

THE OPEN STANDARDS FOR THE PRACTICE OF CONSERVATION

Planning, implementing, monitoring, and learning from projects and programs at all scales

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Resilient Saanich Technical Committee – Milestone 2: Assess

Proposal: to adapt some or all of the internationally recognized Conservation Standards as the framework for our Biodiversity Strategy and “State Of” reporting.

- Who is the Conservation Measures Partnership (CMP)?
- What are the Open Standards for the Practice of Conservation (CS)?
- What is the connection to the Milestone 2 Objective “Assess”
- Is this a framework/thought tool that can see us through to a Biodiversity strategy? What do we do after “assess” and how?



History

CMP's roots go back to the July 2002 Society for Conservation Biology meeting, where key members of the USAID-funded Global Conservation Program launched efforts to reconsider how conservation practitioners monitor and measure conservation success.

Representatives from The Nature Conservancy, World Wildlife Fund-US, Wildlife Conservation Society, Conservation International, and Foundations of Success had previously discussed ways to better collaborate, so that M&E and auditing efforts might be made collective.

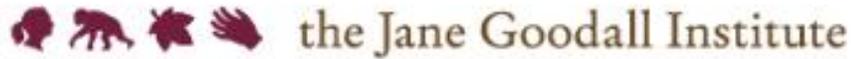
At the meeting, organizations shared data on M&E, impact assessment, and auditing; identified gaps in knowledge and practice; and planned future collaborations. This was the catalyst for collective action across conservation.

The organizations met again later that year to review M&E process standards and formally establish CMP. A common language for project management terminology was developed called Rosetta Stone of Project Management Systems. This and synthesized process standards led to the development of the [Conservation Standards for the Practice of Conservation](#) (version 1.0) in 2004. You can download Version 4.0 [here](#).

Since 2002, CMP has grown and diversified its membership, undertaking new [initiatives](#) to improve and magnify our conservation impact.

CMP realized that an effectiveness monitoring framework should be consistent with the framework for planning and implementation, which was also lacking at the time.

CONSERVATION MEASURES PARTNERSHIP



Defining and using evidence in conservation practice

Nick Salafsky¹  | **Judith Boshoven¹** | **Zuzana Burivalova²**  | **Natalie S. Dubois³** | **Andres Gomez⁴** | **Arlyne Johnson¹** | **Aileen Lee⁵** | **Richard Margoluis⁵** | **John Morrison⁶** | **Matthew Muir⁷** | **Stephen C. Pratt⁸** | **Andrew S. Pullin⁹**  | **Daniel Salzer¹⁰** | **Annette Stewart¹¹** | **William J. Sutherland¹²** | **Claire F. R. Wordley¹²** 

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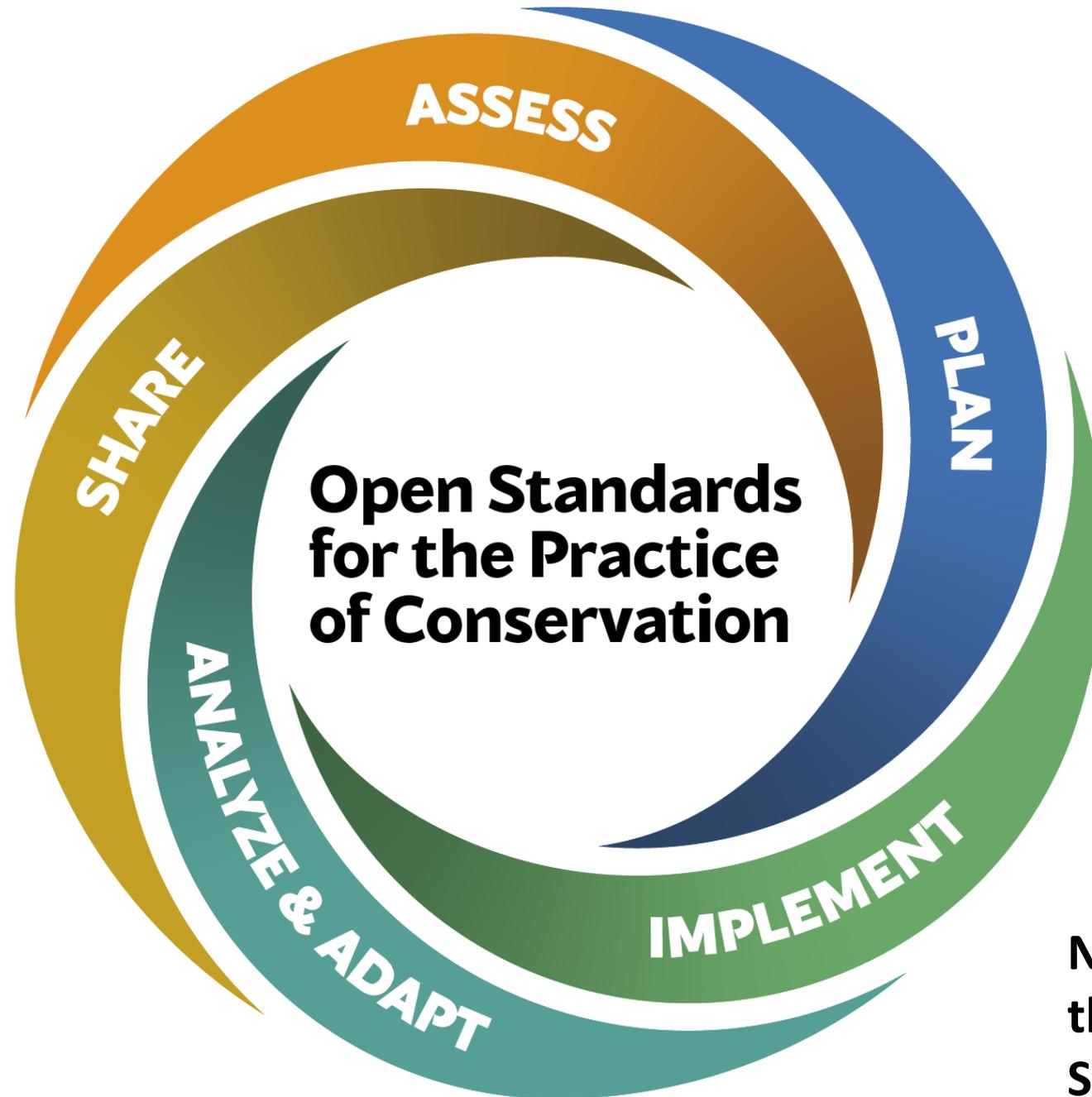
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There is growing interest in evidence-based conservation, yet there are no widely accepted standard definitions of evidence, let alone guidance on how to use it in the context of conservation and natural resource management practice. In this paper, we first draw on insights of evidence-based practice from different disciplines to define evidence as being the “relevant information used to assess one or more hypotheses related to a question of interest.” We then construct a typology of different kinds of information, hypotheses, and evidence and show how these different types can be used in different steps of conservation practice. In particular, we distinguish between specific evidence used to assess project hypotheses and generic evidence used to assess generic hypotheses. We next build on this typology



- Evidence-based
- Adaptive Management



**Now just known as
the Conservation
Standards**

Supported by: Software, Coaches Network, Teaching Resources, Training & Guidance, and International Standards



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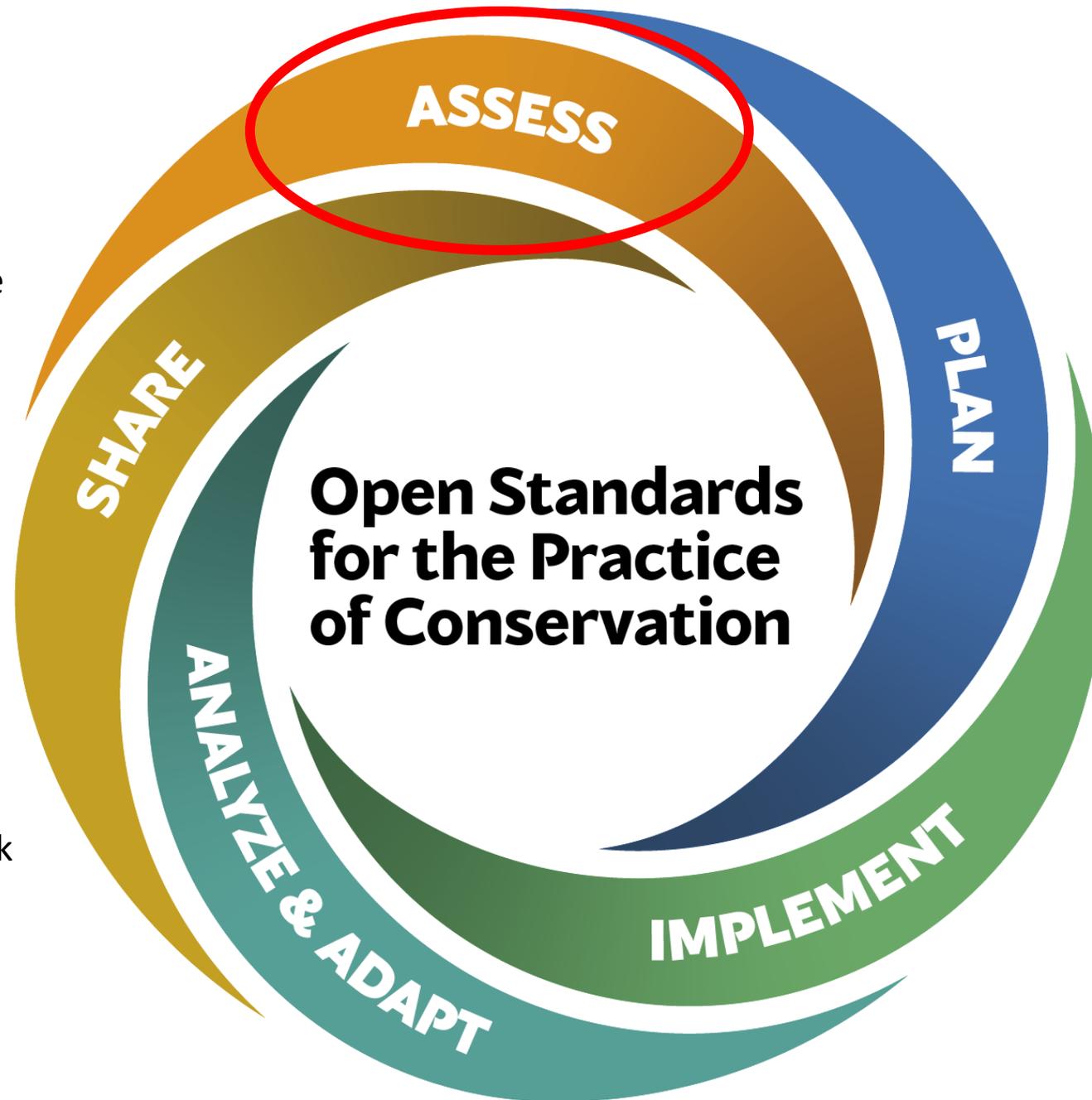


- Evidence-based
- Adaptive Management

Assess, Analyze and Report
= Assess, Analyze and Share

It is advantageous to have the same structure to your Analysis and Reporting (“State Of Biodiversity”), as will ultimately be used by planning and implementation to make it consistent throughout.

It is critical that we get this right now, so the framework will support us in our next steps and subsequent reporting iterations.



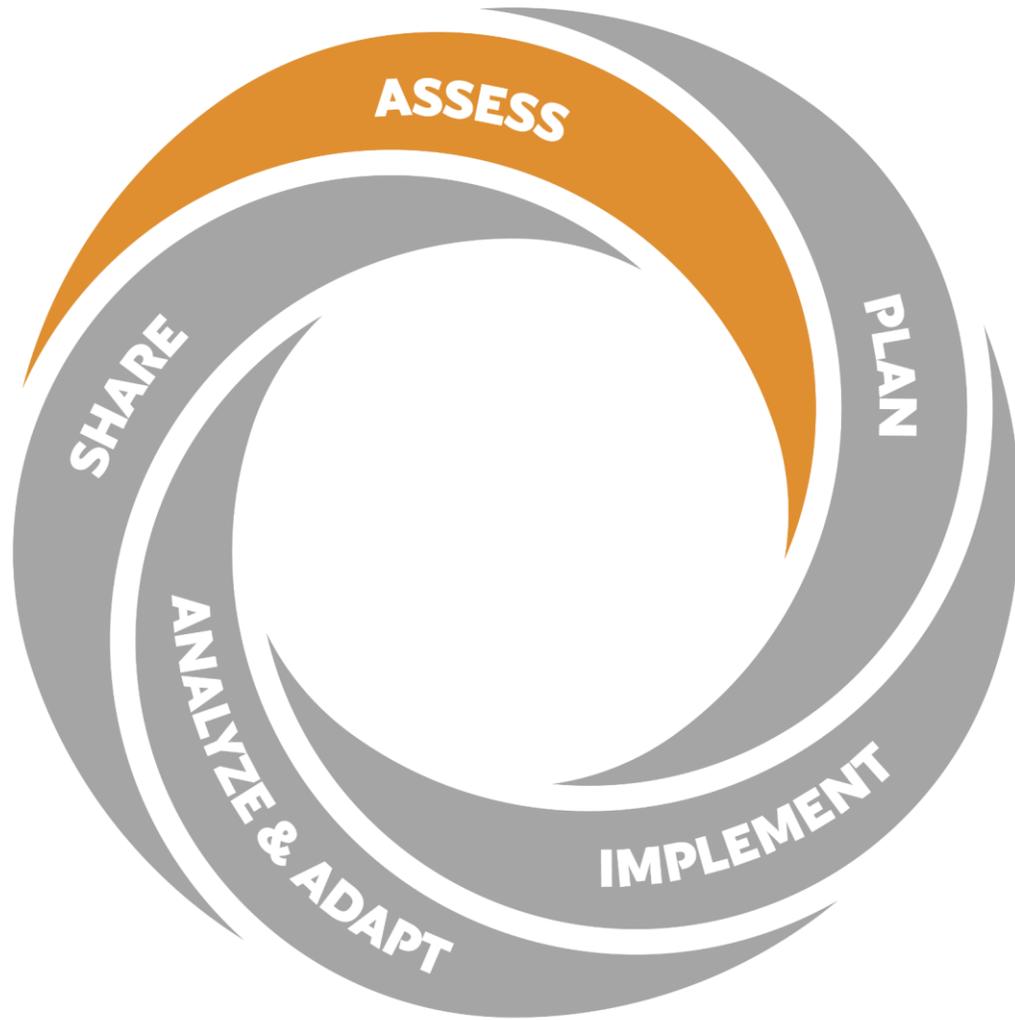
RSTC Milestone 2:

Assess

- State of Biodiversity Study: **Assess, Analyze and Report** on the state of biodiversity in Saanich

RSTC Committee:

- Draft outline for the State of Biodiversity Study.
- Identify gaps and limitations in existing data and information
- Consider when/how/if to address these gaps.
- Recommend additional studies/data gathering.
- Develop a TOR for State of Biodiversity Study.



1. ASSESS

- Purpose & team
 - Scope & vision
 - **Targets**
 - Viability
 - Threats
 - Conservation situation
-
- Purpose and team have been established; Scope and Vision have been articulated. (Scope in this context means geographical – Saanich)
 - Conservation Situation = State of Biodiversity Report
 - Defining Targets, Viability and Threats is how we get from here to there.

WHAT ARE CONSERVATION TARGETS?

An element of biodiversity (species, habitat, or ecological system) at a project site on which a project has chosen to focus. All targets should collectively represent the biodiversity of concern at the site.

NOTE – This is a different definition than we normally see in Resilient Saanich materials.

WHY TARGETS?

- Set goals
- Select strategies & actions
- Measure effectiveness





CATEGORIES

- Ecological systems
- Habitats
- Species



PROCESS

- Select targets
- Minimize number
- Group targets





PHOTO: ANDREW BRIDGES

PLACE-BASED SCOPE

- Targets encompass site biodiversity
- Choose around 8 - 10 targets max
- Larger scale: more / coarser targets
- Example: San Ignacio Lagoon scope
 - Grey whales
 - Intertidal habitats
 - Fish communities
 - Seabird assemblages



Quick Search [Red List](#)[Red & Blue List](#)[SARA List](#)[Red, Blue & SARA List](#)

Search by Name

Name [Search](#) Scientific English Species Code

Note: Search Results will be restricted to taxa/communities that meet **ALL** selected criteria (e.g., Vascular Plants group **AND** in Castlegar **AND** Endemic).

Search by Group

Search by Conservation Status or Legal Designation Search by Area 

Other Search Options

Sort Order: [Search](#)[Reset](#)

N=330 Elements!

Bin them!

Example Targets:

- Garry Oak ecosystems;
- Wetlands;
- Salmon;
- Urban Forests;
- Mature CDFmm Forests
- Lakes
- Intertidal Habitats

TARGETS IN MIRADI



Miradi - MarineExample

File Edit View Actions Step-by-Step Help



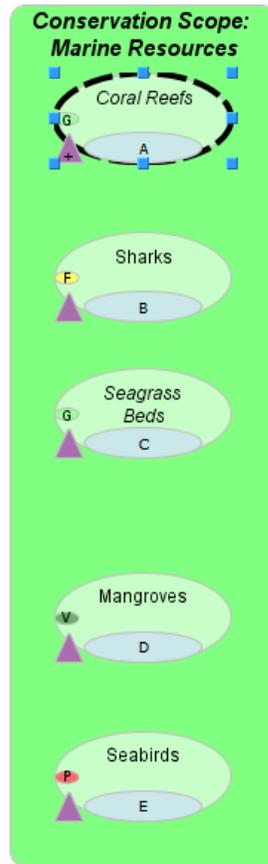
Conceptual Model Results Chains

Control Bar

- Conceptual Models
 - EB Main Model
 - Human Wellbeing Targets
- Insert Scope Box
- Insert Target
- Insert Human Wellbeing Ta
- Insert Biophysical Factor
- Insert Direct Threat
- Insert Contributing Factor
- Insert Strategy
- Insert Link...
- Goal
- Objective
- Indicator
- Stress
- Insert Text Box
- Create Group Box
- Manage Tags

Tags

- Climate Change
- Fishery
- Rats
- Sharks



Factor Properties

Target: A. Coral Reefs

Viability Analysis Model: Knowledge Contribute

Summary Goals Viability Stresses Nested Targets

Summary Target Details

ID: A Name: Coral Reef

Eastern Village Bay has extensive coral reef areas

Font: Size: Medium (Default) Color: Black (Default) Style: Plain (Default)

Species Latin Name:

Habitat Association (IPCC v3.0): Marine Neritic - Coral Reef

Program Classifications: EB Main Model, Human Wellbeing Targets

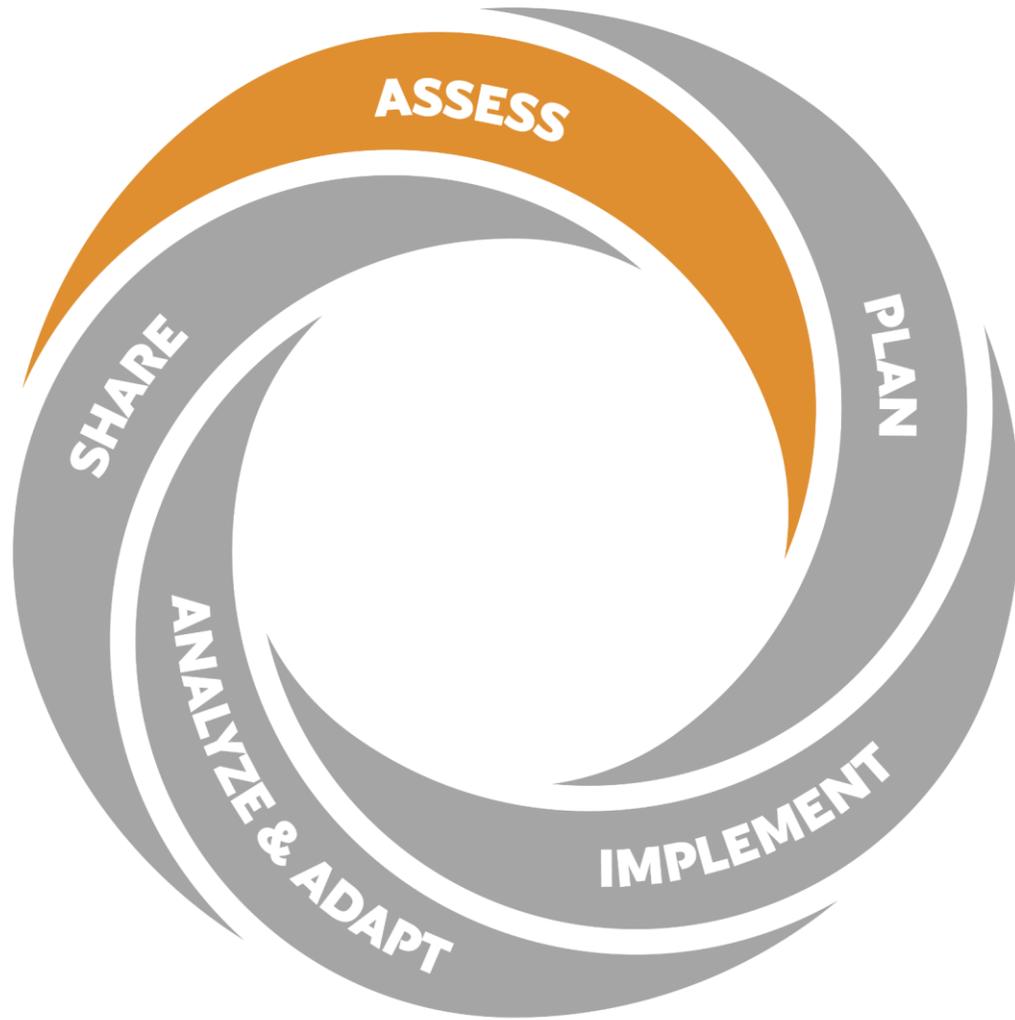
Conceptual Model Pages: RC2. Develop Sustainable Ocean Fishery

Results Chains:

Tags: Climate Change, Fishery, Rats, Sharks

PHOTOLEGIDO INITIATIVE





1. ASSESS

- Purpose & team
- Scope & vision
- Targets
- **Viability**
- Threats
- Conservation situation



PHOTO: MAX GOTTIS, JINSPLASH

VIABILITY ASSESSMENT

1. Define key ecological attributes (KEA's) for each target (≥ 1)
2. Select viability/integrity indicators for each KEAs
3. Assign ratings to the indicator (H,M,L)
4. Determine current status
5. Describe desired future status

“Viability” is a term that is often used synonymously with ‘Ecological Integrity’ (e.g., by NatureServe, the CDCs and Parks Canada). This is the case here.



KEY ATTRIBUTE CATEGORIES

- Size
- Condition
- Landscape context

Assign an indicator for each = ≈ 3 indicators/KEA/Target

The same methodology used by NatureServe (and thus the BC CDC) to rank Element Occurrences,





PHOTO: ANDREW BRIDGES

INDICATOR CRITERIA

- Measurable
- Precise
- Consistent
- Sensitive
- Efficient



Indicator ratings - Size

			Indicator ratings			
Target	Key Attribute	Indicator	Poor	Fair	Good	Very good
Sea turtle	Reproduction	Hatchlings per year		500-1,000	1,001-1,500	
Current status				700		
Desired future status					1,400	

Indicator Ratings- Condition

			Indicator ratings			
Target	Key Attribute	Indicator	Poor	Fair	Good	Very good
Coral reef	Community composition (condition)	Coral species richness		5-10	≥11	
Current status				9		
Desired future status					≥15	



Indicator Ratings – Landscape context



PHOTO: ANDREW BRIDGES

Indicator ratings

Target	Key Attribute	Indicator	Poor	Fair	Good	Very good
Sage brush habitat	Burn regime (landscape context)	Fire frequency		Too much <u>or</u> Too little	Enough	
Current status				Not Enough		
Desired future status					Enough	

VIABILITY IN MIRADI

File View Actions Step-by-Step Help

Target Viability

Miradi Share Dashboard More Info Examples Workshop

Intro to View
Target Viability

< Previous Next >

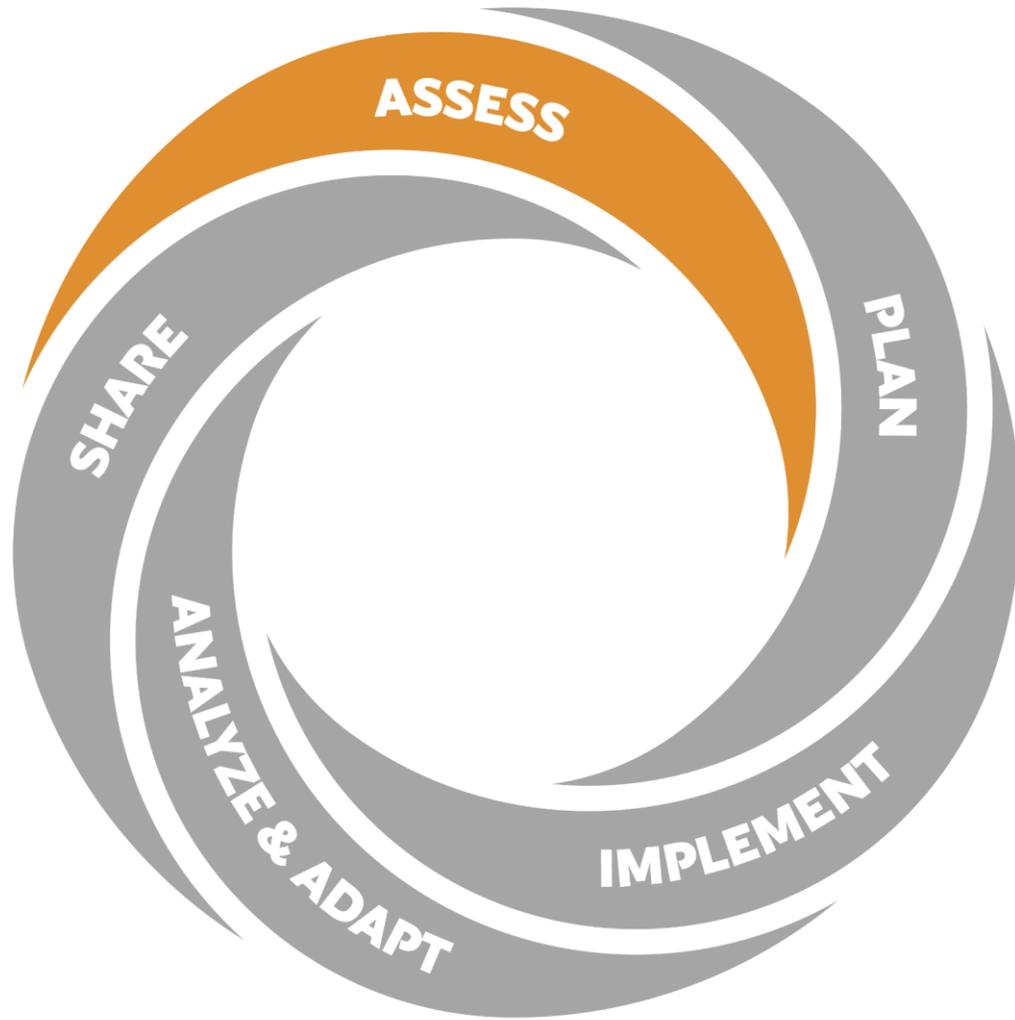
View

Create KEA Create Indicator Create Measurement Create Future Status Expand To... Delete KEA

Delete Item

Item	Source	Viability Mode	Status	Future Status	Type	Poor	Fair	Good	Very Good	Progress
MarineExample_4_5_0			Fair	Good						
A. Coral Reefs		Key Attribute	Good	Good						
Area of coral reef			Good	Good	Size					
A1. % of appropriate areas covered by healthy coral reef	Expert Knowledge		Good	Good		< 50%	51 - 70%	71 - 90%	> 90%	On-Track
2018-01-25: 72	Rapid Assessment							72		
2016-06-01: 78	Rapid Assessment							? 78		
2024-12-31								80		





1. ASSESS

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- Viability
- **Threats**
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DIRECT THREAT

- IUCN-CMP standardized classifications
- Examples:
 - Unsustainable fishing
 - Invasive species
 - Illegal hunting
 - Potential oil spill
 - Climate-change-induced sea level rise



MULTIPLE THREATS

Inappropriate
road construction

Clear-cut logging

Unsustainable
development

Habitat destruction

Mixed Pine
Forests

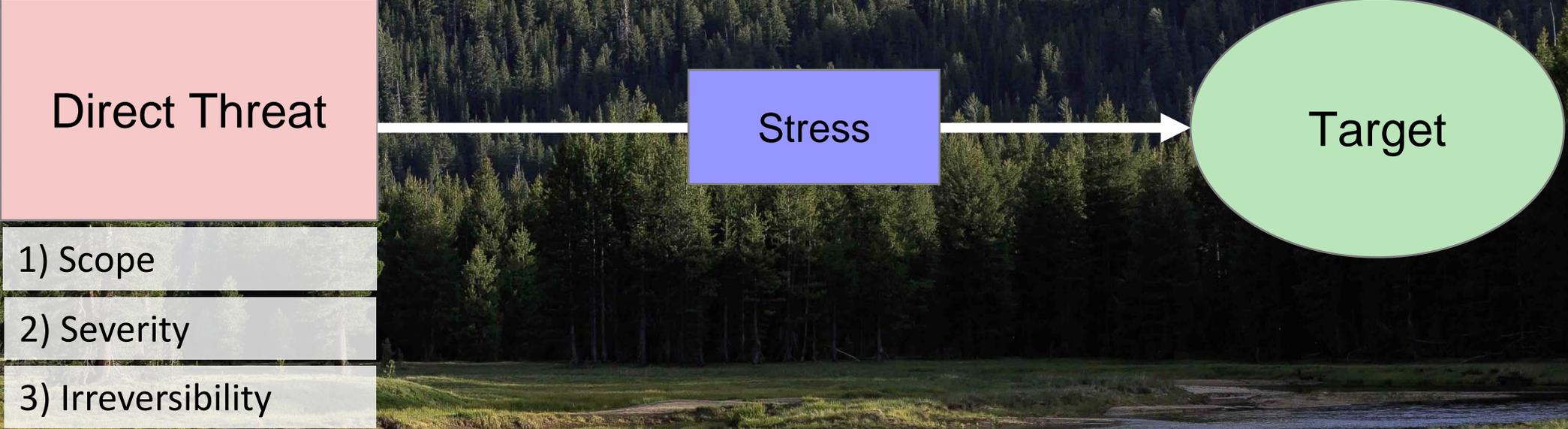
DIRECT THREATS, STRESSES, & BIOPHYSICAL FACTORS IN MIRADI



The screenshot displays the MIRADI software interface for the 'Eastern Bay Project Conceptual Model v 2.0'. The main workspace shows a flowchart of the conceptual model with various factors and indicators. A 'Control Bar' on the left contains several tool options, with 'Insert Biophysical Factor', 'Insert Direct Threat', and 'Stress' highlighted with red boxes. A 'Factor Properties' dialog box is open on the right, showing details for a 'Direct Threat' named 'Diver & Anchor Damage'. The dialog includes fields for ID, Name, and a text area for comments. It also has sections for Font, Direct Threat status, Program Classifications, Conceptual Model Pages, Results Chains, and Tags. The conceptual model diagram shows a flow from 'Increased Seawater Temperature' and 'Increased Storm Intensity' to 'Coral Bleaching' and 'Reduced Area of Reef System', respectively. These lead to 'Physical Damage to Reef Structure', which is linked to 'Coral Reefs' (Indicator A). Other factors include 'Diver & Anchor Damage', 'Illegal Shark Finning by Mainland Boats', 'Unsustainable Fishing By Locals', 'Upland Logging', 'Flooding', 'Increased River Sedimentation', 'Introduced Predators (Rats)', and 'Predation on Seabird Nests', all leading to various indicators like 'Sharks' (B), 'Seagrass Beds' (C), 'Mangroves' (D), and 'Seabirds' (E). A 'Conservation Scope: Marine Resources' box encompasses indicators A through E.



SIMPLE THREAT RATING – 3 CRITERIA



SUMMARY RATINGS

Threats → Targets ↓	River system	Mixed pine forest	Black bears	Summary threat rating
Clear-cut logging	Very High	Very High	Medium	Very High
Dam construction	Very High	Low	--	High
Development	Medium	High	Low	Medium
Poaching	--	--	Medium	Low
Summary target rating	Very High	High	Medium	Very High
				Overall project rating

SUMMARY SIMPLE THREAT RATING



Miradi - MarineExample_4_5_0

File Edit View Step-by-Step Help

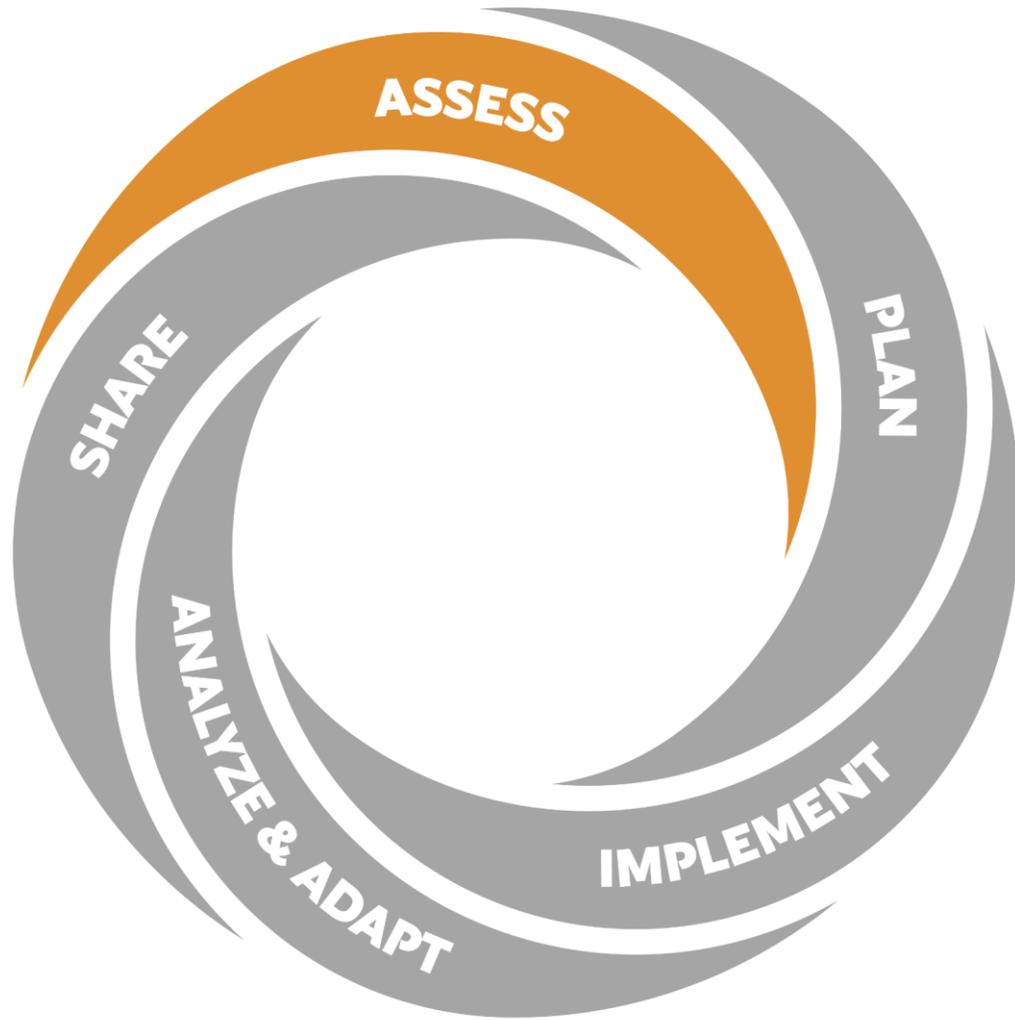
Threat Ratings Simple Threat Rating Mode

Miradi Share Dashboard More Info Examples Workshop

Intro to View
Threat Ratings

Threats \ Targets	Coral Reefs	Sharks	Seagrass Beds	Mangroves	Seabirds	Summary Threat Rating
Diver & Anchor Damage	Medium					Low
Illegal Shark Finning by Mainland Boats		High				Medium
Unsustainable Fishing By Locals	Very High		Very High			Very High
Introduced Predators (Rats)					Very High	High
Upland Logging			Low	High		Medium
Increased Storm Intensity	High		High	High		High
Increased Seawater Temperature	High					Medium
Summary Target Ratings:	High	Medium	High	High	High	Overall Project Rating Very High





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- **Conservation situation**

SITUATION MODEL

Question mark can indicate uncertainty about presence of a factor

Dotted lines could indicate uncertainty in relationships

OPPORTUNITY+

DIRECT THREAT

INDIRECT THREAT?

DIRECT THREAT

STRESS

Scope

CONSERVATION TARGET

OPPORTUNITY+

INDIRECT THREAT

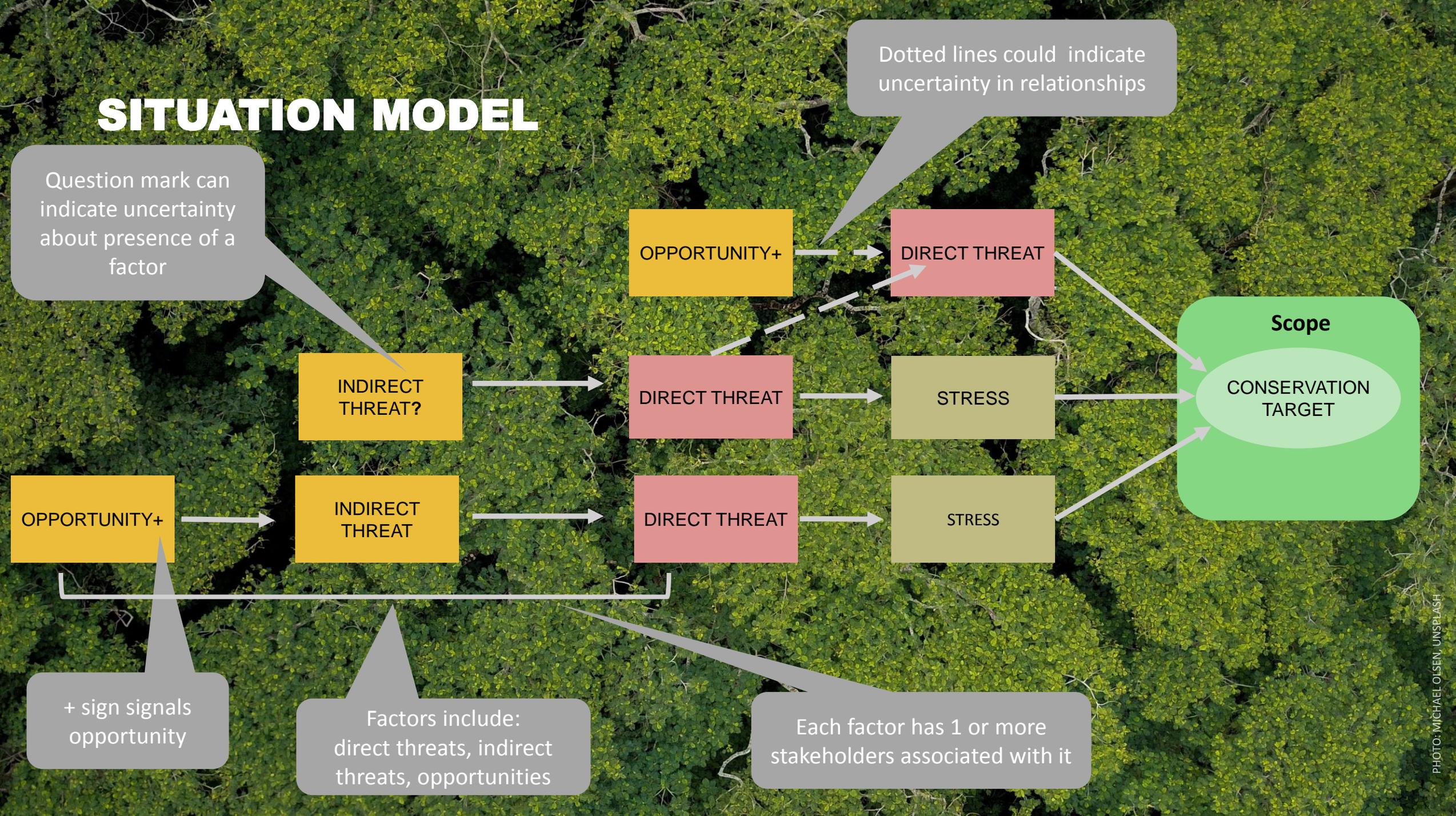
DIRECT THREAT

STRESS

+ sign signals opportunity

Factors include: direct threats, indirect threats, opportunities

Each factor has 1 or more stakeholders associated with it

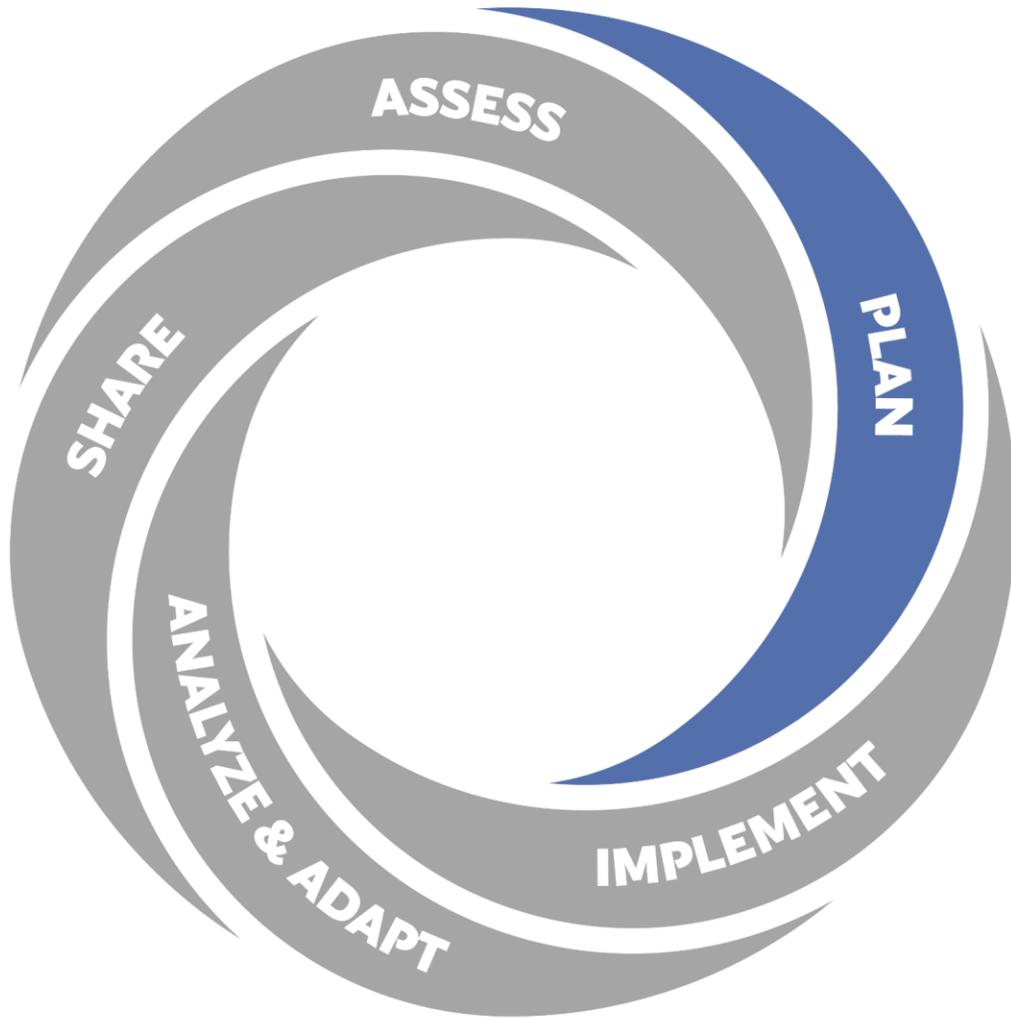


Now you have a well structured framework and are ready to produce a “State of Biodiversity” report.

Further – this same framework will guide and support you through every other step of the Conservation Standards process :

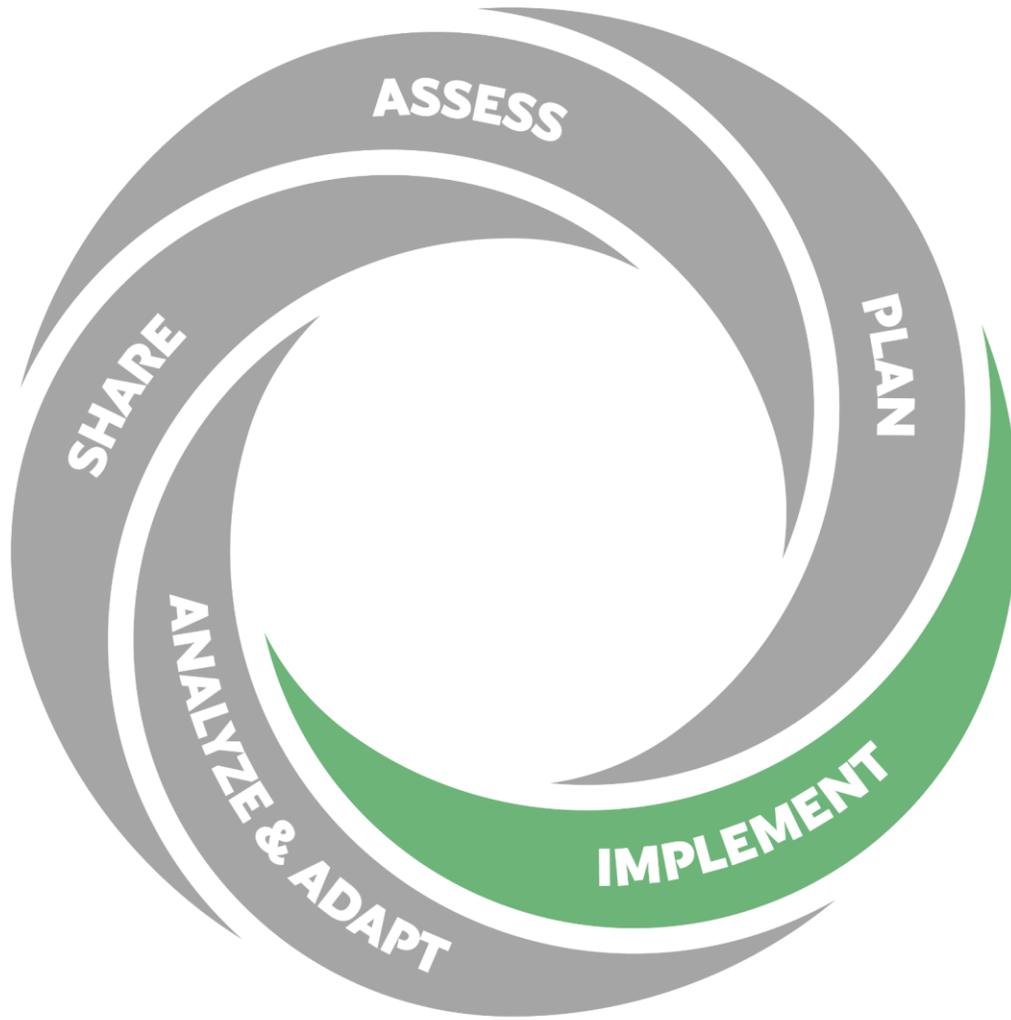
1. Plan;
2. Implement;
3. Analyze and Adapt;
4. Share;





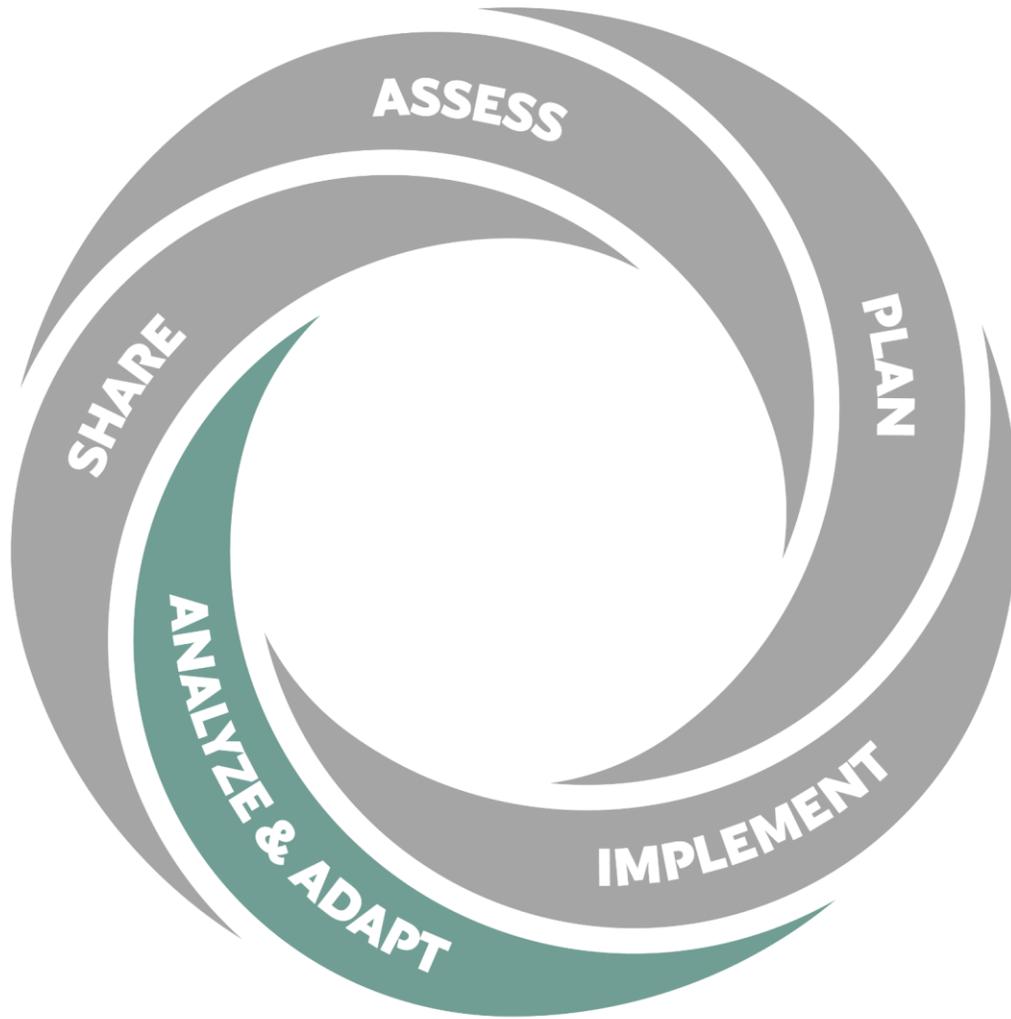
2. PLAN

- Goals
- Strategies
- Theory of Change
- Monitoring
- Operational Plan



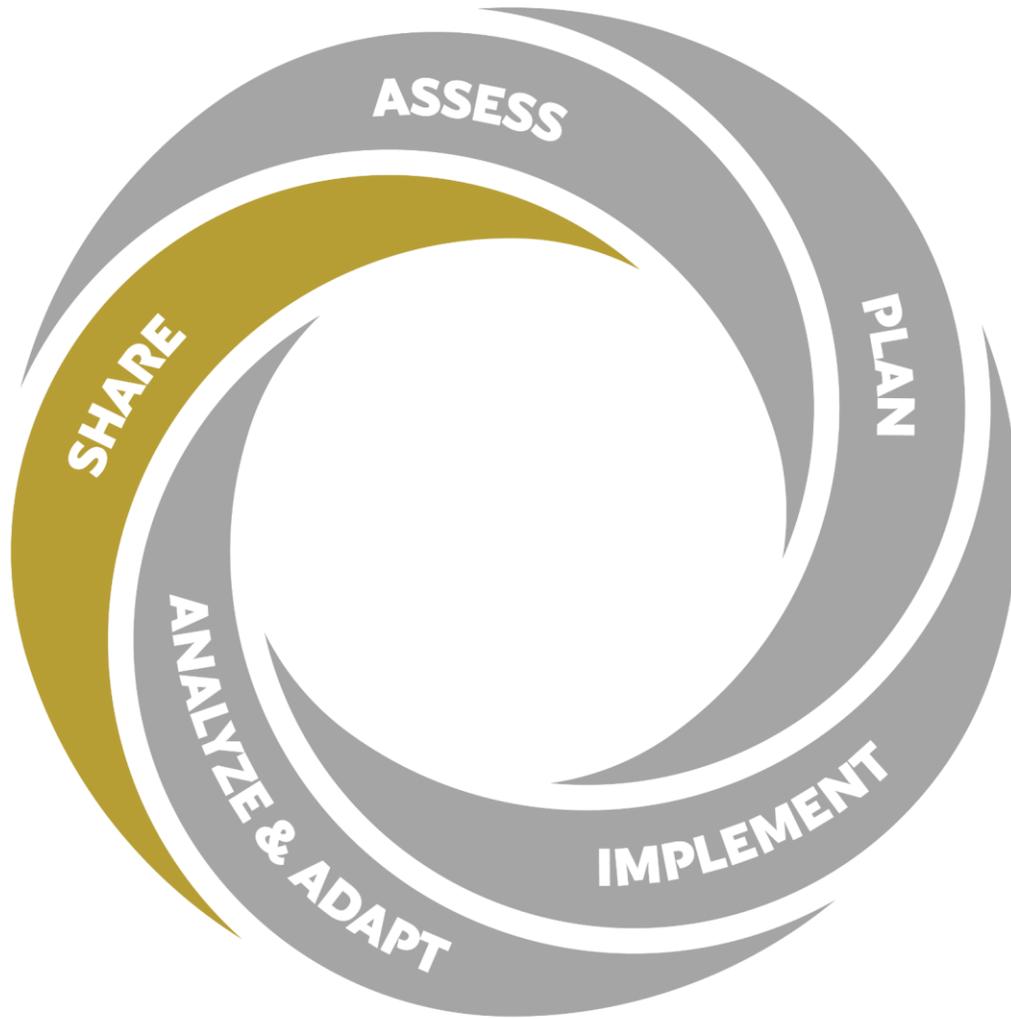
3. IMPLEMENT

- Work plan, budget
- Implement
- Monitor
- Report



4. ANALYZE & ADAPT

- Prepare
- Analyze
- Adapt



5. SHARE

- Document
- Share
- Foster learning

Recommendations

- That the RSTC adopt the Open Standards for the Practice of Conservation (Conservation Standards) as the framework with which to structure the ‘State of Biodiversity Report’ in Milestone 2 and the Biodiversity Strategy articulated in future Milestones.
- That the consultant(s) engaged to support the State of Biodiversity Report (Milestone 2) and subsequent Biodiversity Strategy be qualified Conservation Practitioner(s) trained in the application of the Conservation Standards;
- That an “expert workshop” process including the RSTC or Biodiversity Working Group, Staff, First Nations and Stewardship/Naturalist Groups be implemented to review the draft Targets, Key Ecological Attributes, Viability, Threats and other pertinent parameters associated with the development of the State of Biodiversity Report and subsequent Biodiversity Strategy.