

# Designing Discourse-Based Approaches for Improving Public Decision Making

A Working Paper in Process

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## **1. Introduction: Need/Motivation**

The broad field of participatory approaches to natural resource management has been a hugely active area of scholarship over the past 20 years. There is no comprehensive bibliography of this field, but the number of scholarly articles is surely in the thousands. This frenetic scholarship has been distributed across many different fields, appears in many different literatures, and is drawn from experiences from virtually every region of the globe. In addition, this socio-political phenomenon that has sprung up largely outside of academic settings, and research is struggling to keep pace and document what is occurring in practice. In our collective attempts to understand the emergence of participatory methods, it appears that three factors have significantly inhibiting the scholarship: lack of standardized terminology, a predominance of case study research, and an overly empirical/positivistic epistemology.

At least part of the difficulty in creating a somewhat unified scholarship regarding participatory methods emerges from the lack of a standard terminology. Advisory groups, advocacy coalitions, appreciative inquiry, charettes, citizen involvement, citizen juries, civic science, consensus conferences, collaborative learning, co-management, community-based collaboration, deliberative decisionmaking, facilitated dialogue, negotiated rule making, partnerships, platforms, pluralism, principled negotiation, public issues education, public participation, search conferences, social learning, strong democracy, and watershed councils is a quick (and incomplete) list of some of the terms commonly used. It is a challenge to learn what each of these terms means and doubly difficult to distinguish among them. Part of this terminological proliferation has arisen because practices that seemingly appear quite similar in practice may well be referred to by different names in different academic traditions. It is also worth noting that there is considerable international variation in this terminology as well. The notion of “collaborative” is hugely popular in the North American literature, but much less common in the European scholarship. It seems that the connotation of collaboration as providing assistance to the enemy in World War II is still sufficiently negative in Europe that the term is unlikely to get much traction there in the foreseeable future. By the same token, “participatory democracy” is found throughout both the US and European literature. But that phrase is likely to be problematic in the People’s Republic of China and parts of sub-Saharan Africa where both the norms and rhetoric of governance are notably different.

The second plateau that seems to characterize the scholarship around participatory methods is a reliance on case study methods. The “lessons learned” from a single experience, or maybe a small set of cases, was certainly an appropriate phase for this field of research in its early days. But inasmuch as we are collectively entering our third decade as students of these processes, seemingly we would have learned our lessons and be able to organize them more systematically.

One major way in which people are attempting to move beyond case study research is do conduct meta-analyses or cross-sectional research and draw what might be referred to as the secrets of success. At the risk of singling out one paper unfairly, Pagdee et al (2006) embodies this tradition. The authors started with a set of 124 articles from the published literature, applied a set of selection criteria to winnow their dataset down to 31 articles, and conducted content analysis to determine which factors were associated with successful processes. While this is clearly an attempt to move beyond the limitations of the single case study, this research methodology nevertheless paints the discipline into an epistemological corner. Using the terminology of Fischer (2003), this style of scholarship flows directly out of a neopositivist

epistemological tradition that has characterized much of public policy analysis in recent decades. Neopositivist epistemology is based on the assumption of replicated cause-and-effect relationships that play out in similar ways in multiple locales.

Neopositivism undergirds the contemporary pursuit in the social sciences of a body of knowledge empirically organized as replicable causal generalizations (Fay 1975). Most easily identified as the principles spelled out, both explicitly and tacitly, in the research methodology textbook, this ‘empiricist’ orientation emphasizes empirical research designs, the use of sampling techniques and data gathering procedures, and quantitative measurement of outcomes, and the development of causal models with predictive power (Miller 1991; Bobrow and Dryzek 1987). (Fischer 2003, 119-120.)

The implicit promise in the ‘secrets of success’ literature is that if future processes emulate the secrets discerned from past processes, they will also succeed. Buying into that guarantee is perilous because each effort in participatory natural resource management is a unique constellation of features, and it may well be that the prospects for success are higher in some cases—particularly highly unique cases—by intentionally departing away from the typical approaches. It is arguably hubris to assume that we can identify the correct set of features that should be replicated across public land ranchers in Nevada, Inuit bird hunters in Greenland, and canal users in Ho Chi Minh City.

With such a bleak and critical introduction, what can possibly be the goal of this paper? It is intended to present a conceptual framework for thinking about participatory processes in natural resource management, and thereby address at least in part the concerns raised above. The framework is referred to as the Discourse Based Approach Design (DBA-Design) Framework, and this is its initial presentation in the peer-reviewed literature. It was the organizing structure for an advanced graduate course in the Sustainable Forest and Nature Management Programme of the European Union’s Erasmus Mundus Initiative offered at the University of Copenhagen in the spring of 2008. The various purposes of the DBA-Design Framework are to:

- help people organize their thinking about new cases or seemingly disparate cases;
- help make cases more comparable by providing a terminology;
- provide an analytic lens that moves scholarship forward; and
- support analysis and design.

Broadly construed, the objective of the framework is to serve as an organizing metanarrative with global applicability. It is not a predictive model because it does not purport to predict what factors are likely to be most significant in any particular case. But it does offer an intellectual structure that provides a point of departure for beginning to ask questions about the features of a decision situation, and potentially begin to consider how one might design a communicative process that can contribute constructively to the situation. It is also intended to be as applicable in Australia as in Alaska.

## **2. Defining Discourse**

The Discourse-Based Approach Design Framework uses the term discourse in two different ways. First, it employs discourse as a broad and encompassing term that includes the panoply of methods used to promote communication and inclusive decisionmaking. The use of

Discourse-Based Approach (DBA) as a catch-all term to cover the range of methods used in the natural resource arena began with Daniels and Cheng (2004). The long list of terms and concepts provided in the introduction would all be discourse based approaches. In broad measure, discourse refers to the nature or quality of processes that are richly communicative and proceed through three phases: dialogue, deliberation and decisions. Discourse focuses more on the nature of the interaction than on specific techniques or formats for achieving that interaction. It is much more about the emergence of shared norms of interaction and creative innovation than it is conformity to administratively-defined rules of participation.

The second use of discourse in the DBA-Design Framework is much more theoretical, and draws upon the thinking of Habermas and Foucault, as applied to public policy issues by Fischer (2003). Fischer makes the same critique of conventional public policy science as was leveled against Pagdee et al. (200x) in the introduction: that it predominantly employs a neopositivist perspective that seeks to find the unifying principles of social behavior/policy formation through reductionist empirical science. His contention is that fifty years of neopositivist inquiry has been essentially fruitless. He proposes that it is more useful to think about policy formation as a process of social construction of shared meaning through discursive processes. If policy controversies are viewed as competitions between alternative discourses, Fischer contends that we can understand their outcomes far more readily and richly.

It is here that the constructionist view helps us see that in such policy debates it is often the deeper social and cultural factors, rather than the 'facts' of the arguments, that play a decisive role in the citizens' assessment of the competitive views. By drawing our attention to the socio-cultural contexts that underlie the citizen-expert relationship, the constructionist approach shows how citizens interpret the 'objective' assessments of professional experts with the context of their own normative cultural experiences and the social dependencies inherent to them. (129)

Thus, underlying a discourse-analytic approach is an emphasis on interpretive analysis. The complexity of the problem, the uncertainty of the available data, the absence of other data, the different social contexts in which it takes place, as well as competing rhetorics, make clear that the task of explaining environmental politics and policy will remain a task for interpretation. An empirical, predictive causal theory is not one of the possibilities...p. 114

Discourse is therefore both a verb and a noun. It is a verb when it is the process of engaging in meaningful discussion about competing frames, values, meaning, alternatives, and consequences. But in the language of the communication theorists such as Foucault (1984), one should also regard the resulting decision or structure as a being a discourse: a socially constructed text that reveals the values and beliefs that gave rise to it.

Fischer presents a contrast between a neopositivist/empiricist/rational view of policy formation with a discursive/social constructionist paradigm. His contention is that a social constructionist viewpoint would focus more on the ways that competing worldviews and value sets jockey for position in the policy process, rather than on viewing policy formation as a rigorously analytical process wherein objective data is used to develop policies that provide the greatest good for the greatest number. The goal of discursive policy analysis is to identify resilient storylines and shared narratives rather than objective facts. And while his 2003 book

makes a compelling case for a discursive model of politics and policy formation, it leaves one key question largely unanswered: If policy is the result of discourse, could we improve the policy if we improved the discourse? Stated another way, what kinds of discourse designs improve policy formation? This is therefore the springboard for the development of the DBA-Design Framework—to improve policy formation through explicit efforts to deepen and enrich the discourse that gives rise to it. The countless grassroots efforts in participatory natural resource management are trying to engage in precisely that improved discourse, although they are surely not burdened by wondering what Foucault would do.

This emphasis on discourse as the foundation for designing participatory approaches to natural resource management has several advantages. The most notable is that it makes no presumption about the presence of conflict. Some terminologies (“conflict resolution” being the notable example) seem to become relevant only after behaviors have become escalated and polarized, which may be far too late. But a discourse paradigm can accommodate both a pre-conflict strategy and a conflict management strategy. As such, the traditional agency-centric public participation approach can be understood and critiqued using a discourse-based lens, even though it does not typically use conflict management techniques. A second advantage of a discourse-based approach is that it moves away from being rhetorically anchored in a specific outcome or format/methodology. Terms like “consensus building” mean that the goal is one specific type of agreement. Other terms, like collaboration, charettes, and citizen juries are all specific types of participant interaction, which seem to put the emphasis on a tactic, rather than on the underlying communicative interaction being encouraged. Discourse can build consensus, but it may also identify those issues on which consensus is not possible. By the same token, discourse could variously involve the use of any of the tactics listed above. But the key is that they would be employed if it was apparent that they encouraged the discourse, not because the terminology being used made them the default or normative expectation.

### **3. The Framework in Brief**

Simply stated, the DBA-Design framework is a cognitive structure that aids in managing the intellectual complexity of designing participatory approaches to natural resource decision making. It can be visualized as a matrix consisting of three rows and six columns (see Figure 1). It is a fundamentally static and descriptive representation of features that a comprehensive DBA design effort must variously attempt to manage, accommodate, and/or respond to.

**Figure 1: The Discourse-based Approach (DBA) Design Framework**

	Culture	Institutions	Power/ Capacity	Incentives	Cognition	P-3A
Macro						
Meso						
Micro						

### 3.1 The layers

The rows in the DBA-Design Framework refer to scales of social aggregation. The Micro layer is the only scale with an unambiguous definition—it is the individual person. Meso, or middle, scale is 2 or more people. More specifically, it is the level at which the process being designed is intended to occur. This scale must be meaningful in terms of the biological and social systems at issue (often the community or watershed). It is possible for a DBA to be too large to be relevant to potential participants and thereby undermine its effectiveness (Tony's diss), and certainly we can imagine policy processes that are not undertaken at a meaningful biological scale (e.g., trying to manage an ecologic process on a jurisdiction-by-jurisdiction level even though the process at issue greatly transcends those jurisdictions.) The macro scale is defined as everything above the meso scale. It is the external social and political structures and forces that establish the operating context for efforts to engage people in the discourse process occurring at the meso scale.

### 3.2 The 6 columns

Each column in the DBA-Design Framework refers to a major factor that may be a significant consideration in the understanding of the operating environment in which a discursive process would have to occur. The universality of the DBA-Design Framework emerges largely from these six factors, their breadth, and the interaction among them. There are no a priori assumptions about how these factors would play out in any given situation; that is why the Framework makes no claim to be a predictive model. But it serves as an organizing metanarrative because it assumes that all six will in fact play some role in the eventual outcome.

**Culture** is the left-most column in the DBA-Design Framework. The conceptualization of culture used in the Framework would be recognizable to most social scientists working on the topic; it is shared learned behaviors and meanings. Internally, culture is visible as values, beliefs, attitudes, perceptions, morals, etc. External manifestations of culture include roles, structures, rituals, etc. (Marsella, 2005). The perspective on culture that is the most useful in terms of DBA

design is perhaps that of Hofstede (2001) and his widely used conceptualization of cultural difference across five dimensions: power distance, uncertainty avoidance, individualism v. collectivism, masculinity v. femininity; and long-term v. short-term orientation. Each of these has relevance to the design of DBA; the kinds of egalitarian/level-playing-field activities that might work well in the US or Scandinavia would likely be less successful in India where extreme power distance is the legacy of the caste system. Bluntly stated, any effort at designing a participatory decision model that ignores culture has limited prospects for success.

An important way in which the DBA-Design Framework goes beyond Hofstede is that his research uses nationality as a proxy for culture. The DBA-Design framework uses a much more nuanced definition that can tease out multiple cultures within a nation. These distinct cultures might be based on profession, place of residence, ethnicity, religion, rural v. urban, etc. It is often the subtle differences in values between seemingly similar groups that are the most significant in shaping the outcome of discourse. The recent collection on negotiation and culture edited by Gelfand and Brett (2004) is also an important source of insights on how cultural differences create distinctly different scripts of shared expectations on how a social interaction ought to play out.

**Institutions** is the column immediately adjacent to culture in the DBA-Design Framework. Again, institutions are defined in a conventional manner: they are the structures, organizations and ritualized patterns of behavior (i.e., rules) that variously organize our social lives and also regulate interactions. Institutions can include organizations like the Church or the University, but they are equally constituted through the Lutheran Women's Tuesday lunch group or the pattern of granting teaching assistantships to male students more frequently than to female students. The writing of Elinor Ostrom on institutional analysis and development is particularly useful in the framework because it draws links between institutional structures and patterns of resource allocation and use (See variously Ostrom 1998, Ostrom 2005, Ostrom 2007).

**Power/capacity** is the relative advantages and abilities that the parties possess. (Section under development.)

**P-3A** is the right-most column in the Framework and stands for **Personality, Affect, Attitudes, and Attributions**. As these categories indicate, this is the most explicitly psychological of all of the factors of the Framework. Personality is one's long term disposition: happy, curious, timid, extroverted, trusting, etc. Affect is the current emotional state (also referred to as mood). Personality and affect are closely related, but to the extent that personality is analogous to climate, so affect is to weather. Affect can be impacted by very recent events (did you get a speeding ticket on the way to tonight's meeting?) and behavioral research both in social dilemma problems and negotiation has shown both personality (Weber and Messick, 2004) and affect (Barry, Fulmer, and van Kleff 2004) to be correlated with behavior and outcomes. Attitudes is a broad term that refers to the values one assigns to things (wilderness is good, litter is bad, etc.). Attributions are similar to attitudes, but they are values that one assigns either to people (he is trustworthy) or events (she wrecked my car). Taken together, P-3A is a bundle of psychological conditions and processes that each participant brings into the process. The relevance of these psychological variables is that in every DBA there are key individuals; they may be the village headman, or a Forest Supervisor, or the chair of the local environmental NGO. Because of their influential roles in their communities, their behavior relative to a DBA process can be hugely

influential in the outcome, and their behaviors emerge to a considerable extent from their personalities, affect, attitudes and attributions.

**Cognition** is the column next to P-3A; this refers to the psychological term for information processing and decision making. There are three specific realms of cognition that are particularly important to the DBA-Design framework: cognitive biases, social cognition, and learning. There is a large literature dating back to Kahneman and Tversky (1972) that shows that people do not process information in the rational manner that the economists and game theorists assume. Behavioral negotiations scholars have shown that these biases affect our decision making in general (Bazerman ) and negotiation tasks in particular (Thompson, Neale, and Sinaceur, 2004). Social cognition is the process of making cognitive judgments about social events and interactions, as well as the impact of social settings and stimuli on cognitive performance. A critical aspect of social cognition as it related to DBA processes is the widely studied in-group/out-group effect. To the extent that people cognitively frame a situation as an us-versus-them problem, the likelihood of fixed pie/competitive negotiation behaviors increases (Bazerman and Neale 1983; Thompson and Hastie 1990). The third component of cognition is learning. Any DBA-Design effort must actively seek to manage the cognitive load on the participants, but also realize that different stakeholder groups may need to learn different things about the situation in order for the process to succeed. Some of the learning may be substantive (about the issues), some may be procedural (about the set of available process options), yet other learning may be relational (about the other participants and their values). Perhaps the most extensive incorporation of a learning approach into natural resource decision making in the US literature is Daniels and Walker (2001), and the Australian book by Keen, Brown, and Dyball (2005) covers much the same issues; and Steyaert et al. (2007) provides an entre into the European social learning literature.

**Incentives** are represented by the column that lays just to the left of the cognition column. Incentives are the payoffs (or penalties) created by the process. Some of the incentives relate to outcomes from a process, yet other incentives relate to behavioral issues. The outcome incentives are things to be gained or lost in the process; they constitute the reasons for becoming involved in the process. The behavioral incentives are process-related features that may encourage certain behaviors by the potential participants in the process. A great deal of the traditional negotiation research focuses on the outcome incentives, by invoking concepts such as BATNA (Best Alternative to a Negotiated Agreement) analysis (Fisher and Ury, 1991) and the game theoretic research that was pioneered by Walton and McKersie (1965) and the motivations that people bring to it. Incentives can best be understood as a blend of game theoretical predictions and internal motivations.

It is also important to note that the incentives are not created wholly by the process design; there is also an important interaction effect between the process attributes and the motivations that arise within the individual participants in the process.

### 3.3 Key features of the framework

In the process of developing, refining, and applying the DBA-Design Framework, several features of the Framework have turned out to be more important and useful than they perhaps appeared to be at the outset. First, the relative location of the columns is critical to the framework's function. Each of the columns is placed adjacent to others in a theoretically

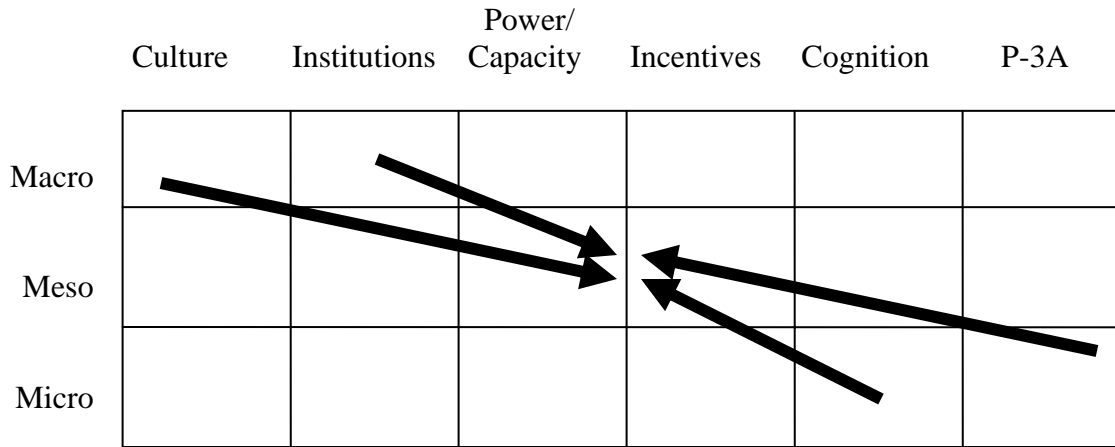
intentional fashion. The adjacency of culture and institutions illustrates this intentionality quite clearly. In many ways, the difference between culture and institutions is quite blurry. Even though there are cultural features that are not explicitly institutional, it is quite hard to conceptualize institutional patterns that do not have a significant cultural foundation. The social power and relevance that institutions possess flow out of their cultural relevance, and by the same token, much of the power that culture manifests is channeled through various institutions. So as we think about culture being reflected through governance norms and agency/regulatory processes, placing institutions between culture and the rest of the framework reflects the mediating role that institutions perform. In many ways, institutions are the codified and habituated embodiment of more abstract cultural values and constructs.

By the same token, the cognition column plays an important role between the incentives and P-3A columns. The experimental literature on negotiation/social dilemmas problems has clearly shown that personality features are significant determinants of behaviors that depart in systematic ways from the incentives that are present in a situation (e.g., an experiment that clearly rewards cheating behaviors will show that a strong positive relationship between people will reduce the frequency of cheating

Second, the Framework has evolved to have two distinct halves, with the left side being more contextual and the right side being more individual. This construction was informed by and also extends the literature review/theory paper by Li, Tost, and Wade-Benzoni (2007) that advocates a dual approach to negotiation research that explicitly considers negotiator behavior as emerging from the dynamic interaction between individual factors and the cultural/organizational context. Inasmuch as the dynamic between the individual and the cultural/institutional context is of paramount importance, the key interface in the diagram is the boundary between capacity/power and incentives. That is the margin between the columns that are largely (but not wholly) contextual and those that are largely (but not wholly) individual.

The dynamic nature of the DBA Design Framework begins to be visible in Figure 2, which shows the dominant influence flows in the diagram. The cultural/institutional influences emerge primarily from the macro level, while the cognition and P-3A influences arise primarily in the micro level. These two sets of forces converge in the meso level at the interface between capacity/power and incentives. So a suite of social/contextual factors come cascading into a process design from the macro level, and another set of individually manifest factors comes bubbling up from the micro level. In this conceptualization, the process designer's task is to explicitly and simultaneously balance contextual considerations with individual idiosyncrasies. The integration of these disparate factors offers the potential for a more realistic and robust process than would otherwise be the case.

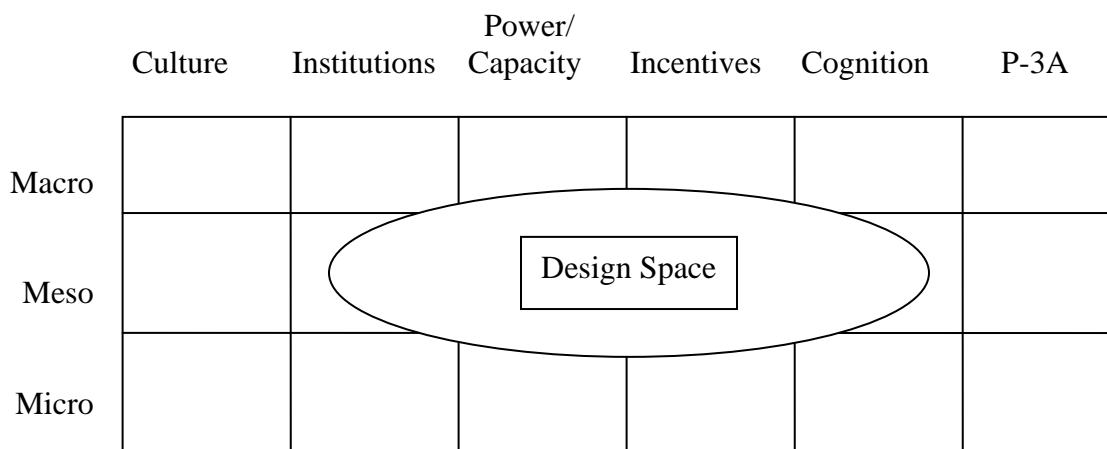
**Figure 2: Dominant influence flows in the (DBA) Design Framework**



In this sense, the central portion of the diagram (meso capacity/power and incentives) can loosely be understood as the *design space* (Figure 3). That is the region of the Framework within which the process design has the most direct control. A discourse process consequently accomplishes several tasks:

- DBA mobilizes resources and creates collective capacity
- DBA creates institution
- DBA affects cognition

**Figure 3: The “Design Space” in the DBA-Design Framework**

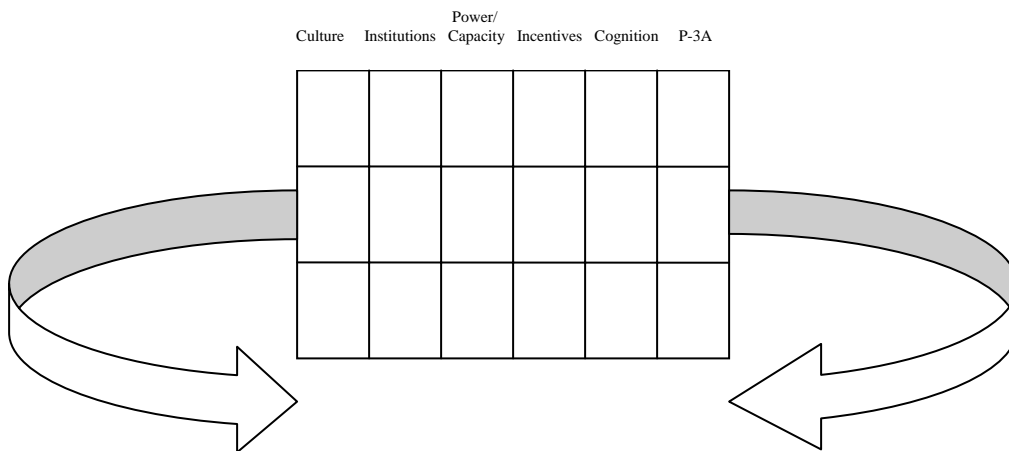


Discourse-based decision processes have the potential to aggregate resources that are held by various stakeholders into a meaning collective capacity. One stakeholder might own critical private land, another might have technical expertise, another might have access to volunteer effort, and yet another might have regulatory authority. Working independently, none has the critical mass of resources needed to move an agenda forward (even though all might agree with the logic of doing so), but their collective capacity might well be sufficient if they are able to work collectively. By the same token, as DBA becomes a normal way to make decisions about natural resources, it becomes part of the institutional landscape. Discourse can thereby become part of the institutional column and thus shape how yet other institutions operate. And finally, DBA has the potential to affect the cognition of the participants. To the extent that part of the challenge in natural resource decision making is in simultaneously managing the technical complexity of the situation as well as the penchant for controversy (Daniels and Walker, 2001), DBA offer a means of managing the cognitive load that the participants face. It allows the stakeholders to learn their way to improved decisions, and goes well beyond merely providing a forum that allows for distributive bargaining across pre-determined preferences and alternatives. It also allows for reframing the situation away from fixed pie cognitive frames that often arise in public policy decision processes.

A final feature of the Framework relates to the interaction between the culture and P-3A columns. Presumably because they are shown as being at the extreme ends of the framework

they are viewed as being markedly different concepts in the Framework. But if we loosely define culture as being values, beliefs, and behaviors that emerge at the collective level, and P-3A as values, beliefs, and behaviors that emerge at the individual level, then the two columns represent concepts that are far more similar than they are different. In fact, it is possible to think about wrapping the Framework into a loop so that the culture and P-3A columns are adjacent to each other (Figure 4). This mental image reinforces the realization that each individual is inevitably the product of their cultural context, and that extracting their values and beliefs from that social milieu is a fruitless endeavor.

**Figure 4: Linking Cultural and Individual Factors in the DBA-Design Framework**



### 3.4 Communication and the Framework

A cursory glance at the DBA Design Framework as shown in these various figures reveals that communication appears nowhere in the diagram. Lest our communication colleagues rise up in indignant rage, communication does not appear in the framework diagram because it is so central to the process of discourse-based policy formation that it cannot adequately be represented by a single cell or row or column in the diagram. The very notion of discourse as it links back to the ideas of Foucault and Habermas is inherently and inescapably grounded in a communicative world view. The discourse-based view of the policy process as articulated in Fischer (2003) is predicated on social construction of policy narratives, which is an empty concept without communication.

Effective communication is therefore both the *raison d'être* and the *sine qua non* of a discourse-based model of policy. Improved shared understanding of complex situations is an emergent property of these processes, something that is not possible without rich communicative interaction. Communication can occur at all three scales of the process; it can be person-to-person communication that occurs primarily at the micro level, it can be explicitly designed group activities that occur at the meso level, and it can be mass communication/persuasion activities that occur at the macro level.

#### **4. Applying the DBA Framework**

The motivation for developing the framework was to provide an integrative structure within which to think systematically about the huge array of on-the-ground efforts to improve natural resource governance and also advance our ability to think rigorously about these efforts at the theoretical level. But the Framework also offers assistance to practitioners who are trying to facilitate discourse-based processes. It provides that assistance by enhancing the ability to conduct assessments and design processes that respond to those assessments.

A widely shared notion in the public policy negotiation/facilitation field is that assessing a conflict situation to determine the potential for successful resolution is a critical early phase of any intervention (e.g., Carpenter and Kennedy (1991), Lewicki et al (2006)). But knowing what to assess and how to use the information gleaned through an assessment is not so universally agreed upon. Part of the art of conflict assessment is to embrace the unique attributes of each situation (and they are all individuals unto themselves) while at the same time linking back to some organizing principles that offer some hope of putting some meaning and structure to one's understanding of the situation.

##### *4.1 Assessment*

The DBA-Design framework is valuable to someone charged with developing a participatory approach not because it has all the answers, but because it may help identify some of the critical questions. The crucial interface in the Framework is between power/capacity and incentives. A successful discourse approach must recognize the power that people have been granted through existing institutions—because they are a village elder, because they have private property rights, because they have authority granted them in their role as an agency employee, etc. A DBA must create incentives that are reasonably compatible with the existing power structures; if it does not, local actors may either choose to boycott it or might actively try to undermine it.

It is important to bear in mind that each situation where one is designing a DBA is a unique constellation of factors creating both opportunities and constraints. Being situationally responsive and highly in-tune with the nuances of each new setting is part of the art. But there is often so much complexity in a new setting that it is hard to know how to get a handle on it, or where to start. By breaking a situation into discrete factors, some contextual and others more individualistic, the designer can begin to systematically deconstruct it into manageable components, while never losing sight of the interconnectedness in the system.

##### *4.2 Design*

It is entirely possible that a thorough assessment can reveal that a discourse-based approach is neither feasible nor prudent. That basic go/no-go decision is one of the core purposes of doing assessments. But assuming that the assessment has identified sufficient potential for a discourse-based approach to make a substantial difference, the next task is developing a design. The process would presumably reflect the issues identified during the assessment. To some extent, the results of the assessment could be lumped into two broad categories: factors you control and factors you consider. These can also be thought of as design variables versus constraints.

Given that each situation is a unique constellation of factors, each process design needs to be a similarly unique set of responses.

### *4.3 Results of preliminary application of the DBA Framework*

The purpose of this framework is to support design, so the test of its value is its ability to do so. As noted in the introduction, the DBA-Design Framework was developed as the organizing structure for a graduate class at the University of Copenhagen. The first field applications of the Framework were therefore the class projects that the students were required to complete. The students in this program come from across the world, and the cases to which they applied the DBA-Design Framework were similarly diverse. Without exception, the students were able to develop coherent and feasible DBA designs that appeared to be quite situationally responsive and thoughtful. Three of these cases are discussed in brief below.

#### **Bird harvesting-Greenland**

The indigenous people of Greenland have traditionally conducted subsistence harvesting of ocean going birds. But as populations and technology have increased, there is a growing possibility that local populations of these shorebirds can be extirpated. One species of particular concern is the Thick-billed Murre. A project was undertaken to design a discourse-based approach to creating a voluntary willingness on the part of the local hunters to restrict their harvest to sustainable levels.

Conventional approaches to hunting management are unlikely to constrain harvesting of shorebirds by the Greenlandic hunters. First, the typical approach of administratively established bag limits have low likelihood of success because the land area is simply too vast and remote to permit meaningful enforcement. So if the hunters do not choose voluntarily to restrict their own harvest, it is unlikely to happen. Second, the number of murre nesting colonies in the study area is only half of historic levels. The murre is not a prolific reproducer; it does not reach sexual maturity until age five (and only about 20% reach this age), and the typical clutch is but a single chick.

The cultural context makes a discourse based approach more appealing than the traditional top-down decision making model. There is a significant distrust of external expert biologists as a legacy of processes involving whaling. In addition, the communal structure of the native settlements grants greater legitimacy to internally generated decisions than externally imposed ones.

The DBA approach proposed in this case study involves focusing on the children as a major component in the process. The basic strategy is to hold a murre hunting celebration to emphasize how important murre hunting is to the local people, and by implication, how important it is to maintain sustainable populations of murre so that hunting can continue. A cornerstone of the murre hunting celebration is a play about the importance of the murre, written and performed by the local children. The play is an important communication strategy because literacy levels are quite low, and oral traditions quite strong. In addition a hunter from another village—one that has already lost its murre—will be invited to speak. It is far more likely that the local hunters will believe that the murre can be hunted out if they hear it from a fellow native hunter. The goal is not to convince them that they should not be hunting murre, but rather that they should voluntarily show restraint and also shift their harvesting away from the older breeding age birds toward the juvenile birds. Hunting is an integral part of both individual and collective identities in this situation, and attempting to contradict it would be both futile and culturally disrespectful.

The key to this approach is its complete avoidance of the more common aspects of agency decision making—the public hearing, the experts, the administratively rendered decision, etc. Instead, the Greenlandic people are encouraged to participate in a culturally located and informed discourse about what murre hunting means to them, what future generations would lose if the birds are extirpated, and perhaps develop some new norms of harvesting behavior that emphasize voluntary restraint.

**Key learning tasks for the different stakeholders and activities to promote that learning.**

Stakeholders	Key Learning	Activity that promotes Learning
Children	Understanding relations between culture and nature.	<ul style="list-style-type: none"> <li>• Fieldtrip</li> <li>• School play</li> <li>• Workshop week</li> </ul>
Hunters	The bird population is a limited resource (understanding own behavior and belief). Understand relations between culture and nature.	<ul style="list-style-type: none"> <li>• Hearing a hunter from another settlement with experiences of local extinction of the bird</li> <li>• Seeing the school play</li> <li>• Information sharing with the biologists and the managers</li> </ul>
	It is more favourable to shoot younger birds (understanding own behavior and belief). Understand relations between culture and nature.	<ul style="list-style-type: none"> <li>• Hearing a hunter from another settlement with experiences of local extinction of the bird</li> <li>• Seeing the school play</li> <li>• Information sharing with the biologists and the managers</li> </ul>
	Going from “ <i>us versus them</i> ” to “ <i>us versus the problem</i> ”. Trust in the managers and biologists. It is not an “ <i>us versus you</i> ” situation.	<ul style="list-style-type: none"> <li>• Joint field trip – sharing of information (social, cultural, economical, ecological etc.) on the field trip</li> <li>• Together with the biologists and managers at later meetings making joint ground rules for communication and behavior (listening, talking...) at these meetings</li> <li>• Mix the parties in subgroups talking about concerns and taking perspective</li> </ul>
Public managers	That social and economic elements are equally important as the ecological. Understanding the tradition and identity of the hunters. This is also meaning going from “ <i>us versus them</i> ” to “ <i>us versus the problem</i> ”. Listening and understanding and trust the hunters and build trust.	<ul style="list-style-type: none"> <li>• Joint field trip – sharing of information (social, cultural, economical, ecological etc.) on the field trip</li> <li>• Together with the biologists and managers at later meetings making joint ground rules for communication and behavior (listening, talking...) at these meetings</li> <li>• Mix the parties in subgroups talking about concerns and taking perspective</li> </ul>
	To give up some power insuring co-management.	<ul style="list-style-type: none"> <li>• Say that the present situation does not work out as intended and it does not seem that new legislation can change the situation. “We need your help”. “You are the actual managers”</li> </ul>
Biologists	That social and economic elements are equally important as the ecological. Understanding the tradition and identity of the hunters. This is also meaning going from “ <i>us versus them</i> ” to “ <i>us versus the problem</i> ”. Listening and understanding and trust the hunters and build trust.	<ul style="list-style-type: none"> <li>• Joint field trip – sharing of information (social, cultural, economical, ecological etc.) on the field trip</li> <li>• Together with the biologists and managers at later meetings making joint ground rules for communication and behavior (listening, talking...) at these meetings</li> <li>• Mix the parties in subgroups talking about concerns and taking perspective</li> </ul>
	To give up some power insuring co-management.	<ul style="list-style-type: none"> <li>• Support the managers saying that the present situation does not work out as intended and it does not seem that new legislation can change the situation</li> </ul>

**Village relocation-Sarawak**

Alit is a small village on the western shore of Sarawak (also known as Borneo). It was founded in the 1890’s by a single family/clan. The land on which Alit sits is literally washing away as a result of coastal erosion, accelerated by coastal dredging and the loss of mangrove forests over the last 10 years. Not only do the residents of Alit need to relocate, there is a complicated set of

institutional incentives compelling them to try to convert native forests into palm oil plantations (if they do not, the federal government might appropriate their land since it is undeveloped.)

The situation is further complicated by religious divisions. There are two distinct groups: the Iben Alit, who are Christian, and the Malay Alit, who are Muslim. The visibility of religion through dress creates a barrier between the stakeholders contributing to an in-group/out-group mentality. A conflict assessment based on xx yielded the following conclusions:

- The two main stakeholders have different native languages, religions, traditions and cultural beliefs.

- Decision authority lies with government and the power distance between the key stakeholders will make discourse across the various levels quite difficult.
- Lack of trust in government by the Alit community (contributed to by a perceived favouritism for Malays)
- Need for science to contribute to the analysis of the coastal situation but likelihood of a low trust in that science.
- The parties will likely approach the conflict competitively with in-group/out-group biases.
- Sense of urgency to devise a strategy for the Alit community's welfare due to the coastal erosion. Highly emotive and value-driven conflict.
- High illiteracy rate and lack of capacity within the Alit community
- Lack of transparency and communication from government

The discourse process that was developed to respond to this situation was brief—it was designed to be completed in roughly 4 months. (Insert figure) Much of it was designed to address distrust in government, literacy/capacity issues, and out-group biases. The process would begin on Gawai day celebrations in June, which are culturally important to the Iben Alit, and conclude with the Adilifitri day celebrations which are held on October 13th and mark the end of the Ramadan fast. This is a major even in the Muslim religion and by the Iban sharing in the celebrations they will be able to learn more about their neighbors' culture and strengthen their relationships with one another. The intervening months would be filled with a series of workshops, field trips, asset mapping exercises, and learning activities intended to help build the foundation for sound decisions about whether and how to relocate the Iben Alit village.

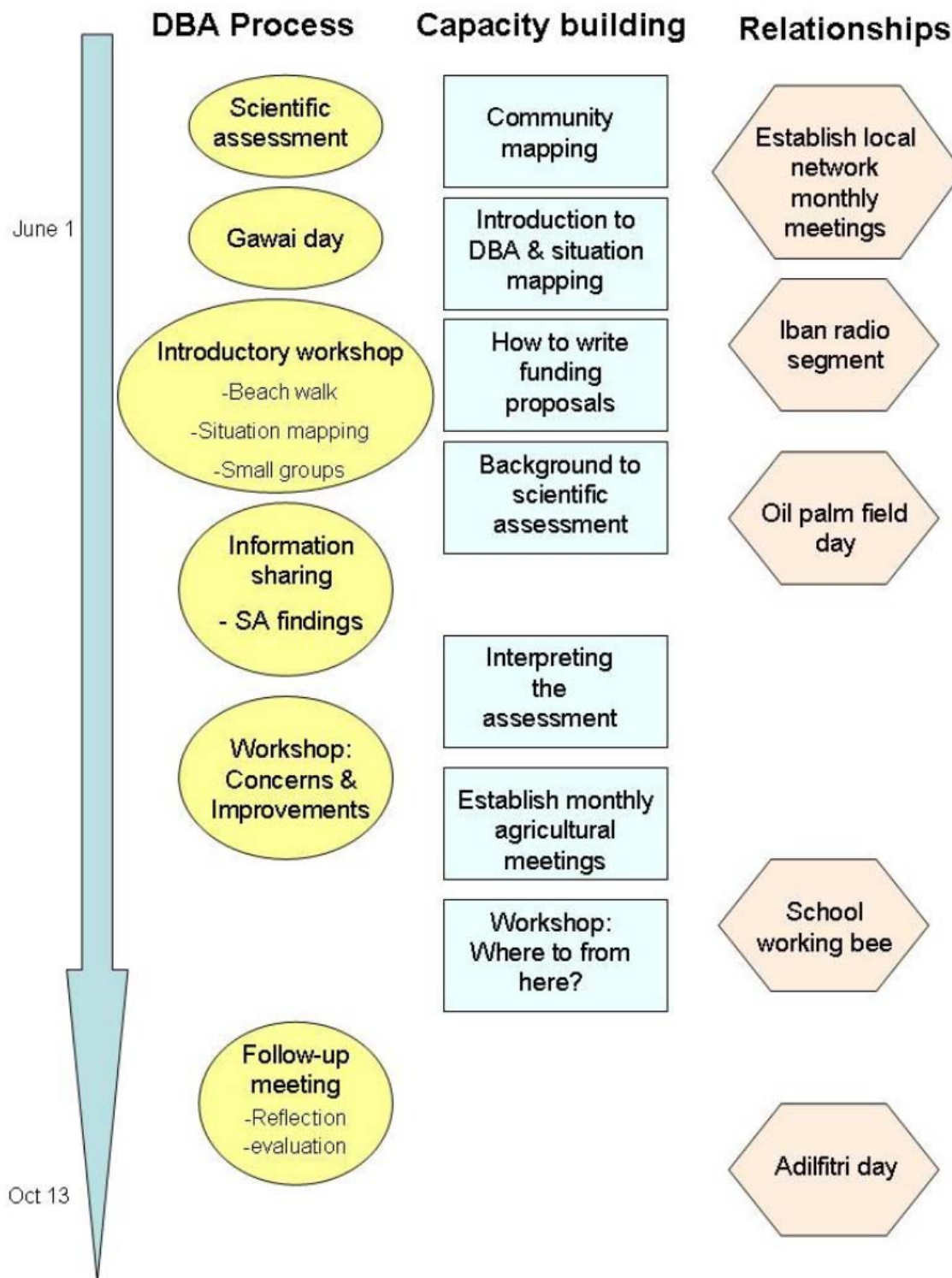


Figure 7. Outline of activities of the DBA and capacity and relationship building activities which will be run in parallel.

**Table 4. Overview of critical features, desired behaviours and methods to be used in the DBA design**

Unifying framework Elements	Critical Features	Desired behaviours	Activity	Specific objective
Culture	<ul style="list-style-type: none"> <li>•The two main stakeholders have different native languages, religions, traditions and cultural beliefs.</li> </ul>	<ul style="list-style-type: none"> <li>•Respect each other's culture and differences. Show patience</li> </ul>	<ul style="list-style-type: none"> <li>• Gawai day</li> <li>• Adilfitri</li> </ul>	3a
Institutions	<ul style="list-style-type: none"> <li>•Lack of trust in government by the Alit community (contributed to by a perceived favouritism for Malays)</li> <li>•Need for science to contribute to the analysis of the coastal situation but likelihood of a low trust in that science.</li> </ul>	<ul style="list-style-type: none"> <li>•Adopt a cooperative frame and work to build trust.</li> <li>•Be open to new information and willingness to take on a new perspective</li> </ul>	<ul style="list-style-type: none"> <li>• Gawai day</li> <li>• Situation mapping</li> <li>• Introductory workshop</li> <li>• Scientific assessment by external consultant</li> <li>• Discussion of findings</li> </ul>	1, 2, 3  1, 4
Power	<ul style="list-style-type: none"> <li>•Decision authority lies with government and the power distance between the key stakeholders will make discourse across the various levels quite difficult.</li> </ul>	<ul style="list-style-type: none"> <li>•Cooperative approach to the process, respect for others.</li> </ul>	<ul style="list-style-type: none"> <li>• Introductory workshop</li> <li>• Gawai day</li> <li>• Adilfitri</li> <li>• Capacity building activities</li> <li>• Where to from here? Workshop with Alit</li> </ul>	1, 2, 3,4

**Table 4 continued**

Incentives	<ul style="list-style-type: none"> <li>•Sense of urgency to devise a strategy for the Alit community's welfare due to the coastal erosion.</li> </ul>	<ul style="list-style-type: none"> <li>•Initiate the process</li> <li>• quickly</li> </ul>	<ul style="list-style-type: none"> <li>•Begin with the scientific assessment and introductory workshop as soon as possible</li> </ul>	1
Cognition	<ul style="list-style-type: none"> <li>•The parties will likely approach the conflict competitively with in-group/out-group biases.</li> </ul>	<ul style="list-style-type: none"> <li>•Respect each other's culture and perspectives. Re-frame the situation</li> </ul>	<ul style="list-style-type: none"> <li>•Gawai day</li> <li>•Adilifitri</li> <li>•Mixed small work groups</li> </ul>	1, 2, 3
P-3A	<ul style="list-style-type: none"> <li>•Highly emotive and value-driven conflict.</li> </ul>	<ul style="list-style-type: none"> <li>•Be respectful of each other's values and sensitive to their needs.</li> </ul>	<ul style="list-style-type: none"> <li>•Gawai day</li> <li>•Adilifitri</li> <li>•Beach walk</li> <li>•Situation mapping</li> </ul>	1, 3
Capacity	<ul style="list-style-type: none"> <li>• High illiteracy rate and lack of capacity within the Alit community</li> </ul>	<ul style="list-style-type: none"> <li>•Be respectful of others' abilities.</li> <li>•Be willing to learn new skills</li> </ul>	<ul style="list-style-type: none"> <li>•How to write funding proposals workshop</li> <li>•Introduction to scientific assessment</li> <li>•Oil palm field day</li> <li>•Monthly meetings</li> <li>•Monthly agricultural days</li> </ul>	3, 4
Com'cation	<ul style="list-style-type: none"> <li>•Lack of transparency and communication from government</li> </ul>	<ul style="list-style-type: none"> <li>•Increased interaction between Alit, government and other outsiders</li> </ul>	<ul style="list-style-type: none"> <li>•Participation in the process</li> <li>•Use of extension officers</li> </ul>	2, 3

Castle management-Denmark (To be included)

While the three cases discussed above were among the better designs that the students presented, they were broadly representative of the set. All of the cases were creative designs. In addition these cases illustrate the broad variation in cases to which the students applied the DBA-Design framework. The high quality of the designs that the students developed—even though none of them were experienced facilitator/mediators—bears witness to the potential applicability of this design template.

## **5 Summary and future applications**

The Discourse-Based Approach Design Framework is an organizing metanarrative. It has value in both the ex ante design of participatory methods of decisionmaking as well as the post hoc analysis of processes. It is the intentional construction of an interdisciplinary theoretical construct by blending together the perspectives of several distinct literatures. At a coarse level, it attempts to look simultaneously at convergence of contextual factors (culture and institutions) with individual factors (P-3A and cognition). It provides an orderly way to think through the complexity that inevitably seems to accompany efforts to make natural resource decisions in a participatory and discursive manner. It allows one to focus on specific factors (institutions, incentives, attitudes, etc.) that might affect the collaborative potential in a situation, but also forces one to reflect on how each individual factor interacts with others.

The test of the value of the DBA-Design Framework will come through its application. The quality of the initial set of project papers that were based upon the Framework offer some preliminary hope that it will be useful. But more detailed and less hypothetical projects that culminate in actual events designed via the Framework will be a more rigorous and valid test. But even then it will be largely impossible to unambiguously declare the Framework as either “right” or “wrong,” because there is no way to know if choices based upon it were better or worse than the alternatives. (Hoping that there could be more certainty about the value of the Framework falls squarely into Fischer’s critique of overly positivistic epistemology that provided part of the motivation for this effort. To fall into that trap at the conclusion would be most ironic.) The best we are likely to do is conclude that the Framework is more or less useful, which would be measured by the insights that it offers, the assumptions that it forces us to examine, and questions it forces us to answer, and perhaps the mistakes that it allows us to avoid.

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