

ETPS

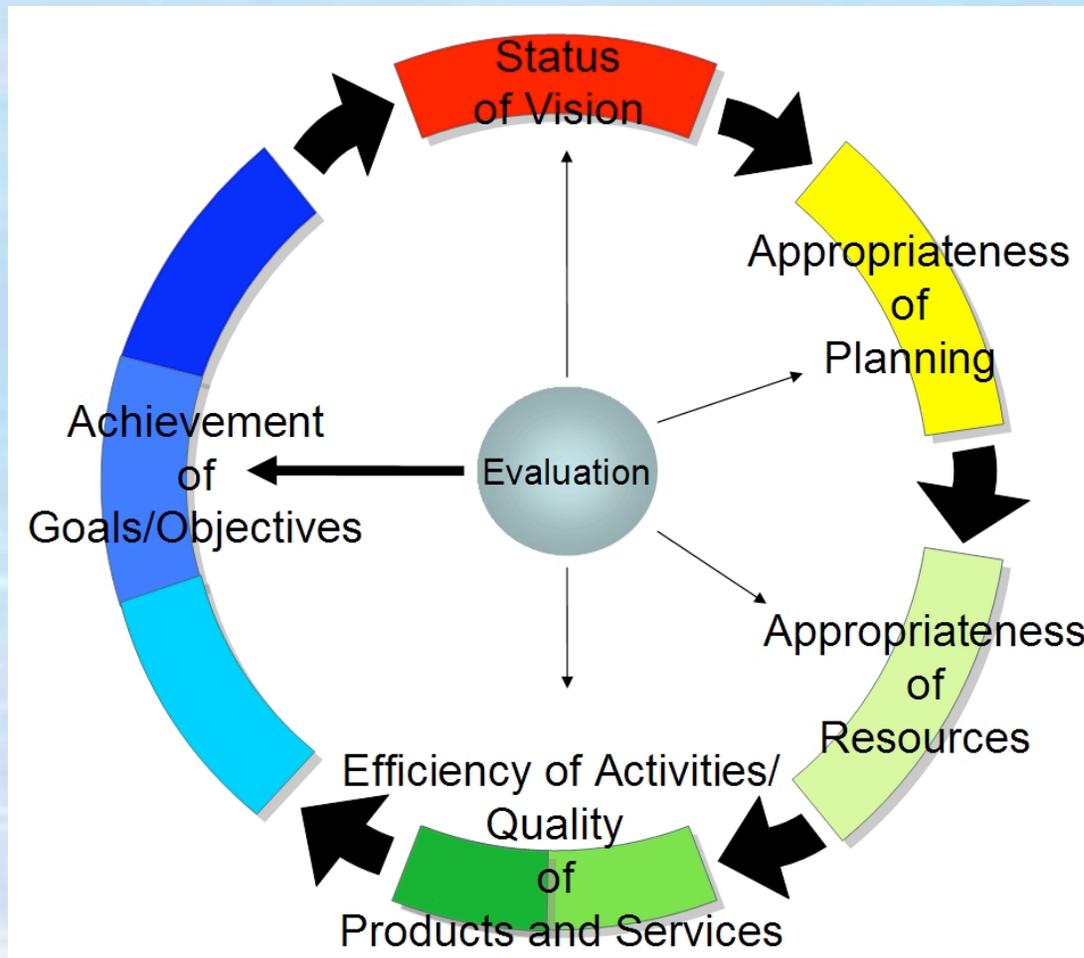
TRAINING

Eastern Tropical Pacific Seascape Training

Module 2: MANAGEMENT PLANNING Part 2

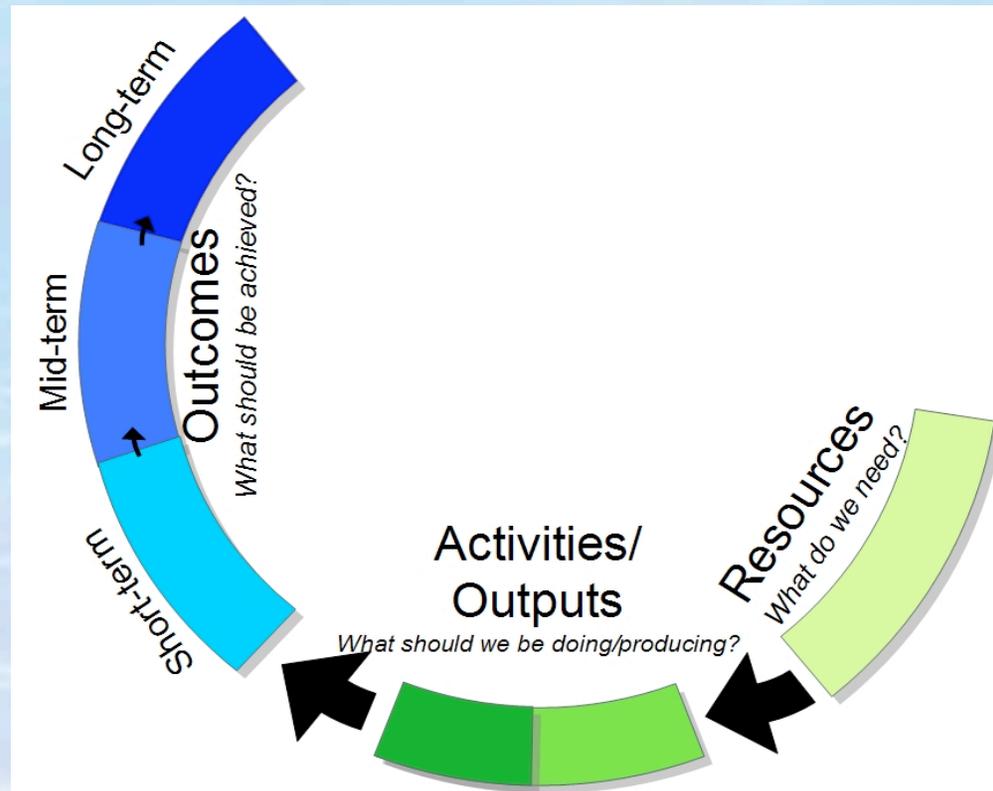


What can be evaluated?



(Adapted from Hockings et al., 2000)

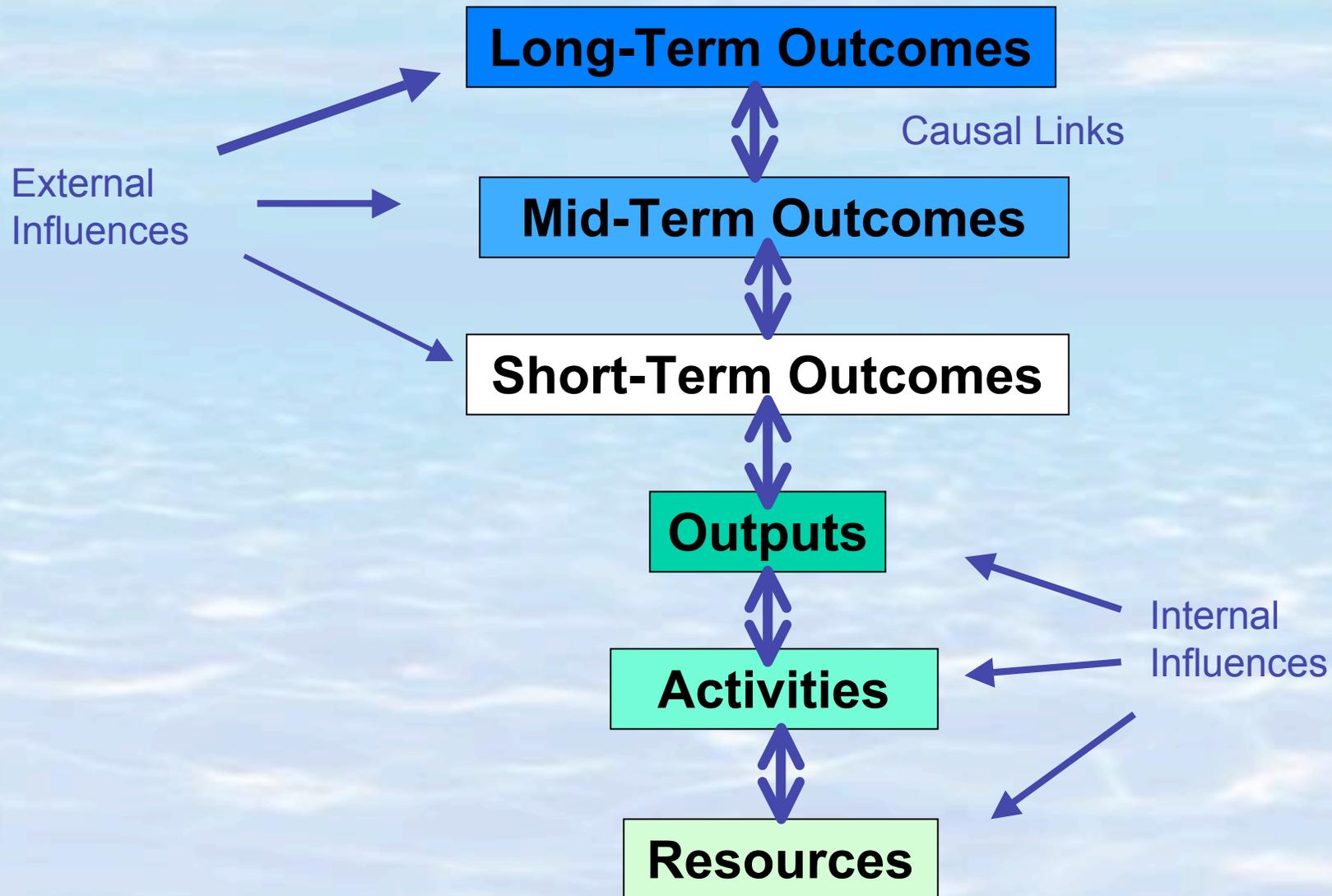
Program Design



Program Design

- **What did you do last week at your MPA?**
- **What are your goals for your MPA?**
- **How are the two connected?**

Planning Process



Planning Process Definitions

Long-Term Outcomes – describe the intended ultimate impacts or objectives of the program on the issues. They might be social, economic, environmental, or individual consequences.

Mid-Term Outcomes – describe expected impacts on the environment or audience's behavior based on the continuation of the program or a number of projects.

Short-Term Outcomes – describe the expected immediate impacts of the program or project (audience reactions or abilities, change in the environment).

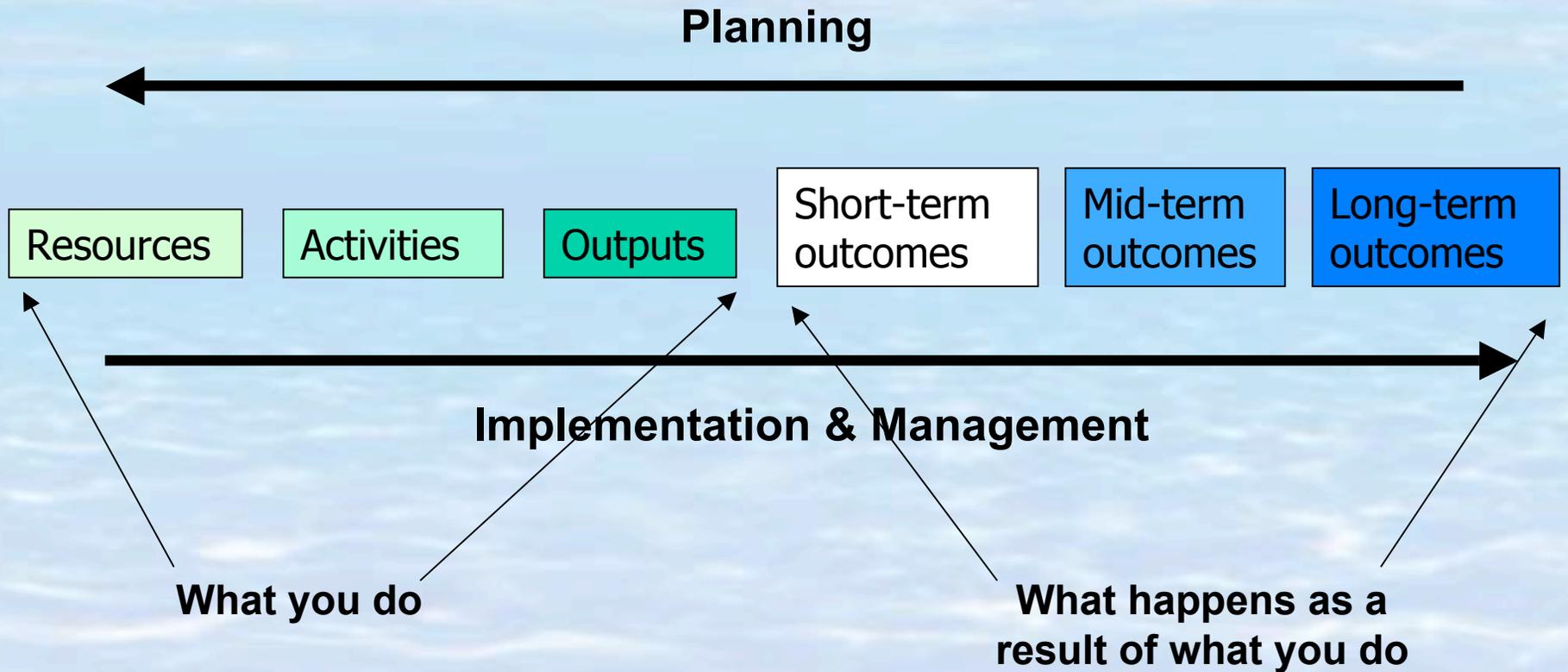
More Pieces

Outputs – physical products resulting from activities needed to achieve the desired outcomes.

Activities – what you spend your time doing in order to achieve the desired outcomes, produce the necessary outputs, or obtain resources.

Resources – the time, money, human resources, office space, utilities, equipment, supplies, management and partner support, etc. needed to accomplish the program.

Planning Process



The Planning Process

Step 1. Identify the impacts (outcomes) of the project on the intended audience and/or issue (as long-, mid- and short-term outcomes).

Step 2. List the activities and outputs needed to achieve the outcomes

Step 3. List the resources needed and/or available

Step 4. Read the model left-to-right as a series of “If . . . then...” statements.

Step 1. What are the Desired Impacts (Outcomes)?

- **Desired long-term outcome:** Sister will be comfortable snorkeling
- **To get to that long-term outcome, she must first have this outcome:** Have intermediate snorkeling skills, respect but not fear water environment
- **To get to that mid-term outcome, she must first:** Be able to demonstrate breathing through snorkel, clearing mask, diving underwater and clearing snorkel, swimming with fins, and identifying organisms in water; recognize potentially harmful organisms; snorkel in a variety of water conditions.

Outcomes

Short-term outcomes

Demonstrate basic snorkeling skills

Identify and respect organisms

Experience variety of water conditions

Mid-term outcomes

Snorkeling skills
Comfort in water

Long-term outcomes

Comfortable snorkeling

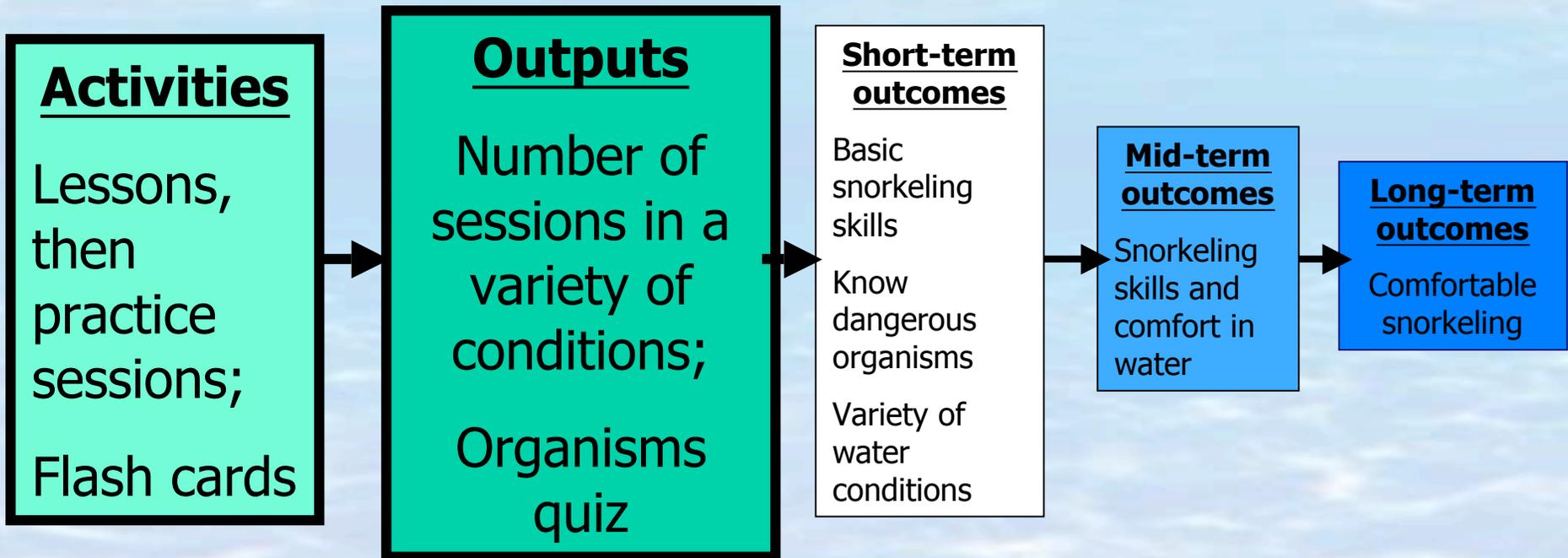


What You Do

Step 2. What Activities and Outputs Contribute to Achieving Those Outcomes?

What are the most effective activities, techniques, information, or other tools that will help move the audience or resource from its current state to the desired state (the expected outcome)?

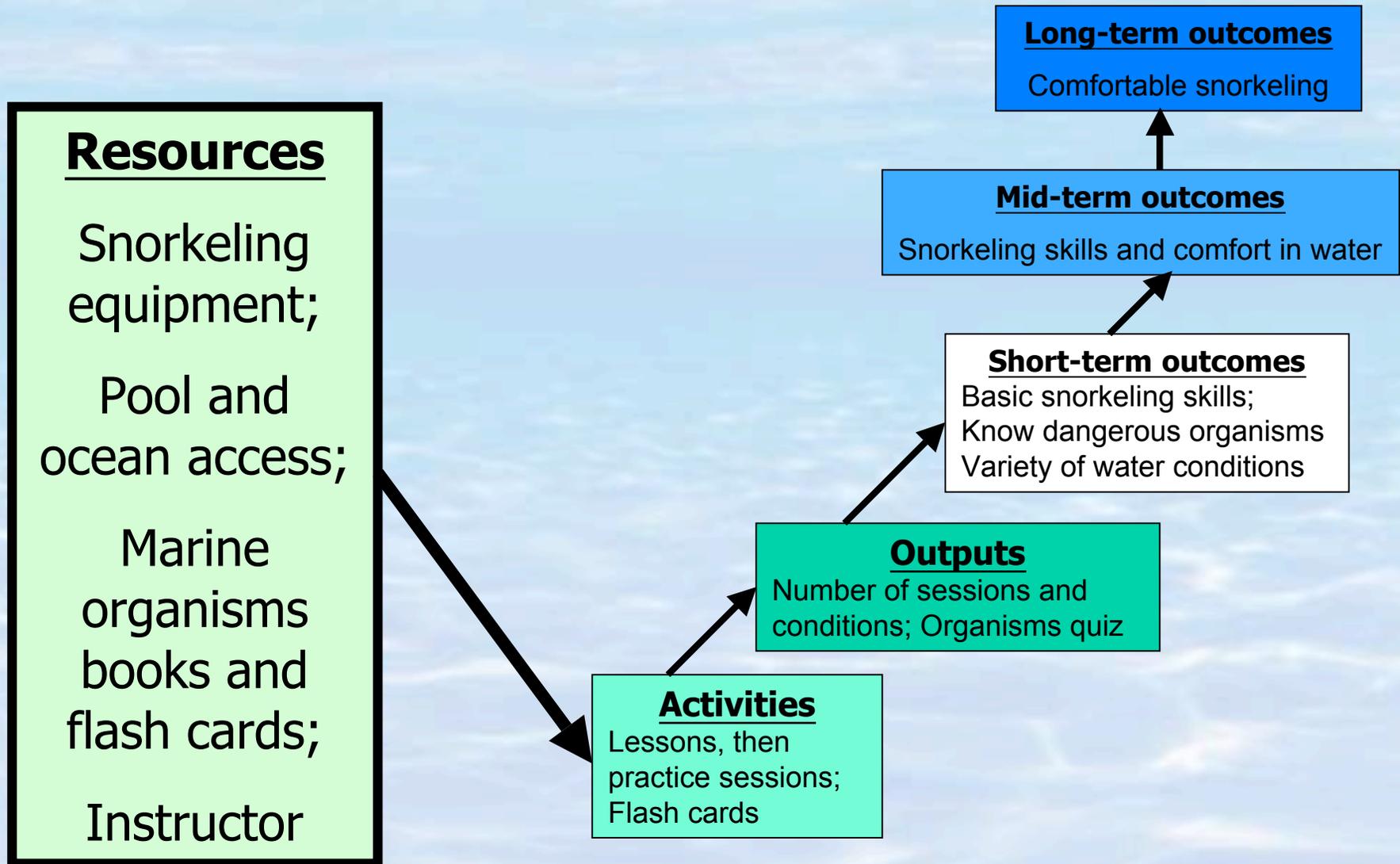
Activities and Outputs



Step 3. List the Resources Needed and/or Available

- **What will be needed to achieve the desired impact?**
- **What is available?**
- **How can you get the difference?**
- **If you can't, then go back to step 1.**

Resources



Objectives

Step 4. Does it link together?

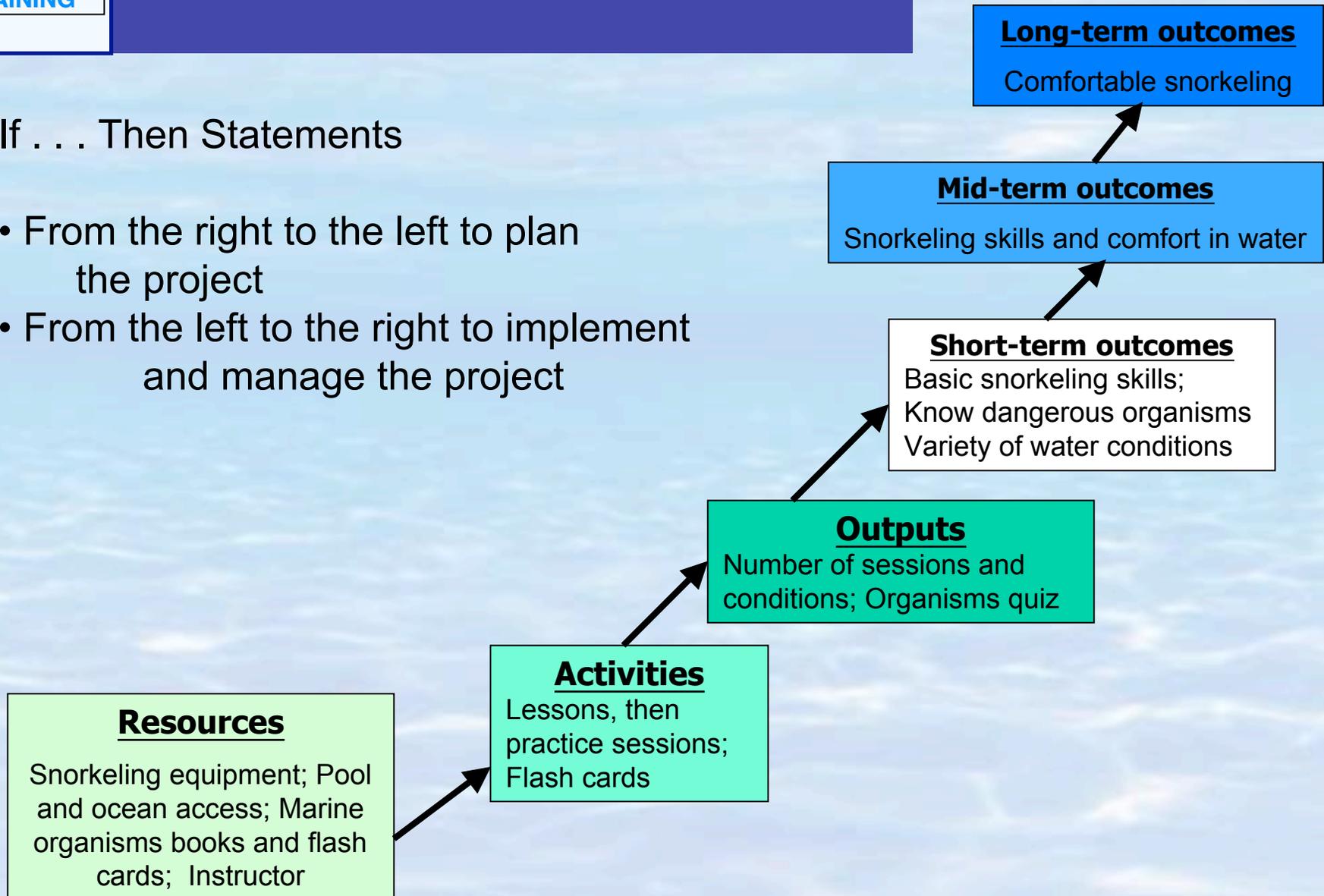
- Do the statements (boxes) in the model make sense when read from left to right?
- Can you make logical connections between each activity and output and an intended outcome?
- Are sufficient resources available to achieve the outputs?

If you answer NO to any of these, review the plan, determine what isn't logical, and amend as needed

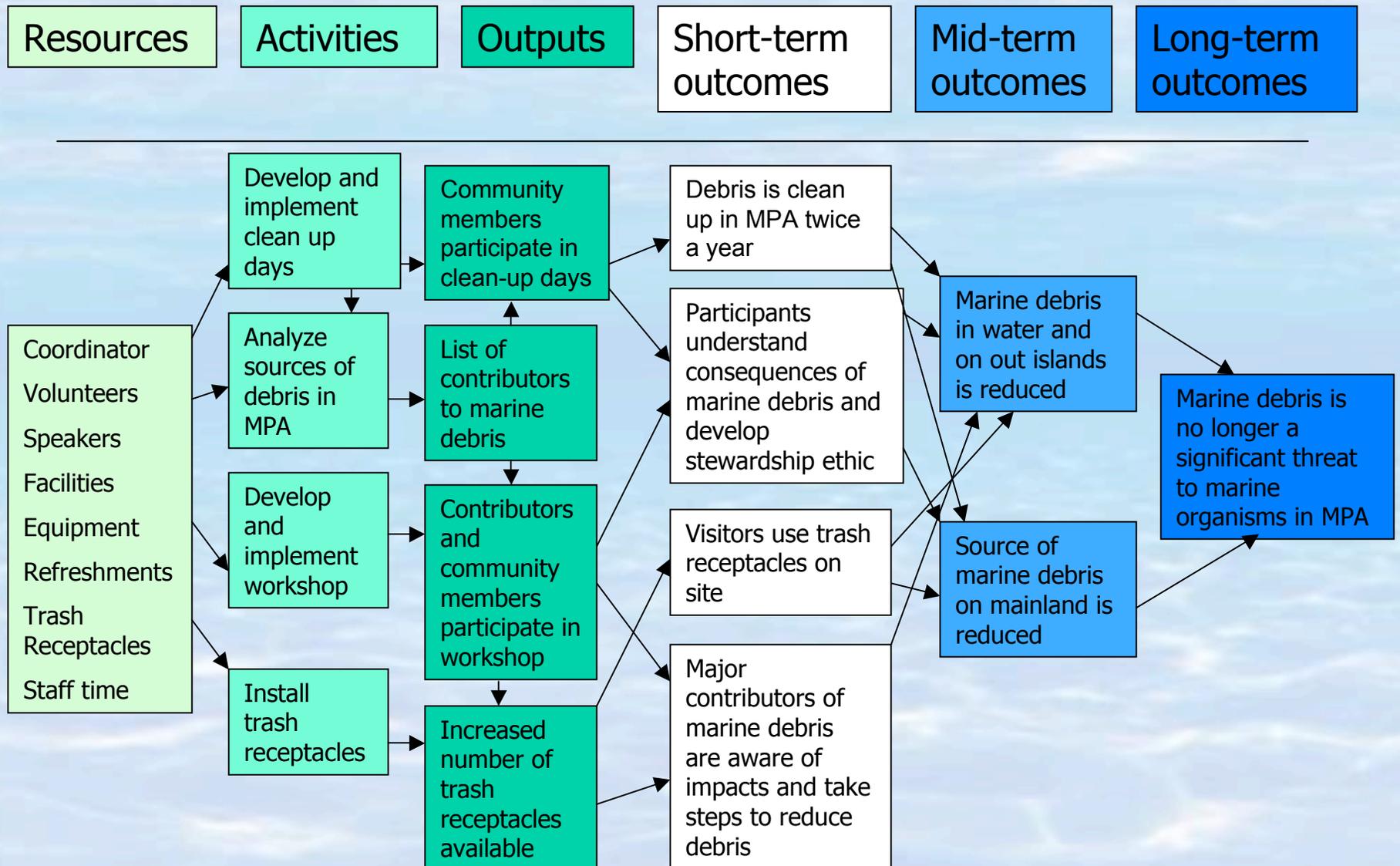
Does it make sense?

If . . . Then Statements

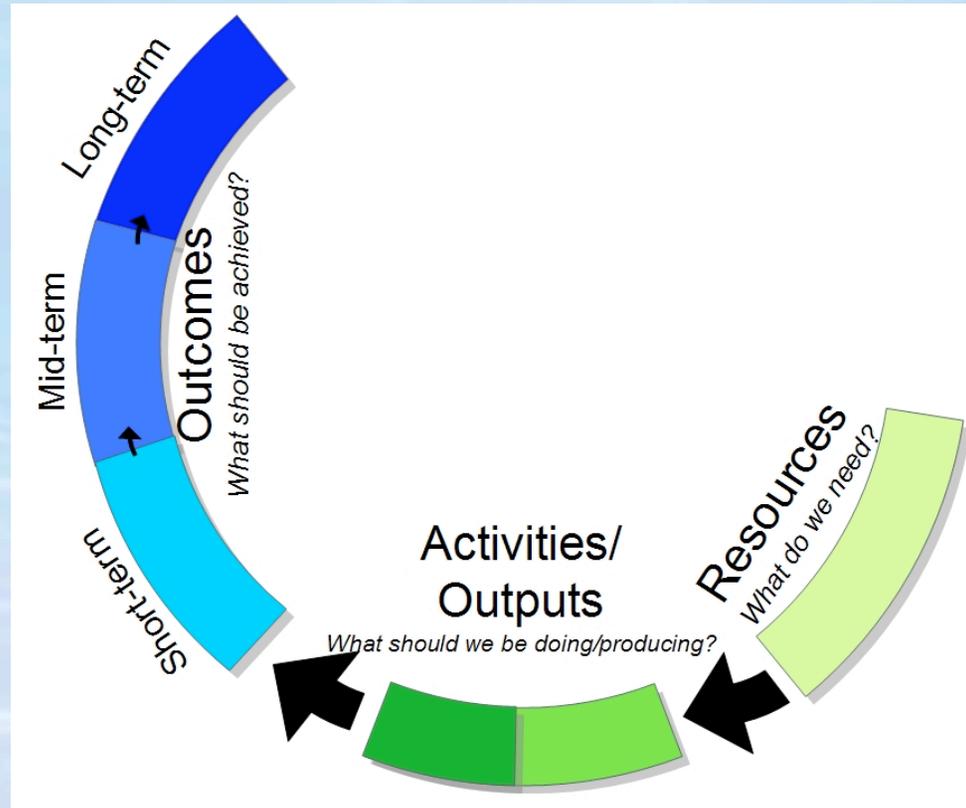
- From the right to the left to plan the project
- From the left to the right to implement and manage the project



Reducing Marine Debris in MPA



Practice Planning Process



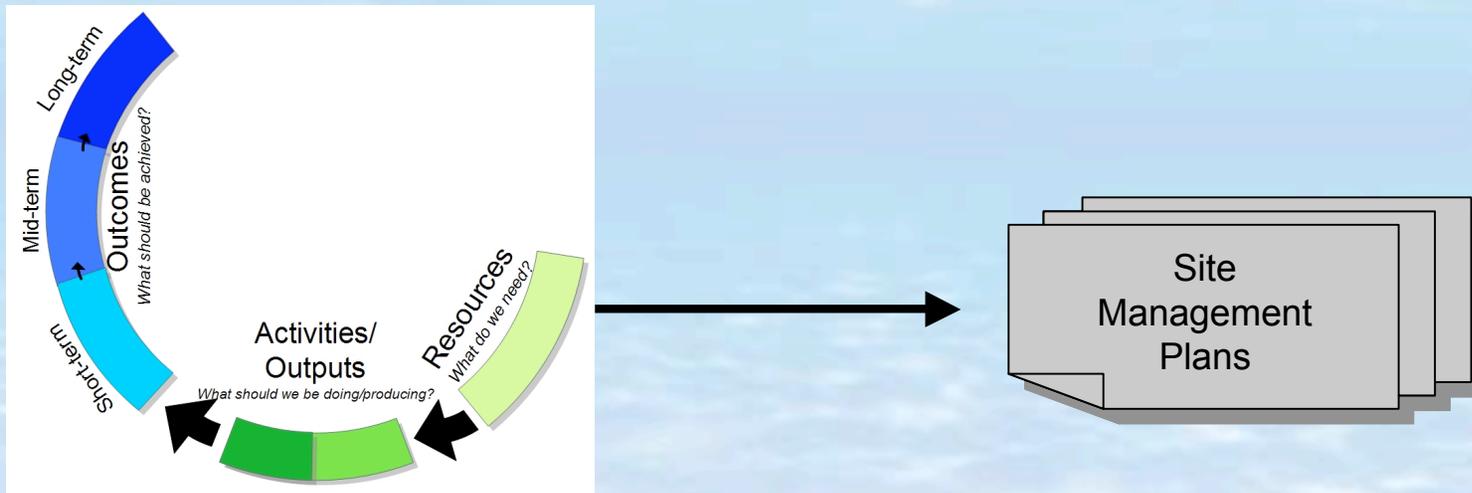
Benefits of the Planning Process

- Shows how all the components fit together
- Demonstrates how elements contribute to the mission
- Helps connect how resources are used and impacts from their use
- Helps identify appropriate indicators of performance effectiveness
- Basis of planning, evaluation, and management decisions

Common Pitfalls in Creating and Using Planning Process

- **Get hung up on the language**
- **Can work in columns/rows and forget the connections are what make it LOGICAL**
- **Confuse performance measures with evaluation**
- **View as linear**
- **Mix scales (different level of detail at different levels of organization)**
- **May only want it as a “paper product”**

Planning Process to SITE PLANS



Site Plan Content Outline

Site Goals

Current and Emerging Issues

- Summary of important site specific issues impacting preserve
- Authorities (summary; any variance for site) Management Strategies

Quantifiable management strategies & objectives

- Monitoring
- Education and outreach
- Access and use
- Restoration
- Stakeholder engagement (volunteers)
- Land acquisition priorities

Background

- Boundaries
- Brief historical information highlighting changes since last plan
- Demographic information and trends
- Brief info on cultural (archeological), geophysical resource
- Brief description of what resources

Appendix

- stakeholder involvement in plan development
- Lists of listed species, exotic species
- Characterize state of knowledge about resources; more detailed resource information
- List of partners, management agreements

Common Pitfalls of Site Planning

- **Most strategic/site plans have broad goals and actions (benefits/limitations?)**
- **Most strategic/site plans have many priorities or no priorities**
- **Most strategic/site plans do not incorporate resources required to complete actions**
- **Most strategic/site plans focus only on the biophysical goals**
- **Unable to assess “success” of efforts**

Planning Process Activity

Step 1.

Identify the impacts (outcomes) of the project on the intended audience and/or issue (as long-, mid- and short-term outcomes).

Step 2.

List the activities and outputs needed to achieve the outcomes

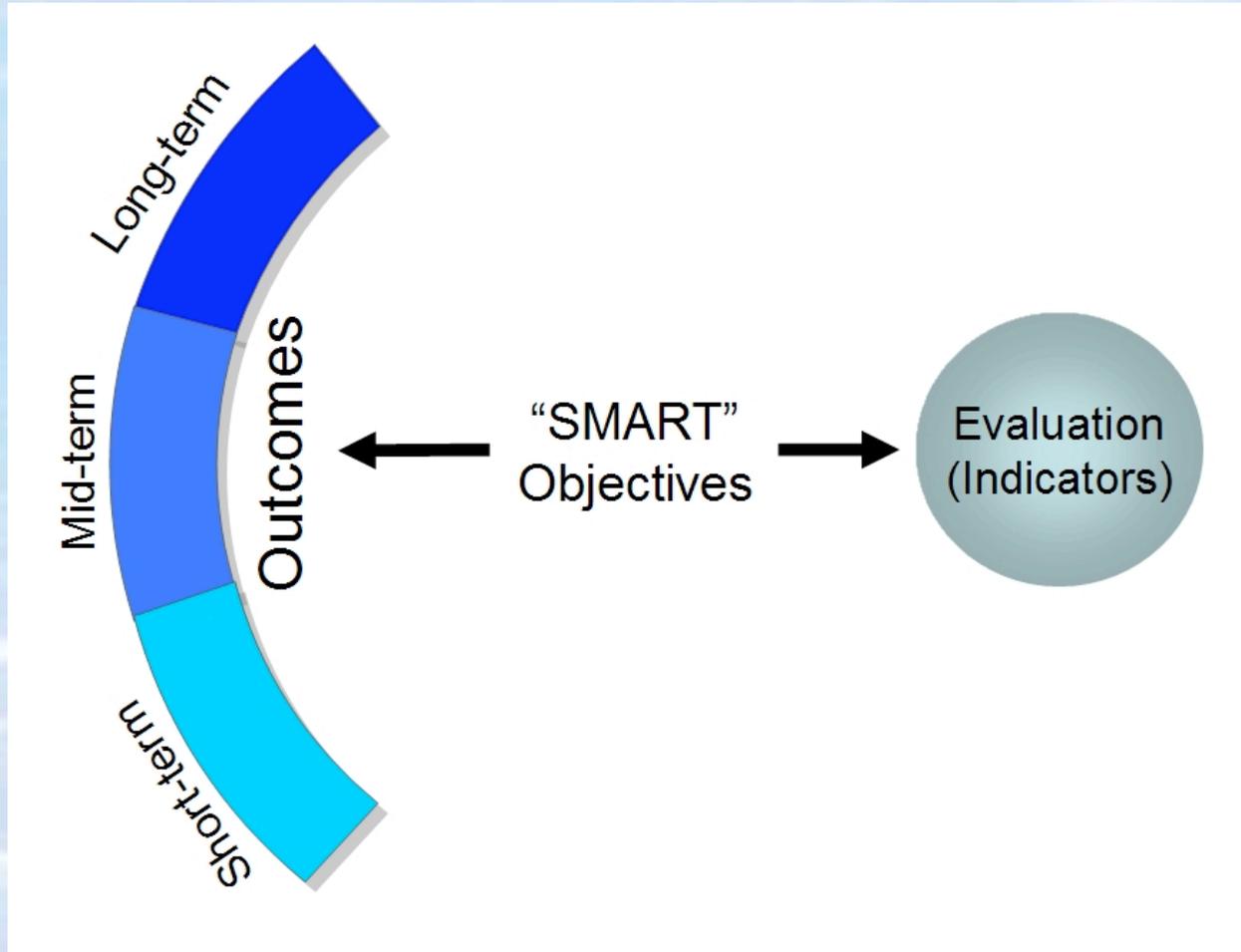
Step 3.

List the resources needed and/or available

Step 4.

Read the blocks left-to-right as a series of “If . . then...” statements.

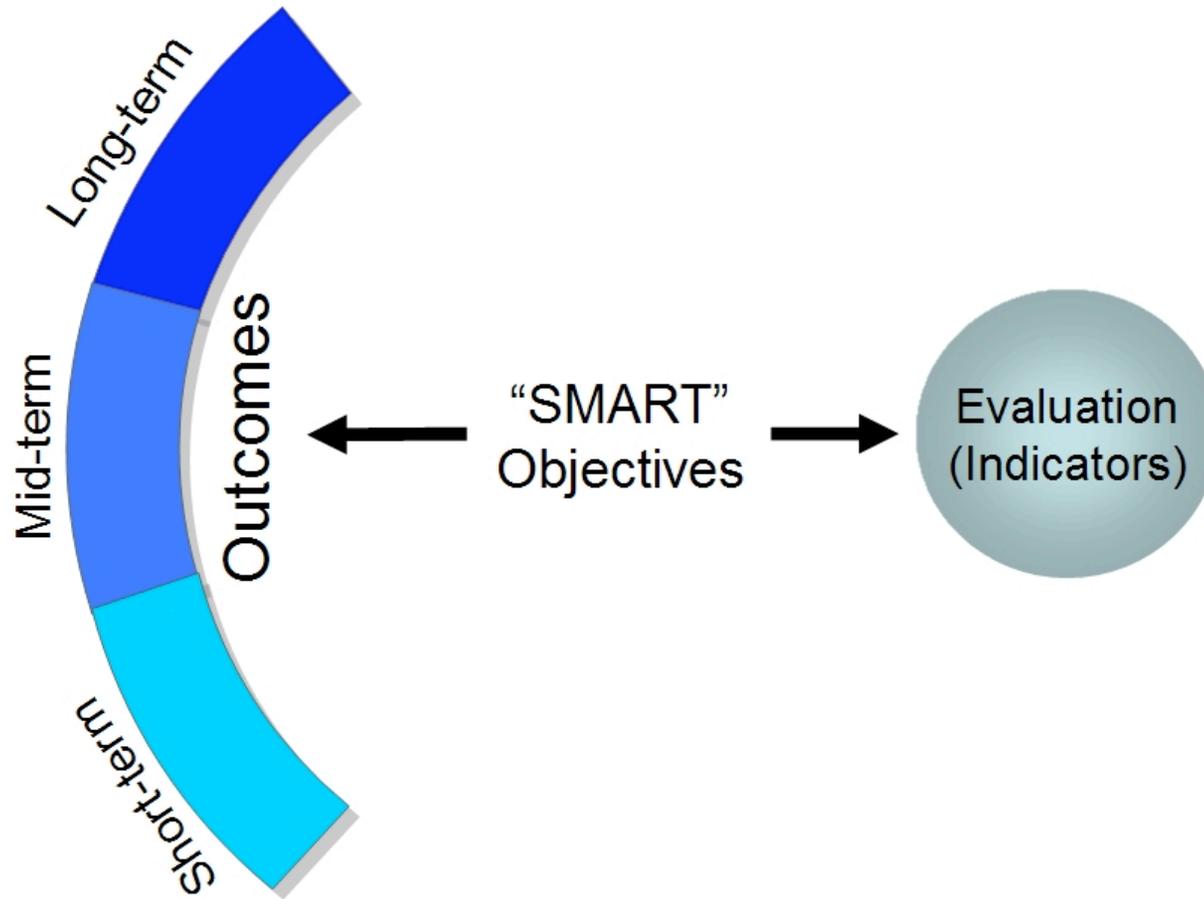
Goals, Outcomes, Objectives, and Performance Measures



Are You Being Effective?

- Are you making progress on your goals?
- Are your (short, mid, and long term outcomes being achieved?
- Are your outcomes written as smart objectives (measurable)?
- Are you monitoring your progress?

Program Evaluation



Why Evaluate Effectiveness?

- **Promoting adaptive management**
Audience: Management staff
- **Improving project planning**
Audience: Other programs staff
- **Promoting accountability**
Audience: Agencies, organizations, stakeholders

Evaluation Continuum

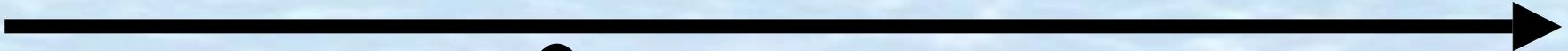
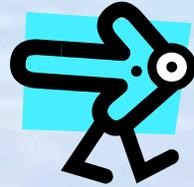
No feedback

Anecdotal

Performance
Monitoring

Evaluation
(Why)

Evaluation
Research



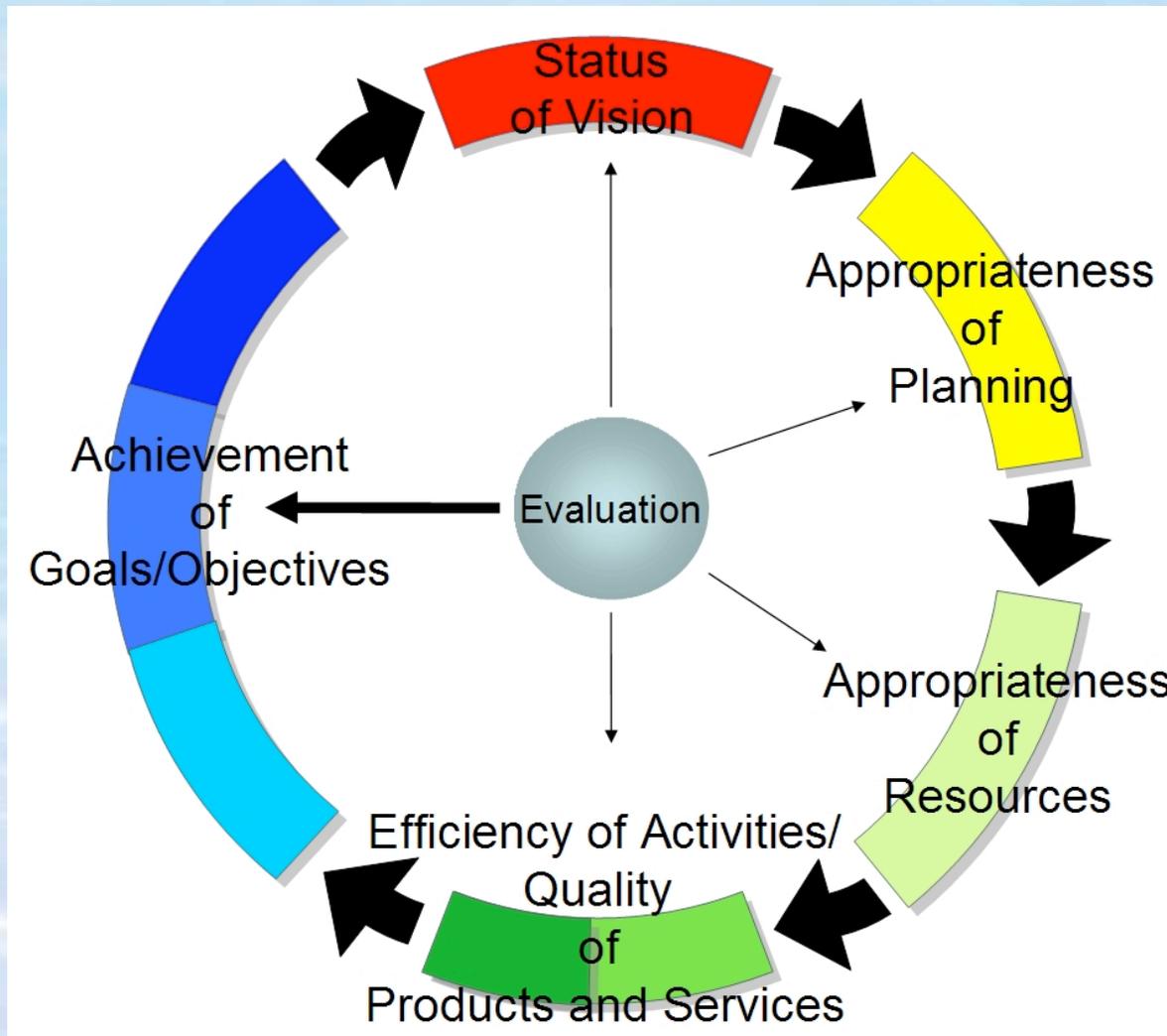
Monitoring

- **Gathers data consistently**
- **Shows trends**
- **Tells us what but not why**
- **Indicates there may be a need for further study if changes are occurring**

What can be evaluated to determine if an MPA is effective?

- **Design and context of the site/system**
- **Appropriateness of management systems and processes (activities)**
- **Achievement of objectives and goals**

What can be evaluated?



(Adapted from Hockings et al., 2000)

Objectives

- Objectives should describe the intended impacts, or results of the program on participants and/or the issue
- Objectives are a specific measurable statement of what must be accomplished to achieve goal
- Defined within a time period and achievable

SMART Objectives

- **Specific**
- **Measurable**
- **Audience or issue focused**
- **Reasonable**
- **Timely**

Writing Objectives

Ugly:

Teach seabird identification

Bad:

They can identify seabirds

Good:

After the program, participants will be able to correctly identify (by common name) at least four species of seabird in the field

- C. Parsons

Writing Objectives

Ugly:

Restore wetlands

Bad:

Wetlands are restored

Good:

Within five years, 80 percent of the saltwater marsh in the local MPA will be restored to its 1970s condition

Planning Process to Effectiveness Indicators

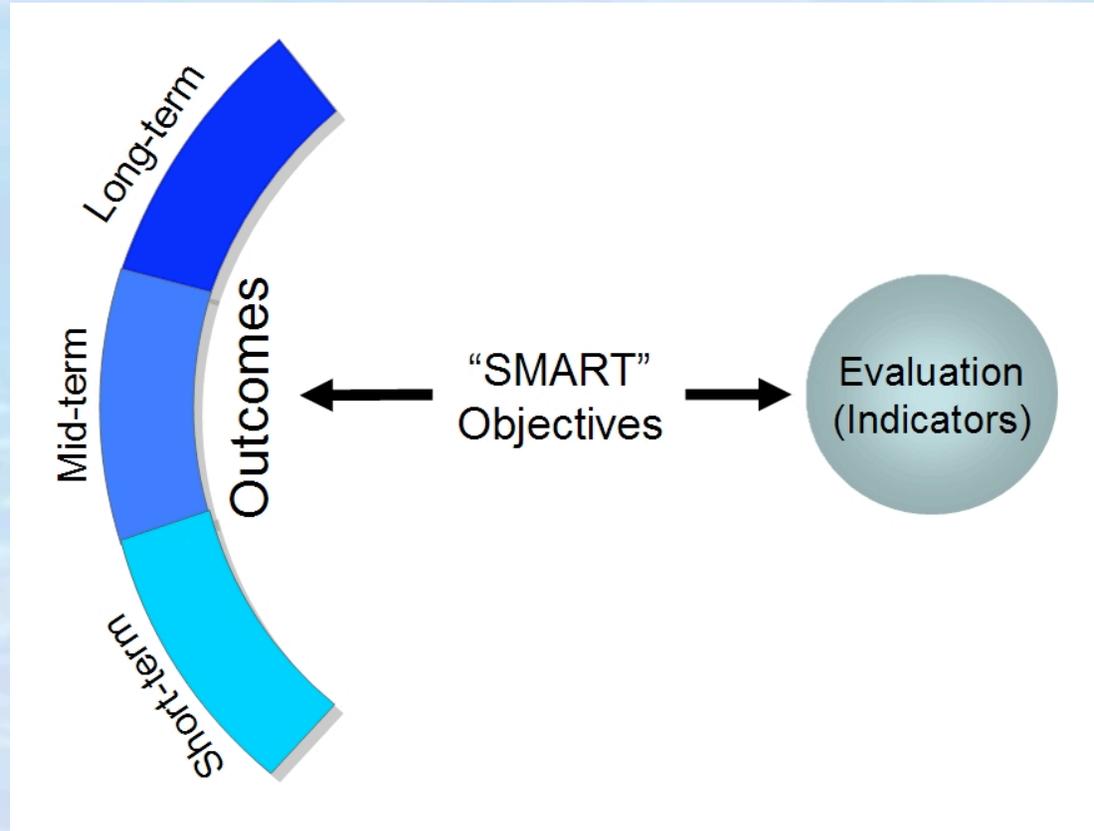
- Planning elements provide an easy starting point for the selection of meaningful and realistic indicators to monitor effectiveness
- You must understand the overall program in order to identify what needs to be measured
- Individual programs can contribute to the larger scale goals

Planning Process outcomes → Objectives → Indicators

Writing SMART Objectives

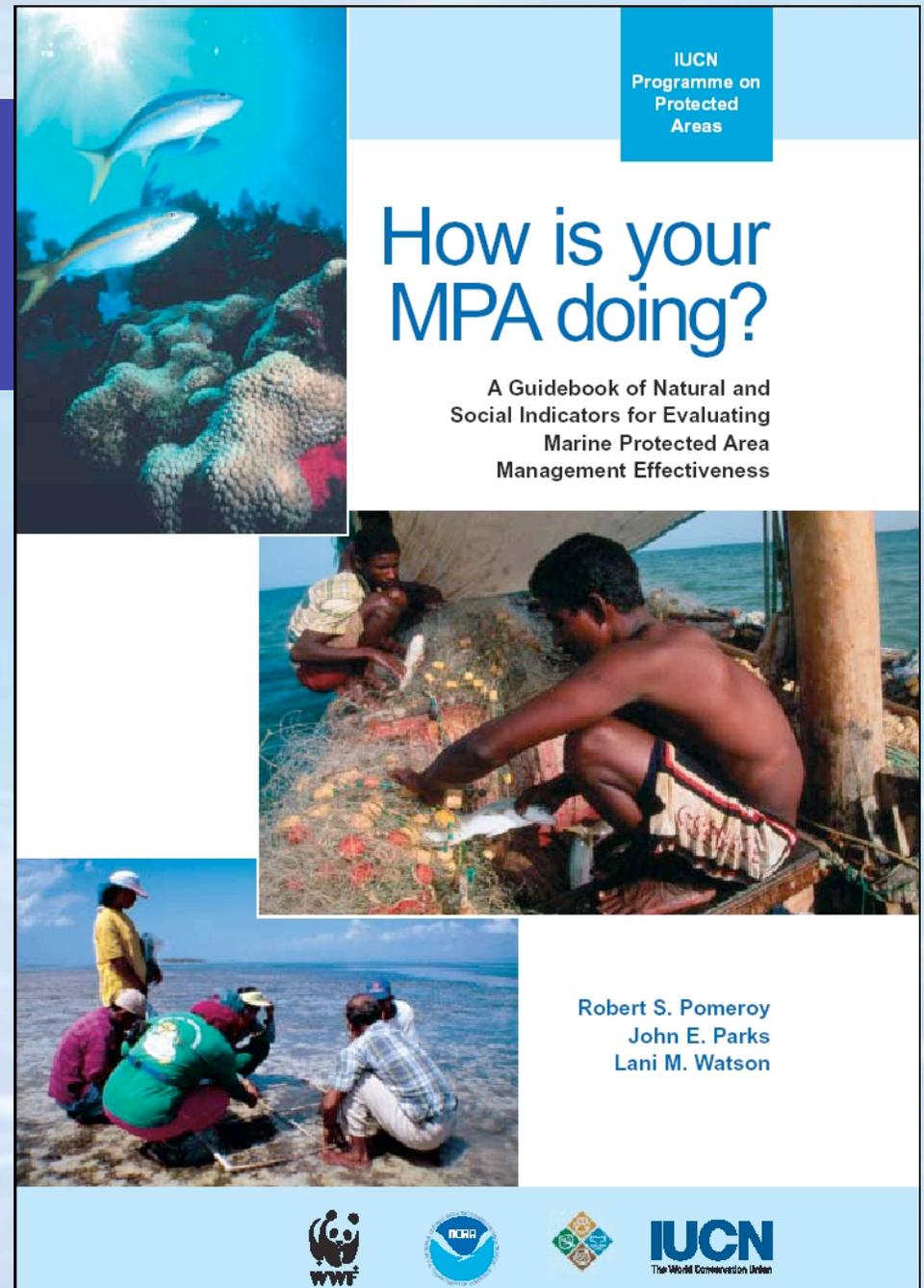
- **Specific**
- **Measurable**
- **Audience or issue focused**
- **Reasonable**
- **Timely**

The Evaluation Process



Marine Protected Area Management Effectiveness Initiative

- World Wildlife Fund (WWF)
- National Oceanic and Atmospheric Administration (NOAA)
- World Commission on Protected Areas (WCPA-Marine)
- World Conservation Union (IUCN)



Developing the Guide Book

Purpose

To help managers evaluate effectiveness for the purposes of adaptive management

Audiences

- Managers
- Fishermen
- Local residents
- Decision makers
- Nongovernmental organizations
- Educators and researchers

Guidebook Indicators

Biophysical (n=10)

Socioeconomic (n=16)

Governance (n=16)



Generic Indicator Outline

(example: B3, page 67)

- **Name**
- **Definition**
- **Goals/objectives**
- **Difficulty rating**
- **Why measure it?**
- **Requirements**
- **How to collect**
- **How to analyze/interpret**
- **Outputs**
- **Strengths and limitations**
- **Example**
- **Useful references**

What is 'focal species abundance'?

Species **abundance** is the number of individuals of a particular species found to occur within and outside the MPA. Species abundance is a commonly used proxy for population size and is thought to reflect the status of a species' population within a specific location; for example, whether or not the population is growing over time. The density of a species is determined by examining the abundance within a defined (unit) area. Species abundance is one of the most widely used biological 'success' measures of management effectiveness.

A **focal species** is an organism of ecological and/or human value whose management through the MPA is of priority interest. There are several



Focal species abundance can also be defined as how commonly a particular species is found relative to other species within the same community, i.e. B4.

different types of focal species that can be identified for a particular MPA. With many MPAs, their goals are linked directly to the need to protect or

Why measure it?

The protection, enhancement and management of populations of focal species are common reasons for using MPAs. Maintaining sustained numbers of focal species through time is widely seen to be a key MPA use. As a result, monitoring the abundance of populations of focal species is one of the most common activities undertaken by MPA managers. Fortunately, the basic methods to compare the number of individuals observed within versus outside of an MPA are relatively uncomplicated and easy to

use. As populations of focal species within an MPA are protected and allowed to grow, they may migrate, or 'spill over', into adjacent protected areas. This increases

How to collect the data

Before data collection can begin, the evaluation team will need a list of which focal species in and

Requirements

- A list of the focal species (reviewed and approved by stakeholders).
- Designated sampling sites inside and outside the MPA.
- An adequate number of trained staff and/or volunteers in both survey methods and taxonomic identification.
- A boat (with safety equipment) and engine.
- Survey tools (e.g. tape measure, compass, towline, submersible writing slate).
- SCUBA or snorkelling equipment.
- A handheld global positioning system (GPS).
- Submersible digital camera (to verify species identifications).
- Advanced (if applicable): aerial photography, satellite imagery, and geographic information systems; small airplane or helicopter (for large, wide ranging organisms); tagging and telemetry equipment; and digital video camera and underwater housing.

Box B1

TYPES OF 'FOCAL' SPECIES

(adapted from Noss, 1990)

- Endemics – species that are only found to occur naturally in the waters near the MPA.
- Exotics – non-native species that are of concern due to their negative effects on the local ecology. For example, introduced algae that aggressively spreads and
- Targets – species of interest due to their non-extractive use value. For example, whales that bring tourists to the area. These species will be priorities for management, therefore not all be focal species.

Relates to goals and objectives

GOAL 1
1A 1C
1D 1E
1F

GOAL 2
2C 2G

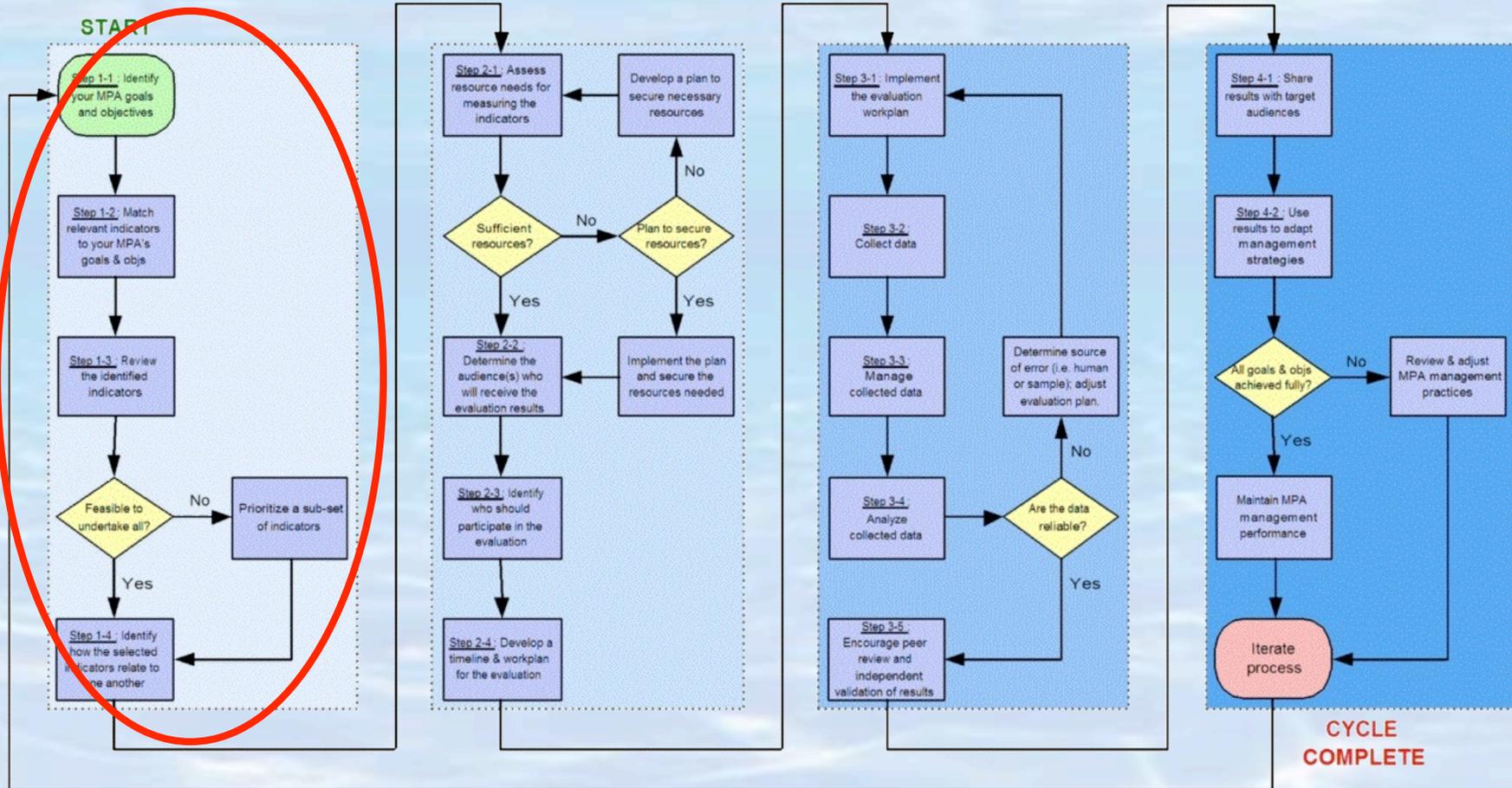
GOAL 3
3A 3D

GOAL 4
4D

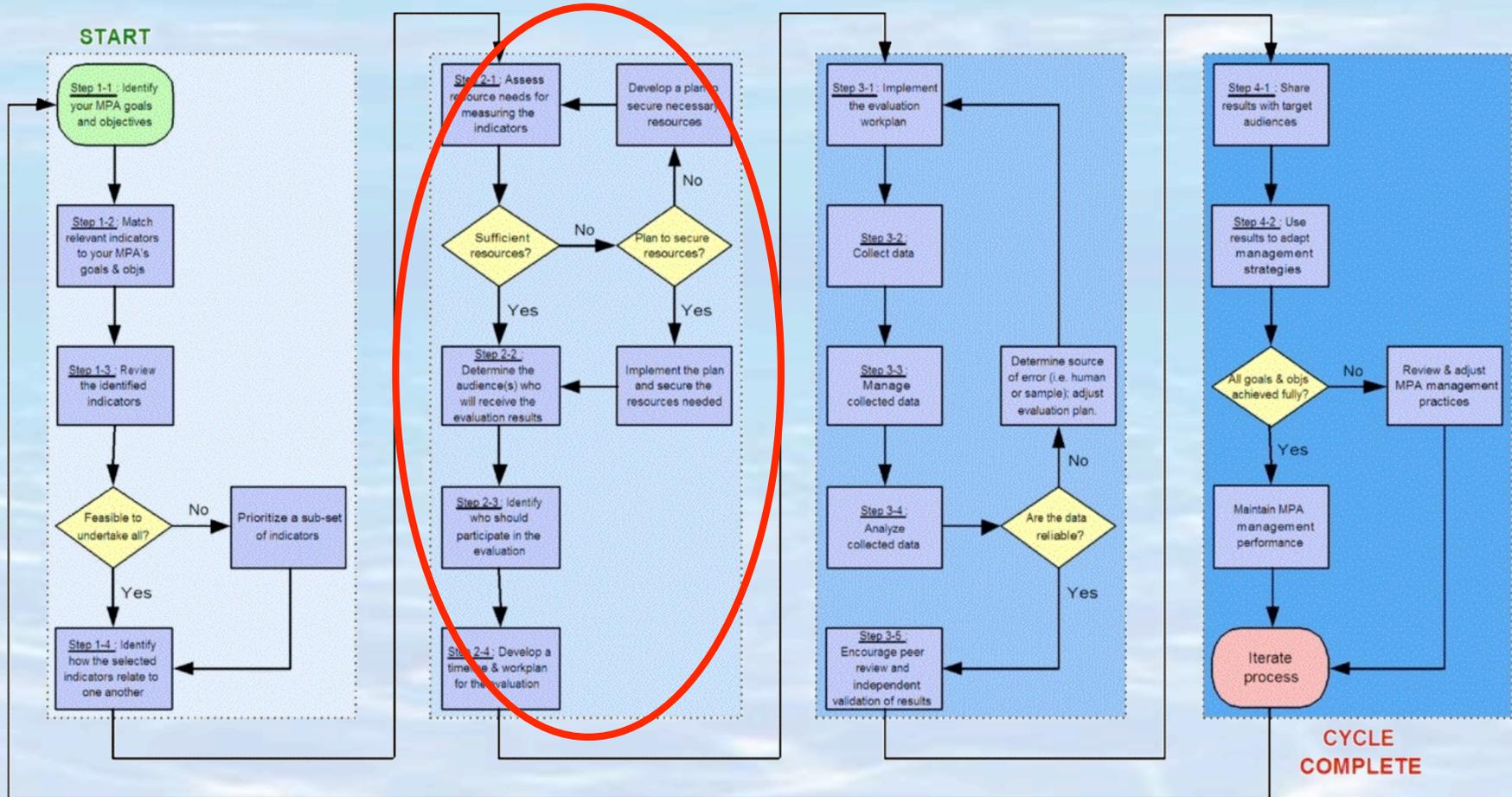
GOAL 5
5A 5B
5D 5E



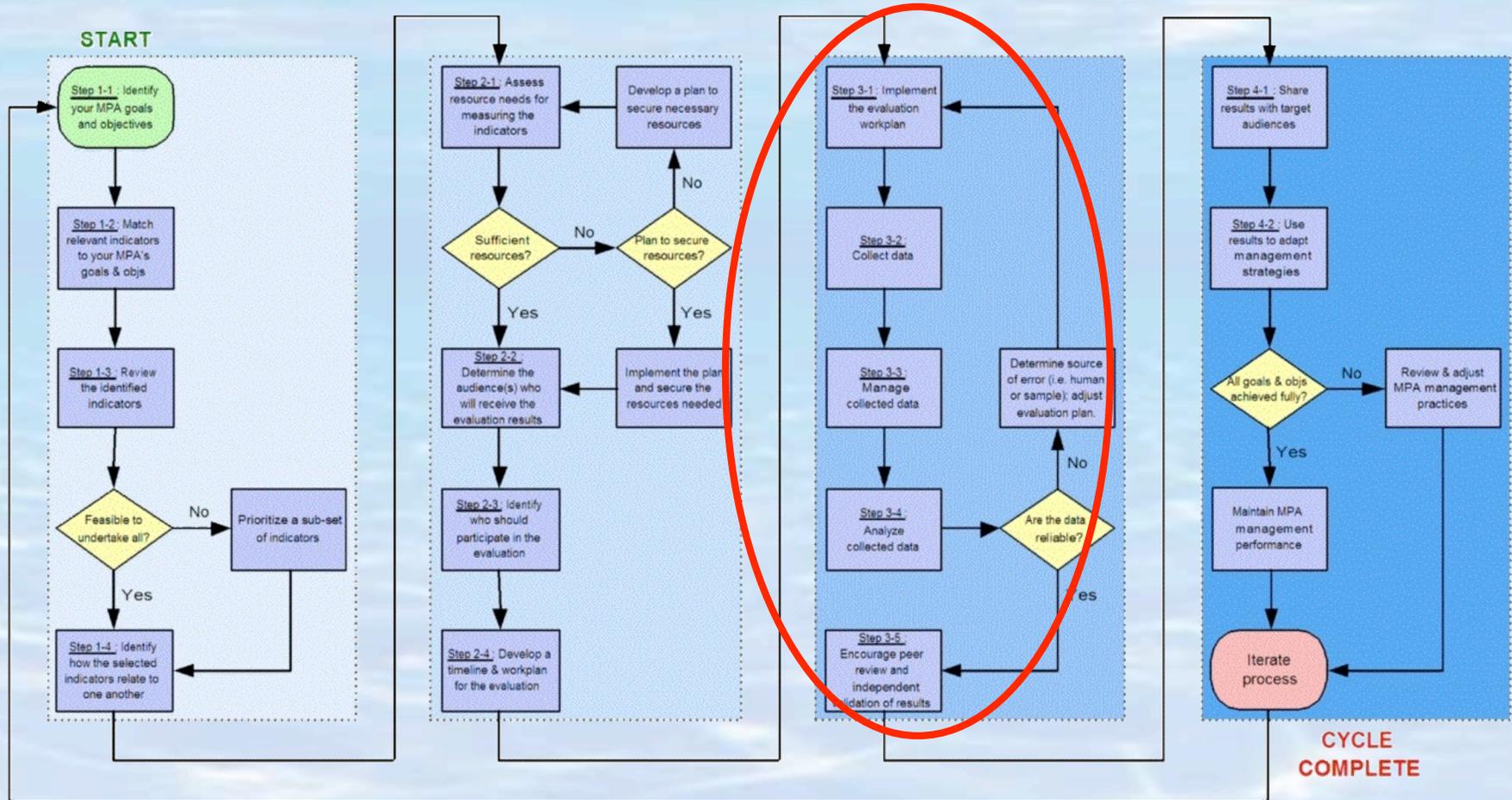
Step 1: Selecting Your Indicators



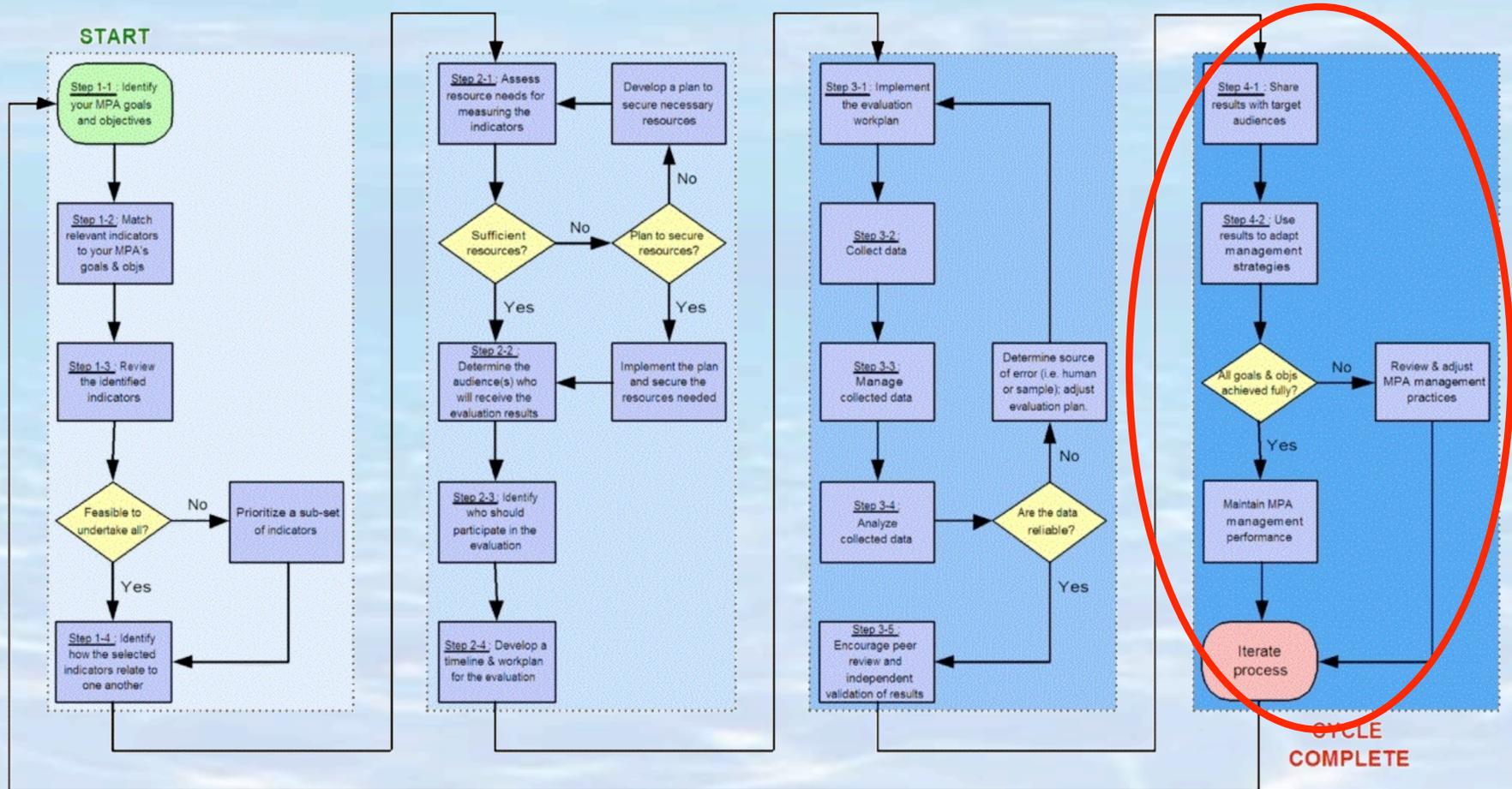
Step 2: Planning Your Evaluation



Step 3: Implementing the Plan



Step 4: Sharing the Results



Selecting Indicators

- **Identify relevant goals and objectives in the handbook**
- **List all possible indicators**
- **Review and prioritize the indicators identified**

Planning your Evaluation

- **Assess resource needs for measuring your indicators**
- **Determine the audience who will receive the evaluation results**
- **Identify who should participate in the evaluation**
- **Develop timeline and workplan for the evaluation**

How the biophysical indicators relate to the common goals and objectives

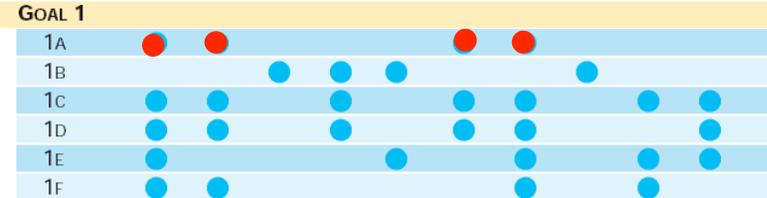
Focal species abundance
 Focal species population structure
 Habitat at distribution and complexity
 Composition and structure of the community
 Recruitment success within the community
 Food web integrity
 Type, level and return on fishing effort
 Water quality
 Area showing signs of recovery
 Area under no or reduced human impact

B1 B2 B3 B4 B5 B6 B7 B8 B9 B10



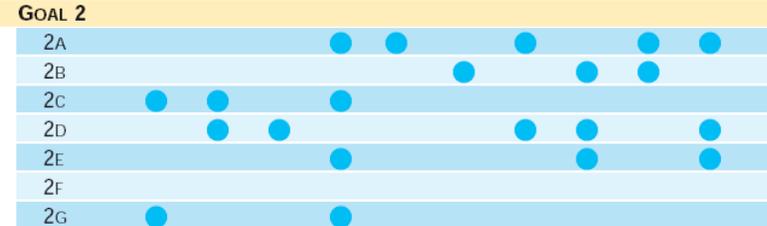
GOAL 1 Marine resources sustained or protected

- 1A Populations of target species for extractive or non-extractive use restored to or maintained at desired reference points
- 1B Losses to biodiversity and ecosystem functioning and structure prevented
- 1C Populations of target species for extractive or non-extractive use protected from harvest at sites and/or life history stages where they become vulnerable
- 1D Over-exploitation of living and/or non-living marine resources minimized, prevented or prohibited entirely
- 1E Catch yields improved or sustained in fishing areas adjacent to the MPA
- 1F Replenishment rate of fishery stocks increased or sustained within the MPA



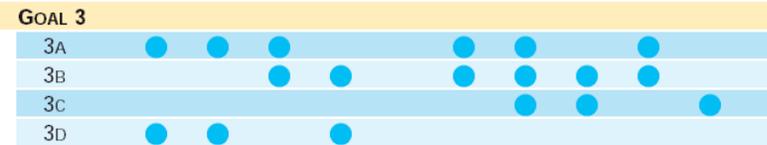
GOAL 2 Biological diversity protected

- 2A Resident ecosystems, communities, habitats, species, and gene pools adequately represented and protected
- 2B Ecosystem functions maintained
- 2C Rare, localized or endemic species protected
- 2D Areas protected that are essential for life history phases of species
- 2E Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA
- 2F Risk from unmanageable disturbances adequately spread across the MPA
- 2G Alien and invasive species and genotypes removed or prevented from becoming established



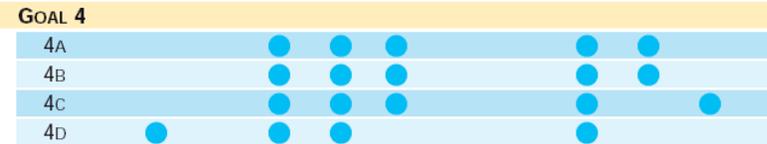
GOAL 3 Individual species protected

- 3A Focal species abundance increased or maintained
- 3B Habitat and ecosystem functions required for focal species' survival restored or maintained
- 3C Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA
- 3D Alien and invasive species and genotypes removed from area or prevented from becoming established



GOAL 4 Habitat protected

- 4A Habitat quality and/or quantity restored or maintained
- 4B Ecological processes essential to habitat existence protected
- 4C Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA
- 4D Alien and invasive species and genotypes removed or prevented from becoming established



GOAL 5 Degraded areas restored

- 5A Populations of native species restored to desired reference points
- 5B Ecosystem functions restored
- 5C Habitat quality and/or quantity restored or rehabilitated
- 5D Unnatural threats and human impacts eliminated or minimized inside and/or outside the MPA
- 5E Alien and invasive species and genotypes removed or prevented from becoming established





NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

Project/Program Logic Model

Project Title: _____

Resources What is needed.	Activities What YOU will do.	Outputs What YOU will produce.	Outcomes How will the AUDIENCE and the ISSUE change because of what you do and produce?			Objectives (SMART)	Guidebook Indicators
			Short-Term	Mid-Term	Long-Term		
					Outcome 1		Indicator
							Indicator
							Indicator
					Outcome 2		Indicator
							Indicator
					Outcome 3		Indicator

Activity

- Are you already measuring your indicators?
- What is your current capacity to measure indicators on your list?
- Can you customize this indicator to better suit your MPA?
- How useful will it be to have the monitoring information?

Management Plan

- **Assessment Phase**
- **Strategic Planning Phase**
- **Writing and Using the Plan**

Next Steps

- **What have you learned that you can apply to your MPA?**
- **What more do you need to do to complete an effective management plan?**
- **Do you know where to go to find additional information?**