAD framework as well as guidelines for its practical implementation in research projects or policy analyses. Parts II and III cover empirical applications of the IAD (and related) frameworks to, respectively, the study of metropolitan governance in the United States and to questions of international development and environmental policy. Part IV illustrates ways in which the complicating factors of power inequities, patterns of policy discourse, and the diverse interests of multiple actors operating at different levels of aggregation can be integrated into policy analyses based on the core IAD framework. Finally, in the two chapters in Part V, Vincent and Elinor Ostrom raise critical concerns that should be kept in mind by future researchers as they continue to build upon the analytical frameworks bequeathed to us by these pioneers of the Bloomington School of political economy.

Part I: Implementing Institutional Analysis

Chapter 1 consists of introductory material from the course syllabus for Elinor Ostrom's last graduate seminar. For more than two decades, she yearly taught this general introduction to institutional analysis and development, with particular attention to its application to processes operating at the micro level. Although the list of assigned readings changed from year to year, something very similar to this material was included every time.

In these introductory remarks, she succinctly summarizes the core foundations of the Ostrom Workshop approach to research and policy analysis. She begins by introducing four central pillars of this approach: (1) a focus on individuals as fallible, yet capable, decision makers (2) who use institutions to organize their collective problem-solving endeavors; (3) the need to develop better frameworks and theory to understand behavior; and (4) the active application of these concepts to diverse areas of policy concern. She warns students that they will be exposed to a wide range of theoretical conceptualizations and methodological tools, and highlights the role that the IAD (and in recent years the SES) frameworks will play in helping students integrate these diverse viewpoints.

Ostrom advises novice institutional analysts to remain open to learning from what they observe in real-world settings, and to avoid becoming too fond of any one theoretical perspective or mode of policy solution. For example, she cautions against thoughtless invocation of the phrase "the State" to designate some disembodied policymaker, and to focus instead on the individuals and organizations that are specifically responsible for framing, making, and implementing any particular policy decision.

Another point that comes through clearly concerns the balance between the promise and the limitations of policy analysis and design. After assuring the beginning student that the tools to be covered in this course will help them understand how groups have been able to craft effective institutions to cope with specific policy concerns, she cautions them against any presumption that this knowledge will enable any of them to put forward a comprehensive design for the ideal society (V. Ostrom 1991, 1997).

In my experience, students taking this course of study sometimes came away too harshly skeptical of any attempt to recommend policy intervention, even of a limited kind, in hopes that the people most directly involved would be able, if simply left alone by outsiders, to design their own institutions. This volume is intended to counter that overgeneralization of the Ostroms' warnings about the hubris of social planning, and to bring this line of work back into the mainstream of policy analysis and scholarly research. Later chapters demonstrate that it is indeed possible to use the IAD framework, and related analytical tools, to offer constructive policy advice, provided those making recommendations retain a healthy dose of humility.

In chapter 2, Margaret Polski (a student whose professional career focused on active participation in the policymaking community) and Elinor Ostrom provide a comprehensive overview of how the IAD frame-

work can be used for purposes of policy analysis. Although previously unpublished, this paper has been cited on many occasions, and we are pleased to be able to include it in this volume.

The authors use an especially appealing list of questions to organize their presentation of the IAD framework and its application to policy analysis. These questions help structure an analyst's initial consideration of the policy situation being studied, as each draws attention to particularly important dimensions of consideration. In effect, the authors lead the reader through the components of the IAD framework step by step, and at the completion of this exercise the analyst should have a sound foundation for completing a comprehensive institutional analysis.

At this point, it may be useful to remind ourselves of the utility of an analytical framework, as compared to a causal theory or a formal model. Unlike more detailed analytical tools, there is no way to reduce application of the IAD framework to a recipe or simple set of instructions. Textbooks in statistical analysis, in contrast, lay out straightforward sequences of steps and specific criteria for comparison of alternative models, and anyone following those same steps should end up with exactly the same conclusions. That is not the case here.

Institutional analysis, when done in the Ostrom manner, does not follow an unambiguous path, nor does it offer any all-purpose standard for evaluation. Instead, the IAD framework helps guide a researcher through the long process of fully understanding all relevant aspects of a real-world policy situation, which is, by its very nature, highly complex and thus subject to multiple interpretations and evaluations. But application of this framework is, ultimately, only an initial step in any full analysis. The remaining steps are up to the researcher, and they remain an exercise in creative artisanship and not the routine implementation of specific rules of analysis.

Chapter 3 gives the reader a more in-depth overview of the critical distinctions that analysts should be aware of when they examine each component of the IAD framework in their particular policy situation. This chapter was originally published as a technical appendix to a report to SIDA, the Swedish International Development Agency, by a team of Workshop researchers, led by Elinor Ostrom. An extended selection of excerpts from the substantive portions of this report is included as chapter 9 in this volume, but this appendix was written with a broader audience in mind. (A related version is included in Gibson et al. 2005.) This appendix locates each component of the IAD framework within relevant literatures in policy analyses and the social sciences more generally.

The IAD framework incorporates a rich set of concepts and distinctions that may seem to some observers as a tangle of nearly impenetrable jargon. McGinnis (2011a) provides a glossary meant to make it easier for newcomers to this tradition to understand the terminology used by scholars deeply influenced by the Ostroms; since this terminology continues to be expanded and revised, an updated version is being maintained online (http://mypage.iu.edu/~mcginnis/iad_guide.pdf).

Since both of us have been fortunate to teach the course referred to in chapter 1, we can personally attest that this problem was especially noticeable with the arrival of each year's new cohort of graduate students eager to learn from the Ostroms and their colleagues. Chapter 4 was prepared by one of us (McGinnis) for distribution to members of the Y673 class several years ago, and we have included it here in hopes that it can help clarify the process involved in implementing the mode of institutional analysis exemplified in the many publications of Vincent and Elinor Ostrom.

The specific piece of research selected to illustrate application of this research framework is *Governing the Commons* (1990). Ironically, Elinor Ostrom makes only a passing reference to the IAD framework in this, her best-known and her most highly influential book. She avoided such side discussions in hopes that her presentation would be understandable to a wide audience, and she definitely accomplished that goal. For the purposes of this volume, however, we need to delve more deeply into the conceptual underpinnings of the conclusions for which she is so widely known.

This chapter directs attention to the separable action situations that lie at the heart of Ostrom's analysis of the many cases of community management of common-pool resources covered in that widely read volume. Each of the core action situations of appropriation, maintenance, rule-making, and monitoring is identified, and their interactions examined. By going through this exercise, it becomes easier to understand how Ostrom was able to discern the operation of the eight "design principles" that have proven to be the single most important take-away point from *Governing the Commons.* In effect, these design principles, when present, facilitate the smooth adjustment among, or the coevolution of, these core action situations. Each design principle points to ways in which changes in biophysical conditions, social and cultural attributes, and institutional arrangements adjust to each other, and thus effectively coevolve toward a sustainable balance. This chapter concludes with a series of questions inspired by each of these design principles (from Ostrom 2005, 270–71).

The presentation in chapter 4 draws upon the concept of linked action situations developed elsewhere (McGinnis 2011c). As discussed above,

the concept of networks of adjacent action situations introduced there was intended to inspire later efforts to understand specific policy settings. One example along those lines is included as chapter 7 of this volume.

Part II: Polycentricity in Regional Public Economies

Part II includes three chapters focused on different aspects of policy and governance in US metropolitan areas. The first substantive example, chapter 5, dates back to a time (1977) before the IAD framework had been explicitly formulated. However, the Ostroms' contribution to a conference where policy analysts provided contrasting evaluations of the prospects for metropolitan reform in Detroit draws from exactly the same vein of thought that led, in time, to the IAD framework, *Governing the Commons*, and a Nobel Prize. In terminology, it draws more explicitly on the initial articulation of polycentric governance (V. Ostrom, Tiebout, and Warren 1961; see Cole and McGinnis 2015a). The Ostroms conclude their analysis by reviewing a series of questions concerning the range of options that were then available to Detroit city officials, including ones that they might not have considered otherwise. Given the ever-expanding inventory of policy instruments, contemporary officials have a broader menu of options available to them, but still face the same challenges as expressed here.

In chapter 6, Richard Feiock updates this line of research on metropolitan governance by introducing an Institutional Collective Action (ICA) perspective focused explicitly on the behavior of the formal units of governance in metropolitan areas. It is not exactly the same as the IAD framework, especially since it focuses its attention on the actions of local public administrators. Feiock and his colleagues work very much in the mainstream of public administration scholarship, and this ICA framework is every bit as interdisciplinary in spirit as is the IAD framework. Here the focus lies on understanding the range of institutional arrangements that are available to metropolitan officials confronting long-term problems, ranging from informal policy networks to individual contracts, collaborative councils, and more fully consolidated regional authorities. Each option is best suited for a different set of conditions, and this line of research continues to be very productive (see Feiock and Scholz 2009).

In chapter 7, a team of Workshop affiliated faculty, students, and postdocs demonstrates how the IAD framework, initially developed for application to natural resource governance in primarily underdeveloped regions, can also be used to understand important policy concerns within metropol-

itan areas. They explicitly expand the core action situation in their analysis to more fully explore the nature of the working components within that action situation, and draw specific connections to adjacent action situations in which the available range of choice open to actors is set, and what positions each actor holds, what information they have access to, and how their choices are aggregated into overall policy outcomes. In doing so, they illustrate the usefulness of the network concept first introduced, in an abstract way, by McGinnis (2011c), and yet also demonstrate the limitations of that line of research. Although the complexity revealed by this analytical exercise makes it difficult for them to offer specific policy recommendations, their analysis provides a promising basis for further elaborations. From our perspective as long-term Workshoppers, we find it especially gratifying to see that this team nicely connects the current state of the IAD framework to the core concept of polycentric governance of metropolitan areas that lies at the heart of the Bloomington School of political economy.

Part III: Development and Nested Governance

Part III shifts attention to particular aspects of development policy. In chapter 8, Amy Poteete, also a long-time Workshopper, sets the context for considering questions of natural resources management from the perspectives of different levels, scales, and forms of linkages. Her discussion effectively encourages institutional analysts to open their minds to complex interplay of processes (or action situations) that determine changes in biophysical conditions, institutional arrangements, economic transactions, and social-cultural forces, with these processes operating at divergent speeds in widely disparate geographic scales. This same openness is equally valid for policy analysts working in any policy sector, and for citizens in any society.

Chapter 9 consists of extended excerpts from chapters 1, 4, 5, and 11 of the Ostrom Workshop report to SIDA discussed above. This analysis was inspired by the question of why so few tangible results have thus far been obtained from a long history of economic assistance to many countries throughout the developing world. This report was commissioned by a development agency with a strong reputation for professionalism in the delivery of economic assistance to particular countries with which they developed long-term relationships. SIDA's executives were genuinely puzzled as to why the results of their efforts were so disappointing.

Our selections highlight the theme of ownership and their construct of a development assistance octangle, a multiconnected network of public, private, and community organizations from both the donor and recipient countries. (Much of this material was published, in different form, in Gibson et al. 2005.) We also sought to reinforce our point that many IAD-inspired scholars tend to operate by asking a disciplined series of questions structured by the elements of the IAD framework.

Critics of development policy have long drawn attention to the relatively small amounts of money devoted to development aid, or to the general absence of competitive markets or secure property rights in the recipient countries, or to other missing institutions needed to support prosperous economies and democratic political systems. To this list the Ostrom-led team added the missing ingredient of making sure that the recipients of this aid saw themselves as full partners in these endeavors. In the end, this team of policy analysts drew upon the multifaceted IAD framework to identify the many ways in which the actual practice of development assistance fell short of getting local recipients fully involved in all of the most critical steps of the process, or in IAD-based language, in all of the core action situations ranging from basic operationalization to the details of policy design and to overall constitutional design of the overall process.

Selections from chapters 4 and 5 of the SIDA report demonstrate how these analysts used a series of questions to structure their understanding of the basic relationship between government officials in the donor and recipient countries. These questions cover pretty much the same material as those in chapters 2, 4, and 5 of this volume, focused this time on the nature of the action situation defined by ongoing negotiations between these two governments, and the lessons that might be drawn from their analysis.

This selection concludes with one of the general lessons they draw in the final chapter on this report. Although SIDA officials had long emphasized the importance of nurturing a sense of local ownership among recipients of their aid, the results remained disappointing. The authors demonstrate that this notion of ownership needs to be extended to cover the full range of core action situations, ranging over the entire spectrum from first identifying user demands to the final dissolution of a project that has run its course.

Chapter 10 examines a relatively new initiative in international environmental policy that has also fallen short of fully engaging local recipients in all program stages. Here the primary actors are United Nations agencies and community-based forestry management organizations, but

a remarkably similar range of problems emerge in this area as well. It remains to be seen how this particular policy initiative will work out in practice, and this preliminary analysis highlights a wide range of potential problems that future analysts should keep in mind.

Part IV: Integrating Multiple Actors, Interests, and Perspectives

The two chapters in Part IV introduce additional complications that must, in some way, be better incorporated into policy analyses based on the IAD template. In chapter 11, Floriane Clement, a scholar with only a marginal connection to the Ostrom Workshop, demonstrates why it is important to integrate questions of power into these analyses. Other scholars closely tied to the Ostroms, notably Agrawal (2003) and Epstein et al. (2014) have pointed to the unfortunate tendency of analysts working within this tradition to focus on the problem-solving aspect of policy problems and overlook, or at least downplay, the extent to which policy outcomes are driven by who has the most power to shape policy.

Clement does an excellent job of adding considerations of power and discourse analysis into the IAD framework in a natural manner. Since power is often exerted through subtle means of conceptualizations of policy alternatives, the incorporation of discourse analysis is especially welcome. In most works using the IAD framework, the attributes of the community are taken as given, although they may be changed, over long periods of time, by the experiences of that community as they govern themselves (see V. Ostrom, 1997). Clement puts this factor front and center, and thus makes an important contribution to this line of analysis.

In chapter 12, a long-term leader among Ostrom Workshop scholars, Eduardo Brondizio, and his colleague Esteban Ruiz-Ballesteros demonstrate how regional conditions and cross-level connections involving both the ecological and governmental aspects of resource management can be more explicitly integrated into detailed policy analyses based on the IAD framework. The resulting framework is quite complex, but this only goes to show how much the IAD framework remains a work in progress, one that is continually being refined and updated by those researchers and policy analysts who find it a useful tool to organize their own analyses, and to more clearly convey their findings to others. The process of refining and updating is closely associated with the Ostroms' commitment to empirically informed and policy-relevant political theory.

Part V: Foundations for Future Extensions

This volume demonstrates the continuing elaboration of the IAD-based mode of policy analysis or point towards continuing weaknesses that remain to be addressed in subsequent elaborations. In Part V, we include two papers in which Vincent and Elinor Ostrom separately offered words of encouragement and guidance for those seeking to further improve upon the analytical foundations they provided for us.

Chapter 13 remained unpublished until its inclusion in part one of Barbara Allen's two-volume collection of Vincent Ostrom's work (Ostrom 2011), and we thought it was well worth reproducing here. Originally written in 1982, when the IAD framework was first being formulated, this paper highlights the critical importance of evaluating the performance of public officials in the implementation of public policy. That theme was then emerging in public administration in a big way because of the new public management and decentralization and devolution movements, but in this paper Vincent demonstrates a broader concern with the evaluation of all of the many efforts that go into the implementation of policies, including those by community members and private organizations. Implementation is the process through which abstract policies have tangible impacts on the real world. It is often seen as primarily a technical exercise in the application of policy directives, but in practice this remains a very interactive, and an intrinsically political, process. Remarkably, the word "implementation" has rarely been used by Ostrom Workshop scholars, and we hope this chapter inspires future IAD-inspired researchers to remedy this unfortunate oversight.

In chapter 14, we give Elinor Ostrom the final word, from her contribution to a collection of autobiographical reflections by eminent economists. She devotes most of her attention to the early years of her career, before the IAD framework began to take shape in the 1980s. She acknowledges the formational influences of two scholars, Vincent Ostrom and Herbert Simon. From her husband and career-long collaborator, she drew the foundational concept of polycentricity (V. Ostrom, Tiebout, and Warren 1961), and from Herbert Simon (thus far the only other PhD in political science to have been awarded the Nobel Memorial Prize in Economic Sciences), Elinor Ostrom came to appreciate the ubiquity of bounded rationality in human behavior. Amazingly, individuals with significantly constrained cognitive abilities can nonetheless bind themselves together to devise and operate organizations and institutional configurations that enable them to effectively cope with situations of seemingly overwhelming complexity (see Simon 1972, 1981).

Elinor Ostrom concludes this essay by pointing to the fundamental similarity of the challenges facing public officials, policy analysts, and ordinary citizens—all of whom must decide the best they can in the presence of bewildering complexity, incomplete information, limited cognitive capabilities, and conflicting normative and strategic considerations. She leaves us with a powerful expression of her remarkably resilient yet realistic and restrained sense of optimism, secure in her knowledge that communities of fallible yet capable individuals can find innovative ways to jointly accomplish both "the long-term sustainability of common-pool resources and the efficient provision of public goods," despite the daunting complexity of those tasks.

The IAD framework was built to serve as a foundation for the kinds of institutional analysis needed to understand and nurture the diverse forms of creative public entrepreneurship that are so critical to the long-term sustainability of democratic self-governance (V. Ostrom 1997). This connection was nicely summarized by Elinor Ostrom in *Understanding Institutional Diversity* (2005, 132–33):

> As scholars and policy analysts, we need to learn the artisanship of working with rules so as to improve how situations operate over time. Human beings are neither all-knowing saints nor devilish knaves. The institutions they grow up in—families, schools, playgrounds, neighborhoods—differentially reward or punish them over time so that intrinsic and extrinsic motivations are learned and developed over time. The situations they find themselves facing as adults in the workplace and their community also affect which norms they use and the outcomes they reach. When individuals learn the artisanship of crafting rules, they can experiment and learn to create more productive outcomes (as well as participants) over time. Learning to craft rules that attract and encourage individuals who share norms of reciprocity and trustworthiness, or who learn them over time, is a fundamental skill needed in all democratic societies.

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