

# Park Planning for Life



## Chapter 9: Plan Implementation

### It Takes a Village to Raise a Plan

Manual for Public Use Coordinators



# Plan Implementation

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## Main Points

1. The DICE World presents various accelerating challenges whose solution cannot be accomplished by a single, likely bureaucratic, management agency.
2. In the DICE World plan implementation usually requires the assistance and support of the entire protected area community; thus managers' principal task is to nurture and cultivate this community of stakeholders.
3. One remedy to government management inefficiency is co-management where different levels of government and civil society, especially communities, share management responsibility and power.
4. Adaptive management requires an organizational culture and philosophy that values learning such that the organization or community can adopt learning tools necessary to continually generate new knowledge for both solving problems and envisioning a desirable future.
5. Adaptive co-management combines multi-level management with organizations that can actually learn and adapt fast enough to keep up with the world's challenges.
6. Planning is a facilitated conversation designed to motivate and organize a community to feel responsible and accountable for a heritage site.
7. PUP must work with other cooperators to help sites transition to the new paradigm in planning.
8. Ultimately when organizations become learning organizations the distinctions between planning and managing, thinking and doing, researching and practicing fade away.

# Objectives

1. Understand that implementation is much more about investing in community and organizational learning than in a document.
2. Prepare community of stakeholders to undertake a process that ideally leads to a whole new way of managing.
3. Learn some techniques beyond the annual operating plan to implement plans.

# 9 PLAN IMPLEMENTATION: IT TAKES A VILLAGE TO RAISE A PLAN



In a village, such as this one on the border of Malawi's Nyika National Park, everyone raises the child.

## Plan Implementation Is Not about the Plan

In traditional villages, parents do not raise their child by keeping her indoors all alone in front of a television screen. They raise their child with full participation of the entire community. The child plays with other children of different ages, and adults throughout the community rely on their shared community values to direct and even discipline any children in the village.

For many World Heritage Sites, however, the management agency sees itself the parent who must raise the plan all by itself. There is no community, no shared values, and no common responsibility of stakeholders to direct or even discipline the plan's implementation. The agency focuses way too much on the plan. One biosphere reserve in Mexico asked us at the Public Use Planning Program, "We have a plan that we already completed, can you help us to implement it?" We answered "no." The damage had already been done. The reserve had invested a great sum of money, time, and expectations in producing a document. It had invested very little in the community or its own organization that must implement it.

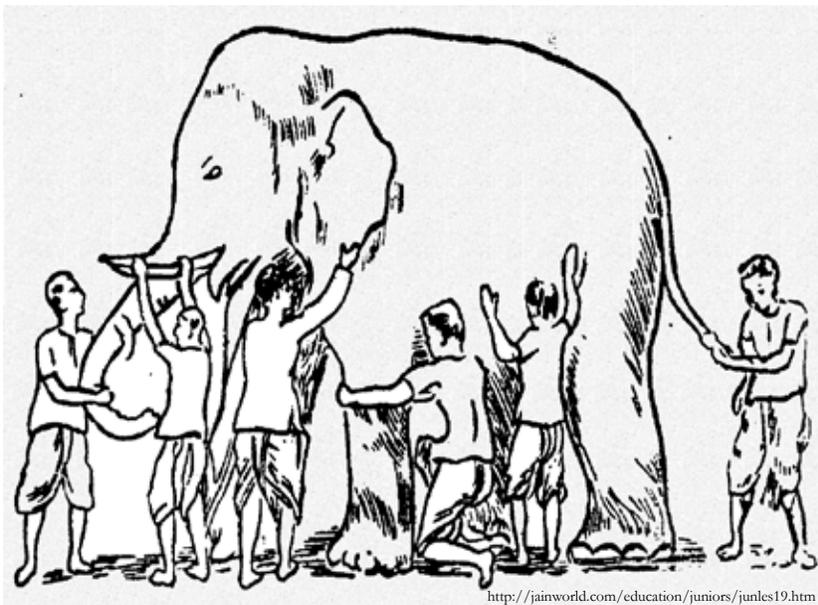
In Chapter 1, we discussed Rational Comprehensive Planning and how its scientific orientation focuses its energy on producing a prestigious trophy, the plan. But as we will see, this approach ends with plans on shelves. To implement a plan, then, requires the participation of the protected area community.

A community in this sense does not refer to a geographically sited village inside or nearby a site. Rather a community's members include the World Heritage Site staff, the corresponding government agency, the neighboring villages or cities, other government agencies, non-profit organizations, for-profit companies, scientific institutions, and all visitors that regularly arrive. This community of stakeholders or actors has an active interest in the protected area. This community must mobilize itself not only to solve management problems but envision a desired a future and work towards achieving it.

## SCIENCE OBSCURES THE LARGER LANDSCAPE OF PLANNING

If the community of actors around the protected area is so essential to plan implementation, then planning cannot simply be about creating a document. Implementation starts long before Module 1, long before what we commonly refer to as *planning* begins. Planning then involves a much larger landscape that we often don't see because we're too close to that printed set of pages. It's like standing next to an elephant. If you're too close you can only see the elephant, not the rest of the herd or the forest behind the herd or even the clouds above it. You may not even see the entire elephant (see poem to right). We must step back from the elephant to see his habitat, his threats, and the evolving context that created him. Similarly we must step back from the plan to see the context that creates and nurtures plans and their implementation. Science has moved us too close to the plan.

Once we step back, we see that plan implementation implies not just making quality plans (the work of Modules 1–11) but cultivating a healthy community that will implement the plan and learn fast enough to survive in the DICE World.



<http://jainworld.com/education/juniors/junles19.htm>

### The Blind Men and the Elephant

John Godfrey Saxe (1816–1887)

American poet retelling Indian parable

It was six men of Hindustan  
To learning much inclined,  
Who went to see the Elephant  
(Though all of them were blind)  
That each by observation  
Might satisfy the mind.

The first approached the Elephant  
And happening to fall  
Against his broad and sturdy side  
At once began to bawl:  
"Bless me, it seems the Elephant  
Is very like a wall".

The second, feeling of his tusk,  
Cried, "Ho! What have we here  
So very round and smooth and sharp?  
To me 'tis mighty clear  
This wonder of an Elephant  
Is very like a spear".

The third approached the animal,  
And happening to take  
The squirming trunk within his hands,  
Then boldly up and spake:  
"I see," quoth he, "the Elephant  
Is very like a snake."

The Fourth reached out an eager hand,  
And felt about the knee.  
"What most this wondrous beast is like  
Is mighty plain," quoth he;  
"'Tis clear enough the Elephant  
Is very like a tree!"

The Fifth, who chanced to touch the ear,  
Said: "E'en the blindest man  
Can tell what this resembles most;  
Deny the fact who can,  
This marvel of an Elephant  
Is very like a fan!"

The Sixth no sooner had begun  
About the beast to grope,  
Than, seizing on the swinging tail  
That fell within his scope,  
"I see," quoth he, "the Elephant  
Is very like a rope!"

And so these men of Hindustan  
Disputed loud and long,  
Each in his own opinion  
Exceeding stiff and strong,  
Though each was partly in the right  
And all were in the wrong.

So oft in theologic wars,  
The disputants, I ween,  
Rail on in utter ignorance  
Of what each other mean,  
And prate about an Elephant  
Not one of them has seen!

# Implementation Begins with a Community of Actors

## IN A DICE WORLD, WE NEED EVERYONE TO HELP IMPLEMENT

In the old PLUS World where things changed slowly, systems behaved like a well-trained dog at a show. In that world we could predict what our strategies would do several years in advance. Perhaps it was sufficient to involve just a few people or agency staff in plan implementation. But the world has transformed. In this new world, we experience accelerating change and evolution.

### *1. Climate Change*

At this writing in 2009, scientists tell us that polar ice cap melting, sea level rise, and weather behavior abnormalities are all speeding up much faster than climate models predicted only six months earlier. They tell us that we have less than 10 years to bring our CO<sub>2</sub> emissions down to 350 parts per million (today we're at over 380) or we will provoke a tipping point and lose control of climate change and its consequences. Climate change is already having drastic effects in parks with glaciers. Other sites see species migrating, beaches eroding, mountain forests drying, increases in mosquitoes, disappearance of frogs, and many others.

### *2. Energy Systems*

Because of climate change and peak oil<sup>1</sup> our global energy portfolio is changing quicker and quicker. This requires significant changes both in our means and patterns of transportation. New decentralized sources of energy could be beneficial for distant protected areas but could also seriously alter how and if visitors arrive.

### *3. Globalization and Political Messiness*

Globalization has connected the world in a much more tightly knit civilization. More people can now participate in politics and that makes politics more complex, nuanced, and messy. Protected areas that spend their money on science rather than community strengthening will sink in a swamp of conflict. We have already seen in the last decade an exponential explosion in citizen organizations. As hardline governments transform into democracies and with exponential growth in globalization, protected areas have to work with increasing numbers of groups with different interests.

<sup>1</sup>Peak oil is that point at which oil production has reached its maximal output. Thereafter, production decreases despite new technologies and discoveries and prices increase. The US reached peak oil around 1970. Kuwait's biggest field peaked in 2006, Mexico's in 2005. Experts are debating the world peak as happening between 2006 and 2011.

## 4. *Technological Evolution*

Technological futurist Ray Kurzweil studies the rate of technological change. His famous 2001 essay, “Law of Accelerating Returns,”<sup>1</sup> notes that in the 21st Century we will not experience 100 years of progress, rather,

it will be more like 20,000 years of progress (at today’s rate). The ‘returns,’ such as chip speed and cost-effectiveness, also increase exponentially. There’s even exponential growth in the rate of exponential growth. Within a few decades, machine intelligence will surpass human intelligence, leading to The Singularity — technological change so rapid and profound it represents a rupture in the fabric of human history. The implications include the merger of biological and non-biological intelligence, immortal software-based humans, and ultra-high levels of intelligence that expand outward in the universe at the speed of light.

## 5. *Bureaucracies and Problem Solving*

Around the world large institutions organized along PLUS principles of stability and control. **Bureaucracies** find themselves increasingly incapable of solving problems in the DICE World. Global problems require global solutions and few systems respect national boundaries and bureaucracies: environmental problems, global economics, global transportation, global communication, refugees and migration. See sidebar on bureaucracies on 9-22.

In this rapidly changing world, World Heritage Site managers, like cowboys from the American West, will have to draw their pistols much faster, with less time to understand problems they shoot at, with more players obscuring their view of the target, and new and more confusing socio-ecological events happening like they have never seen before.

Protected areas, like national governments, must transition from old-fashioned bureaucratic management with its slow learning and change, to a new form, much more innovative in order to avoid falling into disruption and collapse. Paper parks have always been a problem in the PLUS World, imagine in the DICE World how many real parks could end up just as ineffective as the paper ones. The World Heritage Center, for example, has over 890 sites on the List (2009). Never in its history had it delisted a Site until 2007 when the Arabian Oryx Sanctuary in Oman lost its World Heritage status and then again in 2009, the Dresden Elbe Valley, both victims of development the sites could not control.<sup>2</sup> How many more will follow?

<sup>1</sup>Download at [www.kurzweilai.net/articles/art0134.htm?printable=1](http://www.kurzweilai.net/articles/art0134.htm?printable=1)

<sup>2</sup>In 1996, the population of the Arabian Oryx in the Sanctuary was at 450 but has since dwindled to 65 with only about four breeding pairs. This decline is due to poaching and habitat degradation. Because of the small population Oman decided to reduce the size of the area by 90%, which provoked its delisting.

## TYPICAL SITE COMMUNITIES SUFFER FROM CONFLICTIVE COMMUNITIES

God gave us families so that we must learn to live with people different from ourselves. Many sites still haven't learned how to live with other members of their communities. Very often protected area communities suffer from mistrust, conflict and competition, varied interests with no shared vision, defensiveness to entrenched positions, and power and information imbalances (usually tilted toward the agency that directly and legally manages the site).

In the Ostional Wildlife Refuge in Costa Rica, for example, the community of actors is fractured. The government manages the refuge while the University of Costa Rica (UCR) manages a research station in this coastal refuge, known for sea turtle nesting. In 2009 the Supreme Court ordered the removal of all community members living within the refuge and private landowners fear losing rights to their land. Community members have requested that they be considered "fauna" so that the government might afford them the same rights that wildlife enjoys.

The UCR has just finished a massive, technical study done by geologists, hydrologists, and geographers that, with some 20 maps, shows what areas have fault lines, where open-air aquifers lie, and other delicate ecological zones, often underlying private landholders, such as already constructed hotels. To present the findings to the community, the UCR wanted to send a biologist who had not been involved in the refuge, did not know the community, and did not participate in the study to facilitate the meeting and present the results. The study's lead author already had poor relationships and feared community leader backlash. The tapped biologist eventually declined due to inappropriateness and rationality prevailed as her director agreed and kindly thanked her for the contribution.

Dealing with communities in this way, unfortunately, is not an unusual circumstance for many protected areas.

## PLANS NEED A COMMUNITY AND NOT JUST A SINGLE AGENCY

Of course some sites do nurture their communities and may not have overwhelming problems, so they can skip this section. Most, however, should read on.

### *1. Bureaucracies Are Slow*

While bureaucracies are highly efficient under stable conditions, in the DICE World they are too slow, inflexible, and often closed to new innovations. Other minds must complement their bureaucratic rationality in a community. See sidebar on bureaucracies, [9-22](#).

## ***2. Integration of Different Kinds of Knowledge***

Rational comprehensive planners respect only one kind of knowledge: scientific. But scientific knowledge reveals only one perspective and often misses important insights that can aid management. Other ways of knowing, other knowledge systems, include experiential, intuitive, collective, traditional, and spiritual knowledge. The combination of these can make plan implementation much more effective by offering solutions and culturally acceptable alternatives. Different actors in a community contribute different kinds of knowledge.

## ***3. Variety of Resources***

To implement plans usually requires resources beyond the means of the lead agency. Implementation requires money, labor, time, and political support. Only a community of actors can generate all resources necessary to implement. In a healthy community where actors feel ownership for a site, actors choose to be responsible and accountable.

## ***4. Social Networks***

As new challenges emerge quickly, their remediation requires varied skills and perspectives beyond the reach of the park agency. If we see a community as a social network full of actors waiting to be activated or called upon, we can see that the potential inherent in a community network can generate knowledge, skills, and people much faster than an annual budgeting process of a typical protected area.

### **MANAGERS MOSTLY MANAGE PEOPLE, NOT WILDLIFE**

As many have written, wildlife does not require management (after all, wildlife has carried on for millions of years without human help), people require management. Were it not for human actions, there would be no need for protected areas or protected area managers, let alone this manual. Seen this way, management is not about applying science to manage resources, it's about managing social interactions to solve problems and envision a future that everyone truly wants.

If managers must manage their communities above all, what kinds of components should they maximize?

### ***1. Trust***

Almost no one plans or negotiates with someone they don't trust. If they must engage others they do not trust, they often do so with force and formal enforcement mechanisms (binding arbitration, inspectors, or soldiers). No healthy community however survives without trust among its members. Too many parks launch into planning processes

with actors distrustful and suspicious of others' motives, especially those of the government.

## ***2. Respect***

Respect comes from one actor's trying to understand and value the perspective of others. It is not necessary to agree with each other, but when one stereotypes another, speaks badly of him, does not value the other's circumstances or opinions or perspectives, the resulting disrespect quickly becomes mutual and arguments break out, us-them conflicts prevail, and a lack of cooperation ensues. Resentful local communities commonly claim that protected area managers do not understand their position and simply impose regulations that restrict their access to resources. Managers often characterize local hunters, loggers, farmers, and even tourists as destructive and troublesome.

## ***3. Power Sharing***

All actors feel they have rights to resources. Locals want to hunt animals to feed their families; scientists want access to pristine areas to carry out studies; tour operators want to bring visitors to the nicest waterfalls; landowners want to build houses with beautiful panoramas; and managers want legal power to decide what activities can be done in a site. Each actor then wants certain aspects managed in certain ways. If they have power to participate, to effect real change, they feel both ownership and legitimacy for the arrangements that the community generates. When power is not shared, weaker actors often see powerful ones as illegitimately imposing their will and agendas. Power sharing is one of the most difficult steps government agencies can take to improve their community.

## ***4. Social Capital***

Social capital refers to networks of actors that share norms, values, and understandings. These elements facilitate their cooperation and ability to get things done. Thus the more positive relationships actors share with other actors, the more their visions and values overlap, the more they can achieve as a community. Often times, site personnel meet and know loggers, landowners, local police, villagers, scientists, but these different actors do not know each other. The site management is the center of a bicycle wheel where all spokes meet. This would represent low social capacity and low capacity for the community to do things together. The park in this case should foster relationships between different actors so that all action and communication does not go through its staff. As the musketeers say, "all for one and one for all."

## 5. Resilience

Resilience is the capacity of a social or ecological community to adapt to or tolerate changes or disturbances without collapsing into something completely different. This capacity stems from institutions that:

- ◆ Embody the meanings and purpose of the community
- ◆ Are capable of responding to the complexity of ecological and social circumstances of the community
- ◆ Take into account a wide variety of external drivers
- ◆ Create cross-scale linkages across geographical space and levels of organization

If a resilient soccer team encounters a new opponent with a never-before-seen strategy that puts them down 2–0 at half time, the team will make adjustments, realign players, modify strategies, and offer a new front in the second half. An unresilient team, however, will become nervous and worried and simply try harder at what it has always done. Come second half, they will allow several more goals while their offense and defense break down under in the face of novelty. After the game their self-confidence and their self-perception of what they can do may suffer.

### **CULTIVATING A COMMUNITY TAKES TIME**

The community building community is clear about one lesson: it takes time to develop trust and social capital, usually years. Ideally formal planning shouldn't commence until the community has solidified a degree of trust and respect.

Often times you don't have years to start from the beginning; you need to plan soon. In such a case, you should budget months to assemble a core group or planning team that then should make great efforts to understand perspectives, worldviews, priorities, language of the different actors. This team had better be good at holding multiple perspectives simultaneously and facilitating group interactions. If the community is conflictive, they may spend most of the time one-on-one with stakeholders before bringing them together. If less conflictive, the team may also promote activities that build trust between different actors. In both cases, research shows that starting small with just a few actors and gradually increasing the number of interacting actors also builds community without overwhelming initial efforts.

## **LEAD AGENCIES CAN PROMOTE, BUT NOT MANDATE, THE COMMUNITY**

Traditional government agencies accustomed to top-down control may be tempted to mandate the formation of a collaborative community (see table on different understandings of collaboration on the following page). But as soon as the agency exercises its superior power, even if well intentioned, the collaborative community loses legitimacy because force, not true interests, drives the process.

Agencies can however pass favorable policies such as

- ◆ Formally recognizing rights of community members. Often protected areas communities cannot form because actors feel the lead agency suppresses their rights to land tenancy, access to resources, or creation of place meanings.
- ◆ Creating legislation for co-management (see below) where local communities can participate in site decision-making
- ◆ Creating mechanisms for sharing power and information
- ◆ Allocating funds or fund opportunities (micro-credit, for example) for community members or the community as a whole to implement plans

## **TRUE PLANS DOCUMENT COMMITMENTS, NOT OFFER RECOMMENDATIONS**

When Rational Comprehensive Planning avoids social aspects, it cannot usually garner significant social commitments, except by the lead agency (and even that cannot back its own commitments with funding since budget cycles do not synchronize with planning cycles). Such planners then only have recommendations based on science and a hope that someone, sometime, will pick them up and convert them into commitments.

A plan that effectively engages communities, however, uses the plan as a record of on-going commitments, even if the commitment is to pursue an initiative beyond the jurisdiction of the plan itself. For example, the actors might commit to overturn a law or create a new budgeting system within a ministry.

## **MAYBE COMMUNITIES CREATE PROTECTED AREAS**

We're accustomed to thinking that a protected area's resources results in different interests around which groups of stakeholders form. But

in this new view of community, we might say that communities for good and bad precipitate management (to stop illegal logging or to unify actors in decision making). Management problems then arise from dysfunctional communities, much more than external threats. While climate change does cause problems of migration or changing rain patterns, park managers can't change the climate, they can only influence how the community reacts to climate change, envisions the future with climate change, and then creates the means to reach that future.

In this view, managers manage social interactions, heal and nurture communities to become a force in creating the future. Actors in a healthy community choose to be responsible and accountable for the protected area, rather than compete with the lead agency. They feel ownership, see legitimacy and fairness in the site's management. Two researchers, Paul-Wostl and Hare, said

management is not a search for the optimal solution to one problem but an ongoing learning and negotiation process where a high priority is given to questions of communication, perspective-sharing and development of adaptive group strategies for problem solving.

**The various ways in which collaboration, including co-management, is understood**

Collaboration as a form of self-defense	In a changing world, indigenous peoples and local communities need more than ever strong internal and external forms of cooperation to be able to withstand various threats and dangers.
Collaboration as a response to complexity	The natural resource base of livelihoods cuts across a variety of political, administrative, cultural, and social boundaries, and there exist a multiplicity of concerned social actors.
Collaboration for effectiveness and efficiency	Different social actors possess complementary capacities and comparative advantages in management, which can be profitably harnessed together.
Collaboration for respect and equity	A fair sharing of the costs and benefits of managing natural resources and ecosystems is essential for initiatives aiming at human development and conservation with equity.
Collaboration through negotiation	At the core of most co-management arrangements are formal and/or informal plans and agreements. Such arrangements need to be negotiated through a fair and flexible process of learning-by-doing.
Collaboration as social institution	The harnessing of complementary capacities and the fair distribution of costs and benefits are the foundation of many institutional arrangements for co-management.

From Chapter 2 of *Adaptive Co-Management*

## The Community Involvement Plan

Community builders use many theories and tools to strengthen all kinds of communities from company work teams to cities. One strategy for preparing a community to create tourism management plans comes from Ecological Tourism in Europe (ETE, [www.oete.de/en/oete.html](http://www.oete.de/en/oete.html)), a German non-profit that helps communities plan for tourism in biosphere reserves. ETE argues for the need to actually create a plan to involve the community, given the very high importance of preparing a protected area community for planning. “The CIP aims to clearly pave the path for participation opportunities for all possible stakeholders and to communicate project-related information in an adequate way to everyone who might be affected.”

The following table of contents comes from a recent community involvement plan in Indonesia. The entire plan can be found in the appendix for this chapter.

### Chapter 1 (1 page)

- Motivation for community and involvement plan
- Overview of the document
- How to use the document

### Chapter 2 (5 pages)

- Description of the site
- Tourism development nature protection
- The project

### Chapter 3 (2 pages)

- Development of the plan
- Current situation of communication and involvement
- Stakeholders view on tourism development
- Stakeholders view on nature protection
- Experiences and needs of the stakeholders regarding community involvement

### Chapter 4 (9 pages)

- Goals and objectives
- Activities adopted in the community involvement plan

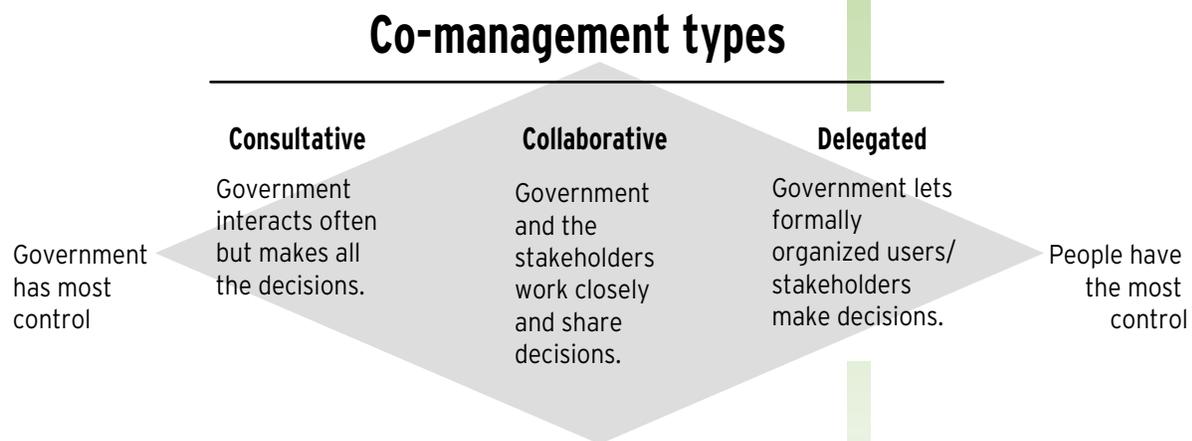


# Communities Can Co-manage Protected Areas

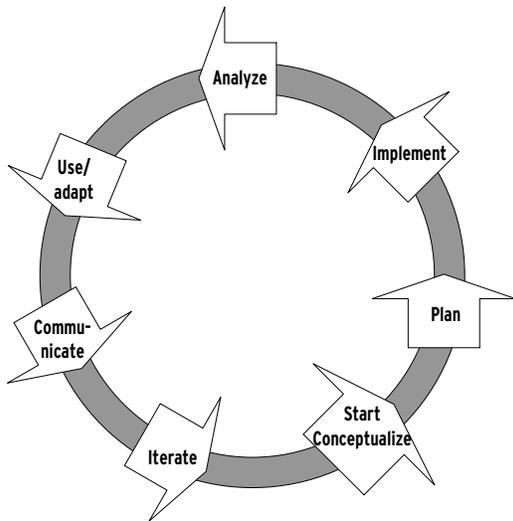
In recent years, as governments realize they alone do not have sufficient capacity to manage protected areas or because they value collaboration with local communities have implemented various levels of co-management (see figure below) which shares some power with lower levels of government and civil society. Co-management can be lopsided toward the government or the people.

Canada is perhaps the world leader in sharing power with local indigenous tribes while other countries experiment with lesser degrees of sharing. The Belizean and Honduran governments have delegated management to non-profits while Bolivia has practically handed protected areas to indigenous groups at the same time excluding participation of international organizations.

In most cases, the law defines co-management and creates the space for other sectors to collaborate. Ideally some level of co-management already exists before PUP kicks off.



From Chapter 6 of *Adaptive Co-Management*



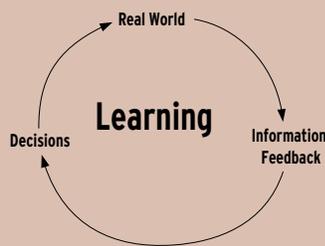
### Definitions of learning

Chris Argyris (Massachusetts Institute of Technology): learning is the detection and correction of error

John Dewey (famous educator): learning is an iterative cycle of invention, observation, reflection, and action

Psychologists: learning as a permanent change in behavior brought about as a result of practice or experience

Systems thinkers



## Co-Managers Need Adaptive Management to Adapt

It's of limited benefit to have co-management where government cooperates with local communities to manage a protected area but then the co-management community does not have the ability to learn fast enough to keep up with accelerating change. This is the argument by Canadian authors in the book *Adaptive Co-Management: Collaboration, Learning, and Multi-Level Governance*. Co-management is not enough; it must combine with adaptive management, which gives us **adaptive co-management**.

### ADAPTIVE MANAGEMENT HELPS TO SPEED UP LEARNING HOPEFULLY FAST ENOUGH FOR A DICE WORLD

But before we explore adaptive co-management, what is **adaptive management**? For many modern scientists, adaptive management is nothing more than a learning loop where one plans, acts, monitors, receives feedback, analyzes feedback, and then improves the next trip around the loop (see diagram at upper left).

But adaptive management is more than this. It is an attitude and a culture within an organization. People and organizations have to deeply understand and appreciate learning and what it can provide. They need to know how to learn. Otherwise many tools we commonly see based on learning often fail. Ever wonder why we hear so much in protected areas about adaptive management, monitoring and evaluation, and limits of acceptable change and yet these usually don't work well in the field? That is because they require a certain consciousness about the role of learning before people value and use them. If you are a rational comprehensive planner, you know your limits: lack of money, time, and personnel, not your ability to learn. And in a PLUS Word where control and stability rule the day, we do not feel urgency to learn by taking on our deep assumptions, changing our habits, questioning what we think we know and do, and adapting to rapid changes. These changes hurt and best be avoided, unless you truly appreciate learning. Until this appreciation takes hold, not likely a park community will use these tools once the money to implement them runs out and outside advisors go home.

So if adaptive management is about learning, adapting, and experimenting, what kinds of skills might be necessary for adaptive managers?

- ◆ Devising hypotheses and building experiments to

- test them
- ◆ Surfacing hidden assumptions and temporally suspending them in order to examine other people's assumptions
- ◆ Holding and understanding multiple perspectives at the same time (putting yourself in several people's shoes at the same time)
- ◆ Facilitating a group dialogue rather than a debate
- ◆ Senge's five disciplines for learning organizations: mental modeling, creating a shared vision, personal mastery, team learning, systems thinking

## LEARNING ORGANIZATIONS USE ADAPTIVE MANAGEMENT

As you can see with Senge's disciplines, learning is at least as much a collective act than an individual one. People learn much faster and deeper in groups than by sitting home alone. Thus a workplace must present the right conditions for people to learn together, otherwise

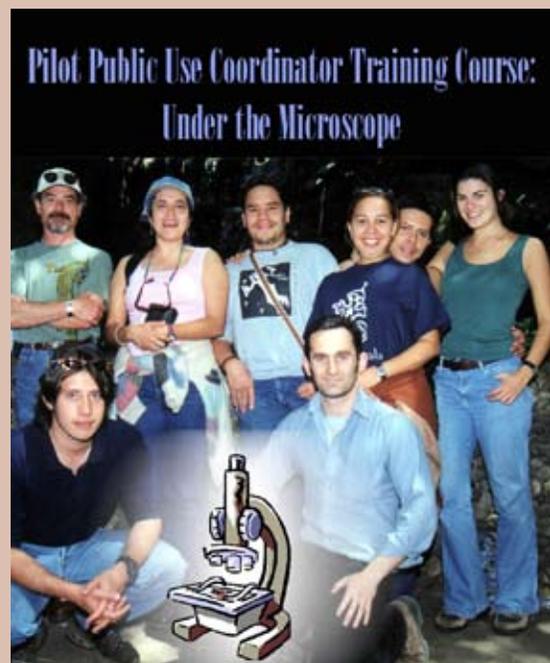
### Organizational Learning and the First PUP Training Course

The 2002 Rare PUP Program manager evaluated its first PUP course in Antigua, Guatemala. The report entitled, "Pilot Public Use Coordinator Training Course: Under the Microscope," started this way:

**Peter Senge of the Massachusetts Institute of Technology is one of the most renowned scholars in organizational learning. He says that learning organizations are those in which "people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together... Learning organizations develop people who learn to see as systems thinkers see, who develop their own personal mastery, and who learn how to surface and restructure mental models collaboratively." We hope this report represents the high ideal of organizational learning at RARE Center, subordinating personal interest and pride for the betterment of a new and upcoming program.**

The report harshly criticized PUP's own performance of the course that provoked a minor student protest and tired everyone out. The report said, for example, "The major challenge during the current course was fatigue. Marlen [a participant] mentioned that the course pushed the reasonable limits of human mental capacity. For her, 9 modules in a course with 45 consecutive days are more than anyone could tolerate without succumbing to exhaustion."

This self-lashing, however, occurred within an organizational culture that both permitted errors and encouraged improvement. Rare's president and vice-president lauded the report and said that it should be the model for future Rare self-evaluations. In fact, as a result of the evaluation, PUP staff implemented many suggestions including switching to a multi-segment process that Rare applied in Indonesia. This format resulted in a dynamic course that helped public use coordinators facilitate public use plans in Komodo and Ujung Kulon National Parks, inspired one coordinator to do her master's thesis on public use planning, changed the lives of Rare staff, and motivated UNESCO to continue supporting this program long after it left Rare.



they will compete, play power games, withhold information, keep a closed mind and door, hide errors, and defensively protect their ideas and turf which they see as their source of power and prestige. Unfortunately many workplaces feed these behaviors more than learning. For learning to take hold, then, we enter the field of **organizational learning**.

Some characteristics of learning organizations include:

- ◆ Safe, trusting, environments where people share errors which they see as learning opportunities rather than hide them because they indicate incompetence and weakness
- ◆ Teams that accept uncertainty and thus “I don’t know” is acceptable. They also realize that few if any proven methodologies guarantee desirable results. All programs and strategies are experimental in a DICE World. They know after all that many “proven” methodologies don’t work well or at all, such as maximum sustainable yield, visitor carrying capacity, use-based park zoning
- ◆ Accepting risk when it comes to experimenting, especially with endangered species. By eliminating the fear of doing, teams can reduce bureaucracy, report writing, reorganizing, planning, and other distractions from taking action.
- ◆ Leaders that model asking questions, sharing errors, and questioning their own assumptions
- ◆ Rewarding people for questioning and learning and punishing them for hiding information, playing power games, and doing nothing with their experiences
- ◆ Teams that create visions of desirable futures rather than simply react and troubleshoot
- ◆ Teams rather than individuals that propose remedies, such that egos do not identify with experimental ideas; when these ideas do not work, they can be readily modified or discarded.
- ◆ Encouraging people never to stop reflecting simply because they have years of experience or prestigious university degrees. There’s no time or opportunity to get comfortable with your knowledge and credentials.
- ◆ An effort to help people discover and maximize their own unrealized potentialities.
- ◆ Breaking down vertical hierarchies where people at

the top are the smartest, most capable, and best paid of the organization. Rather learning organizations organize horizontally in teams, where leaders work to promote communication between frontline staff (experiential knowledge), middle managers (ability to connect different elements within an organization), and upper managers (provide strategic direction, policies, and resources so other elements can function), all of whom have unique functions to advance learning.

- ◆ Exposing undiscussable ideas in an organization. Organizations often fear talk about odd behaviors of strange employees, unacceptable decisions by leaders, internal politics, and other off-limits issues.
- ◆ Integrating different kinds of learning and knowledge to produce solutions that make scientific, social, cultural, and personal sense.
- ◆ Teams skilled in conflict management.

We find that the greatest innovation in organizational learning and thus adaptive management comes especially from the private sector. In fact the Society for Organizational Learning ([www.solonline.org](http://www.solonline.org)) has largely for-profit members. Thus PUP cannot expect very many managers to exhibit these characteristics, but the program does seek out partners who express a true desire to move in this direction. PUP seeks those who want to innovate and act humbly but decisively in a DICE World. If this inclination does not exist, the best PUP can hope for is to produce another pretty plan that wins accolades and then ends up on the office shelf.

### **ADAPTIVE CO-MANAGEMENT COMBINES MULTI-LEVEL MANAGEMENT WITH ORGANIZATIONAL LEARNING**

Thus an ideal scenario involves a protected area community composed of government and communities that share power and decision making and together do, learn, and adapt in managing a special place.

While PUP can promote adaptive co-management, it will require cooperation of other agencies, donors, and participants to make such a fundamental change become reality. Unfortunately the change proves more difficult than simply mandating from the top which does not work. The top, at best, can adopt policies that make the self-organization of an adaptive co-managing community all the more likely.

## Bureaucracy: Once the most efficient form of government... then what happened?

Bureaucracy literally means “governance from the desk.” It is not a kind of government like democracy, technocracy, or aristocracy, rather a means by which any of those government forms operates. While bureaucracy has existed since ancient Egypt and Rome, in the modern era, bureaucracy has taken on a whole new sheen. Sociologist Max Weber shows that historically bureaucracies offer a large advantage over organizations that do not systemically manage, study, and implement rules. Think about a professional bureaucratic army with rigid rank-and-file, sophisticated war planning, logistic planning, and control over all aspects compared to a military operated as a loose tribe, with lots of individual free wills, such as soldier-farmers. They stand no chance as the Romans demonstrated time and again.

This applies equally to corporations, government agencies, universities, or the Vatican. It's no coincidence that bureaucracy has spread to nearly every major institution in the world. For a long time it was the most efficient way to control large numbers of people and resources.

To do this bureaucracy places high value on rationality, control, and obedience.

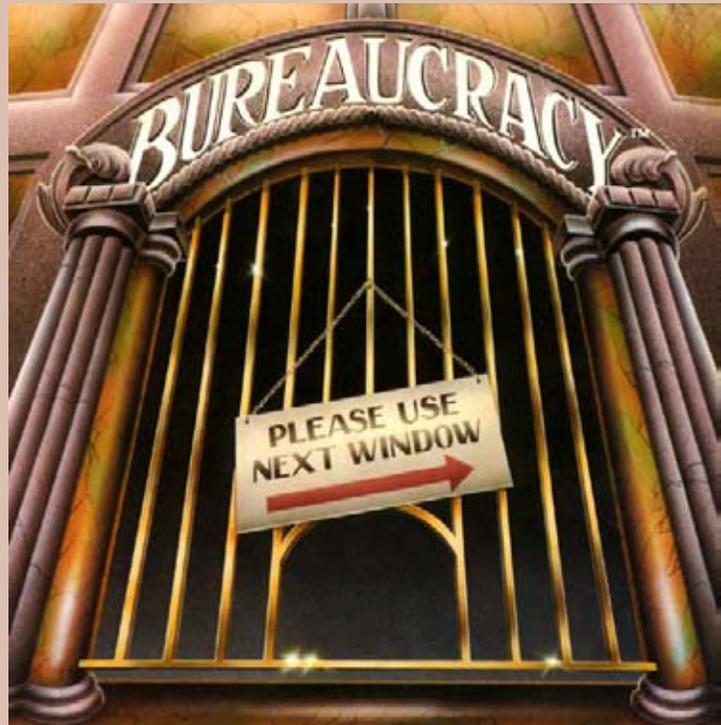
Thus, according to Weber, the ideal bureaucracy uses elaborate hierarchical division of labor directed by explicit rules impersonally applied, staffed by full-time, life-time, professionals, who do not in any sense own the tools (computers, desks, cars, weapons), their jobs, or the sources of their funds, and live off a salary, not from income derived directly from the performance of their job. All these strategies promote order.

To be efficient bureaucracies need all the professional, specialized niches (departments, offices, divisions, regiments, teams) to work in clocklike synchronicity. Each official must receive information in the correct format at the correct moment in order to process efficiently and send his signals and inputs to the next office.

As a result of these traits, Steven Yaffee identifies five behavioral biases of government agencies.

1. They prefer short-term rationality over long-term rationality. Agencies seek to minimize energy to respond to a situation while maximizing control and predictability. Promotes convenience, awards and planning for immediate results.
2. They prefer competition over cooperation and to protect power and not share it. If they share some, they will lose exactly this much power in a zero sum game. This bias inhibits sharing information, promotes biases and misinformation, turf protection even within agency, leads to stalemates, low morale, and low legitimacy in eyes of public. The ‘bias in favor of government control’ causes all negative outcomes to be attributed to the lack of government control and consequently leads to a felt need to increase regulation: the possibility that poorly designed government policies could be the cause is not entertained.
3. They fragment interests and values.
4. They fragment responsibilities and authorities.
5. They fragment information and knowledge.

A bureaucracy requires stability, predictability, linearity, professional and reductionist division of labor to function efficiently. For a long time the world more or less provided the conditions necessary for these demands. Now, though, with the DICE World rapidly distancing itself from its PLUS forebears, bureaucracy's demands to be efficient instead is inefficient. Its reliance on stability instead of producing efficiency increasingly produces inefficiency, reduces its ability to problem solve, and smothers its ability to learn, adapt, and change rapidly enough to keep up with an accelerating world. Bureaucracy peaked in modernism, and a new paradigm in organizations has arrived.



<http://infocom.elsewhere.org/gallery/bureaucracy/bureaucracy.html>

# Adaptive Co-management Requires a New Vision of Plans and Planning

To operate as a community across levels of governance, adaptively, and to share powers necessarily requires that our vision of plans and planning must change.

## **ADAPTIVE CO-MANAGERS USE CONSULTANTS IN A NEW WAY**

A first question might be, “what do we do with all the consultants that we hire to do our planning?” Because Rational Comprehensive Planning placed such a high premium on scientific expertise, protected areas had little option but outsource their technical thinking to experts, depriving their own staffs of the opportunity to lead the planning and thinking and ultimately the implementing. Outside consultants do not go away in a DICE World. Rather their role transforms into that of guide, advisor, and mentor such that protected area communities develop their own capacities to be more effective learning organizations. PUP serves this role as facilitator and mentor; it does not do the work of protected areas. It does not organize meetings, facilitate workshops, write up results, or lobby for plan approval.

## **AN ADAPTIVE CO-MANAGEMENT PLAN SHOULD ASSUME ELECTRONIC FORM**

The DICE World doesn't erase the need for recording information, but it does question the continued use of a 600-year-old technology to do it. Around 1440 Johannes Gutenberg assembled the first printing press; and although printing technology has evolved a long way since, the essential product, a set of pages bound together, has not.

Bounded pages not only use trees, ink, chlorine, water, and many other ingredients, but also make updating documents very hard to do. Why? Paper documents are linear, static, outdated quickly, hard to transport, not interactive, expensive to reprint, especially if one only generates incremental changes here and there. This format still works for books where the linear nature, beauty, physicality, and infrequent need to update dominate (although that's changing too, especially with electronic book readers).

Fortunately we do have readily available, newer technologies

that provide planners with

- ◆ Interactivity between plan and users
- ◆ Non-linear format that permits readers to navigate easily through different elements without passing through many pages to get what they want
- ◆ Cheap, attractive, graphical capabilities
- ◆ Sounds, video, and animation
- ◆ Capability to easily make incremental changes
- ◆ Greater opportunities for democratic participation

Most readers should recognize these traits of web pages. Web (html-based) pages have increasingly become the informational medium of choice, pummeling newspapers and to a lesser degree books in the marketplace. Protected area communities can publish their plans online, but now can update them easily in the manner already developed by software companies. Such companies produce new software not with the intention of getting it perfect or optimal the first time. Their goal is only to make their products salable the first time, after which they make incremental releases and infrequently major new releases: Beta version, version 1.0, version 1.1, version 1.1b, version 1.5, version 2.0. This is very easy to do with digital plans where the official version remains on the protected area's website. When new versions become available staff uploads them to the website, sends out advisory emails, publishes ads in newspapers, puts up posters on community bulletin boards, and announce at community meetings.

But what if communities don't have access to the Internet? Well send them a CD. What if they don't have a computer in their community? Then print a summary or key web pages. What if they don't read? Then make a graphical version, or perhaps a written plan was never of much use there anyway. But finally the much vaunted "living document" could truly be alive.

Bureaucracies accustomed to paper will resist in many countries, although their arguments quickly grow old in our globalized, digital age. The Berne Convention for the Protection of Literary and Artistic Works asserts that the Internet is just another form of publication, which should not matter as plans are usually public property, especially if a community continuously updates them. Even for countries, like Mexico, that consider management plans the law, most countries now upload their laws onto web servers.

In terms of plan content, the new vision has much to say. If protected area communities use plans to document commitments and must update them frequently, then plans should dispense with so much formality that both inhibits updating and makes plans harder to read and for which to feel ownership. Instead of scientific lan-

guage and formats, plans include popular images, fewer words, more interaction (surveys, blogs, buttons to click, opportunities to upload pictures and quotes), rules and issues relevant to local populations, and other strategies. This has happened especially with management plans written by indigenous communities.

- ◆ Nicaragua's first Bosawas management plan, done in coordination with The Nature Conservancy, used decorative art and detailed rules of local importance such as the women of one tribe could not marry men of another.
- ◆ The Paulatak Arctic Charr Management Plan (Canada) opened with a dedication to an important indigenous fisherman, had a "background" section of one paragraph (many RCP plans spend half the plan in background information), detailed only rules and procedures relevant to the community such as "storage and processing" which prescribes that fishing nets must be checked twice per day during summer months. See copy in the Appendix for this chapter.
- ◆ The very successful Canadian Porcupine Caribou Management Plan that the community used for 15 years until conditions changed so much that they had to start planning over again. The plan was an oversized document so people could not so easily forget it, was revised every six months, and its structure provided space and time for reflection and responsiveness that generated countless innovations that came from individual and collective interests and knowledge.

## THE PLANNING PROCESS BECOMES CONTINUOUS

In an adaptively co-managed DICE world, the planning process changes dramatically, especially as the adaptive co-management relationship matures (see table on different stages of maturation on 9-27). Where RCP sees planning as a scientific study that requires extraordinary funding, publishing, protection of results, approval, and a plan expiration date, the new planning is on-going and continuous. A World Heritage Site may work with PUP once to start up a plan from scratch, but once the plan is up, that site should not likely ever need to make another plan of the same kind again. Since planning/doing/adapting/iterating is continuous, it must come from the regular

### Paulatuk Charr Management Plan



1998-2002

budget. Since planners do not have just one shot at doing the plan for the next five to ten years, they do not have to force everything they want into one monstrous wish-list of a budget. Since the plan continually changes and improves, they also do not have to get it right, perfect, and polished the first time as Rational Comprehensive Planners must. They can start the PUP with three indicators to monitor, not a full complement for all aspects of the plan. Once they learn to implement those three, then they can easily add a fourth and fifth and sixth indicator whenever they want.

With this kind of incremental planning, plan approval loses any sensibility. Before, approval came from a bureaucratic desire to control the process, ensure scientific integrity, and protect the investment. Now because the government is a fairly equal part of the planning community and shares power, it participates in the planning process and does not wait until the end to effectively declare, “I don’t care how many people participated in the process or how much consensus you might have achieved, we have the final word over this plan. We don’t trust you.” As well, would the government want to approve every incremental change? Could that kind of micro-management ever win the commitment of the entire community?

Since plans lose their trophy status, they can rightly take on a new role, not as end of process, but as simply documenting the ever changing commitments of the community. The focus shifts from the plan to the planning. As US President Dwight D. Eisenhower once said, “Plans are nothing; planning is everything.”

### **LEADERS TURN IN EGOS TO BE FACILITATORS**

As alluded to earlier, top-down, command-and-control, superhero leaders or heavy bureaucracies function poorly in the DICE World. They cannot adapt fast enough in the case of bureaucracies and de-emphasize the value of collective, team-based, horizontal, organizational learning. There will still be famous leaders such as Barack Obama, Nelson Mandela, Richard Branson, Hugo Chavez, and Wangari Maathai, but their fame will increasingly emanate from their ability to mobilize and inspire communities to action rather than carry out impressive, or depressing, individual feats.

Instead of giving all-knowing orders, now leaders create opportunities, motivate, give strategic direction, link players in the organization, nurture alternative futures, convene conversations, listen, pay attention, model learning, and reign in their egos.



Wangari Maathai won the Nobel Peace Prize for leading thousands to plant trees across Kenya in the Green Belt Movement ([www.greenbeltmovement.org](http://www.greenbeltmovement.org)).

### Three stages in the maturity of an adaptive co-management arrangement

Criterion	Early stage	Middle stage	Mature stage
Reason for being	Initiated by top-down intervention or self-organized in response to crisis	Successful self-organization to respond to management challenges	Adaptive co-management to address a series of challenges, including those not originally in the mandate
Degree of power sharing	Little or none, or only as formally mandated	Moving from two-way information exchange to decision-making partnership	Partnership of equals in formulating management problem and solution options, testing them, and making decisions
Worldview and sense making	Reacting to past events and resource crises	Making sense of new realities and beginning to look forward and to develop a consensus	Shaping reality by looking forward, planning, and developing a shared vision of the future
Rules and norms	Tend to be externally imposed, often with a disconnect between formal and informal rules	Beginning to develop own rules and norms, both formal and informal	Rules and norms tested and developed as needed; complementary relationship between formal and informal rules
Trust and respect	Relationships relying on formal arrangements rather than on mutual trust and respect	Learning to exercise mutual trust and respect, typically through high and low points in the relationship	Well-developed working relationships with trust and respect, involving multiple individuals and agencies
Horizontal links and networks	Few links and informal networks	Increasing the number of links and information sharing	Many links with partners with diverse functions; extensive sharing of knowledge through networks
Vertical links	Only as formally mandated	Sorting out of roles and functions of other levels; realization that information can flow upward as well as downward	Robust and redundant links with other levels of management authority, with two-way information flow
Use of knowledge	Uncritically using available technical and scientific data or local information	More attention to different kinds of knowledge and how to use them together	Valuing local and traditional knowledge; combining different kinds of knowledge and co-producing knowledge
Capacity to experiment	Little or no capacity or willingness to experiment	Willingness to experiment; developing capacity to plan, carry out, and learn from experiment	Experimentation leading to adaptation and innovation through several cycles
Learning	Instrumental learning	Building on the experience of instrumental learning; developing flexibility; recognizing uncertainty	Double-loop or transformative learning; learning to learn to deal with uncertainty

From Chapter 16 in *Adaptive Co-Management*

## PUP Launches a Process that Must Leave More than a Plan

PUP's first and most superficial goal is to help parks produce high-quality technical plans. While that is an important output, the ultimate product must be to help create mechanisms that will continue moving the protected area toward its goals and avoid that gains be set in stone with non-learning stagnation. After a full PUP intervention, hopefully parks will have the beginnings of a continuous planning process and avoid the temptation to start over with a new plan each time a new donor comes around.

Typical management plans violate most of these points by setting targets too high, building no system for reaching targets, no mechanisms for implementation, and leaving whatever they produce written in a hard-to-update plan. When in the mid-1980s CATIE (an international natural resources university based in Costa Rica, [www.catie.ac.cr/magazin\\_ENG.asp?CodIdioma=ENG](http://www.catie.ac.cr/magazin_ENG.asp?CodIdioma=ENG)) technicians helped the Kuna Indians of Panama to create a high quality rational comprehensive management plan for their territory in San Blas, the plan failed. According to participant and anthropologist Mac Chapin, the plan failed because outside advisors did not help the Kuna develop a viable organization with capacity to manage a project or implement a plan. In fact, they did not even consider administrative ability when they undertook this expensive project.

### PLANNING IS A FACILITATED CONVERSATION

PUP envisions the planning process then as a facilitated conversation to restore or integrate the protected area community, creating a vision of a healthy community that can not only problem-solve but create its own desired future. That is a high task and not one that PUP can embody or achieve alone. Its resources and materials largely center around the 11 modules with some assistance in nurturing community and helping it, especially protected area managers, adopt techniques that move toward continuous planning and doing.

A lot of protected areas don't have time for this, aren't aware of the need to convert their stakeholders into citizens who feel accountable and responsible for their piece of heritage. Ideally PUP can find sites with initial conditions such as

- ◆ Readiness when sites are not distracted from planning by major financial, political, or natural crises.
- ◆ Protected areas with a functioning community char-

- acterized by some level of trust and respect.
- ◆ Understanding and disposition such that managers should already feel frustration with typical planning even if they don't know why. They should then be open and accepting of a new vision not based entirely on centralized planning and science, even if they have never experienced an alternative.
  - ◆ Managers who feel some humility before the uncertainty and messiness of the DICE World.
  - ◆ Sites that can dedicate a public use coordinator to liaise between or bridge the PUP Program and the planning community.

### **PUP TECHNICAL ASSISTANCE OFFERS SEVERAL COMPONENTS**

PUP and its cooperators need to make four different kinds of contributions to help a protected area community transition to a new paradigm:

- ◆ New perspectives and beliefs of individuals (adaptive co-management, teamwork, power of collective action)
- ◆ New skills of individuals (learning, planning, facilitating)
- ◆ New culture of the community (DICE, organizational learning, cooperation, trust, respect, keeping pace with rapidly changing world)
- ◆ New institutions of community (programs, agencies, co-management, continuous planning structures)

PUP mentors accompany public use coordinators from nurturing the protected area community, to forging the first public use plan, to implementing it, to adopting new policies, tools, and skills necessary for adaptive management to take root. PUP can help protected areas start this process, but these areas must take the initiative to recruit new partners, find new funding, and experiment with new practices. PUP too has much to learn, much to try, much to develop. We all do.

### **THERE ARE VARIOUS IMPLEMENTATION TECHNIQUES**

Aside from the many broad ideas necessary to reach the new vision of planning, here we share some specific tools that parks can use to facilitate plan implementation. Note that PUP has many other techniques built into the process and design of modules.

<sup>1</sup>Kaizen (Japanese for “improvement”) has been adopted into English referring to a philosophy or practices focusing on continuous improvement in manufacturing activities, business activities in general, and even life in general. When used in business, kaizen typically refers to activities that continually improve all functions of a business, from manufacturing to management and from the CEO to the assembly line workers. By improving standardized activities and processes, kaizen aims to eliminate waste. Kaizen was first implemented in several Japanese businesses after World War II and has since spread to businesses throughout the world.

## ***1. Big Wall Calendar***

Very often planners tuck action plans inside documents out of sight, out of mind. As well they may be hard to update if simply printed. One technique for overcoming this is the big wall calendar. You might use a cork board, white board, or cards on a wall, but the entire staff, ideally the entire community, must see this calendar with tasks, responsible parties, and due dates every day they go to the office.

During every weekly meeting, staff updates the wall, they slide new names and new tasks into position, change dates, and put checks next to completed tasks. Toyota Corporation uses a strategy whereby managers put similar tables on their walls. If someone falls behind in a task, everyone knows. But they don’t do this to embarrass people into efficiency and compliance. Rather in their culture of **Kaizen** (“improvement”)<sup>1</sup>, this kind of table helps to identify problems (thus the delays) and to form teams to solve those problems.

It would be wise, if the protected area uses a virtual plan as well, to have a mirror action plan/calendar on a website so all community members can monitor progress of tasks. One principle from social marketing is if people make public commitments to do something (for example to accept a task that is then placed on a calendar on a public website), they are much more likely to fulfill it than if they agree behind closed doors or on a piece of paper that few see.

## ***2. Frequent Updates and Evaluations***

Module 7 on monitoring already includes such provisions. It assumes that a plan lives or dies in the first six months and thus schedules evaluation meetings after month 1, 3, 6, and 12. It assumes these are major revisions of the entire plan contents. These revisions would be in addition to the weekly updates of the action plan. After such evaluations become part of the culture, perhaps, they could be done every six months such as the Porcupine Caribou Management Plan did. These evaluations must also appear prominently on the action plan for all to see. You can see how the traditional annual operating plan that many countries use as their single implementation tool occur too infrequently, especially when the plan is young and vulnerable.

## ***3. Weekly Staff Meetings***

Like all techniques if protected areas do not currently do this, it will take discipline to establish the habit. During these meetings teams practice the skills and techniques necessary for adaptive co-management. Only by frequent practice can they hope to adopt the new culture. PUP mentors may help design these meetings and also sit in to offer feedback on particular skills and strategies. Minutes

of meetings should be kept to document arguments, decisions, and techniques employed.

### ***3. Leaders Model New Culture***

Leaders must actively model the practices they want to take root. They need to expose their mistakes, reward people for reflection, be transparent and avoid traditional signs of power (standing up while others sit, talking louder than others, interrupting others, having a prominent place superior to others, etc.), suppress egos, show respect, listen very carefully, share important information, involve people in decision-making. If they only articulate these principles but do not practice them, staff will notice immediately. At Rare several years ago, leadership often spoke about a balance between personal life and work as important for mental health, yet the beloved and iconic vice president traveled and worked around the world for 240 days a year, thereby establishing both the organization's pace and culture, regardless of declarations to the contrary.

### ***4. Implementation Committee***

In the Osa Peninsula in Costa Rica, community stakeholders form committees to ensure implementation of area management plans. Such oversight committees can be effective especially if they wield some enforcement power.

### ***5. Transparent Finances***

The more transparent the finances, the more trust the protected area can build with the community and the better grasp people will have of resources available for their work. Financial reports should be shared at least quarterly with staff.

## Implementation Isn't about Planning, It's about Managing

Just like planning isn't about plans, implementation isn't about planning. It's about managing.

Thinking and doing are two sides of the same coin.

Planning and managing are two sides of the same coin.

Researching and practicing are two sides of the same coin.

In fact all three coins are the same coin.

All the techniques and skills we have thus far discussed apply to managing special heritage places whether on the World Heritage List or in the backyard. PUP ostensibly deals with public use planning, but it really deals with planning in general, and really about managing in general.

A plan should be nothing more than a record or vehicle for recording on-going consensus or conflicts in management. Effective managers must do many things whether planning, budgeting, implementing, developing human resources, marketing, or answering to politicians. But these tasks require adaptive management and when they have a community around them (which is almost always), then adaptive co-management. Welcome to the new paradigm of heritage site planning.

# Additional Reading

## Classics

- ◆ Schön, Donald. 1983. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.
- ◆ Senge, Peter M. 2006. *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York: Currency.
- ◆ Forester, John. 1989. *Planning in the Face of Power*. Berkeley: University of California Press.
- ◆ Wilson, James. 1991. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books.

## Others

- ◆ Armitage, Derek, Fikret Berkes, & Nancy Doubleday. 2007. *Adaptive Co-Management: Collaboration, Learning, and Multi-Level Governance*. Toronto: UBC Press.
- ◆ Kohl, Jon and Stephen McCool. Being written. *The Future Has Other Plans: Getting to the bottom of why modern park and land use planning have shipwrecked and how to navigate the future of a messy world*. This book goes into much more detail and uses a different framework to understand the change to a new planning paradigm.