

US Fish and Wildlife Service

# Measures of Effectiveness for Wildlife Conservation in Central America

Guidance for U.S. Fish and Wildlife Service Applicants



Credit: Ya'axche Conservation Trust

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# 1. Introduction

## 1.1 Wildlife in Central America Facing Increasing Threats

Central America is home to some of the world's richest concentrations of biodiversity, including spectacular wildlife such as jaguars, tapirs, monkeys, quetzals, and harpy eagles. These species, and thousands of others in Central American ecosystems, face threats that are growing both in number and intensity. These threats include rapid forest conversion into agricultural lands, illegal cattle ranching in protected areas, human wildlife conflict, poaching of high value wildlife and timber species such as macaws and rosewood, and wildlife trafficking. These threats are in turn driven by political instability, growing human populations, poverty and a host of other institutional, social, economic, and political factors. Unless the world takes effective action to counter these threats in both the short and long-term, we run the risk of losing this rich biodiversity.

## 1.2 A Need for Standard Indicators to Assess U.S. Fish and Wildlife Service Investments

The U.S. Fish and Wildlife Service (USFWS) and its partners (grantees, foreign government agencies, conservation organizations, other US government agencies, OMB, and US Congress) need to monitor progress of conservation investments, to both understand the degree to which desired results are achieved by USFWS grants programs, and to learn, communicate and share evidence about what works, what does not work, and why. This monitoring can be greatly enhanced if all involved parties use similar monitoring indicators so that data can easily be aggregated and compared.

To this end, the USFWS Africa Branch in collaboration with Foundations for Success worked with governmental and non-governmental partners to set out standard indicators for wildlife conservation in Central Africa. The resulting document was published in October 2014 and intended to be used to guide data collection by the USFWS, grantees, and other key partners working in the region to reduce threats to wildlife. The full document is available here: <https://www.fws.gov/international/pdf/guidance-effectiveness-measures-central-africa.pdf>

The USFWS Western Hemisphere Branch has adapted the Central Africa document to address the need for a set of indicators for USFWS investments in Latin America. The document identifies **indicators** for both conservation actions and threats. It seeks to serve as draft guidelines for how to measure the effectiveness of commonly-funded conservation actions and how to assess the status of common threats across the region.

The following table includes the actions and threats addressed in this document specifically for **Central America**:

**Table 1: Actions and Threats Covered in the Guidance for Central America**

Commonly-Funded Actions	Common Threats
<ol style="list-style-type: none"> <li>1. Public engagement</li> <li>2. Alternative livelihoods, economic and other incentives</li> <li>3. Wildlife law compliance &amp; enforcement</li> <li>4. Environmental law &amp; policy</li> <li>5. Conservation designation, management and planning</li> <li>6. Training and capacity development</li> <li>7. Partnerships</li> </ol>	<ol style="list-style-type: none"> <li>1. Agricultural encroachment</li> <li>2. Illegal cattle ranching</li> <li>3. Human-wildlife conflict</li> <li>4. Commercial hunting of wildlife</li> <li>5. Removal of Animals from the Wild for Pet Trade</li> </ol>

**Please note:** This is the first version USFWS guidance for standard action and threat indicators for wildlife conservation in Central America. As such, we encourage applicants and partners to contact USFWS to refine and improve recommended indicators, conservation actions and threats for later versions. Please send feedback to WWB\_CA@fws.gov.

### 1.3 How These Indicators Are Meant to Be Used

This document provides a set of indicators that are currently recommended for use by USFWS Central America grantees. In some cases, USFWS will require these indicators to be used for cooperative agreements. These indicators are designed to enable the USFWS and its grantees and partners to:

- *Monitor, Assess and Report on Performance* – Use of key indicators enables USFWS, grantees, and other partners to track progress of conservation actions and to report on performance, both in terms of intermediate impacts as well as ultimate threat reduction.
- *Collect, Share and Aggregate Comparable Data* – Use of common indicators enables USFWS to bring data together from individual grants to create larger and more robust data sets across programs.
- *Learn and Improve* – Finally, use of these indicators helps provide the basis for true adaptive management by allowing USFWS and potentially partners to compare data and conditions across projects and sites to understand the conditions under which different actions are effective or not in reducing threats and why. This type of learning is most effective when both the funder and the grantee agree that it is important to report not just successes, but also challenges and failures without penalty.

## 1.4 A User's Guide to Applying this Guidance to USFWS Proposal Writing and Grantee Reporting

This document is meant to guide applicants as they prepare their proposals for USFWS grants programs. It describes the information the applicant should include in the proposal's *Statement of Need* and *Project Monitoring and Evaluation* sections and recommends indicators that will help grantees and USFWS staff better assess and communicate results. The document also identifies common threats to biodiversity in Central America and recommends indicators to measure how the status of these threats changes over time.

**Section 1** provides an introduction to the document.

**Section 2** describes application questions and effectiveness measures for seven conservation actions most frequently funded by USFWS in Central America.

Each section includes:

A **definition** for the action.

**Monitoring questions and indicators** that applicants should include in their proposal and reporting to USFWS.

- **Application questions** include questions that the applicant should answer in the proposal's *Statement of Need* for each action for which funds are being requested.
- **Recommended indicators** provide short- and medium-term measures of performance. Applicants are encouraged to include recommended indicators in the proposal's *Project Monitoring and Evaluation* section. USFWS grantees should use these indicators to learn the degree to which their projects are functioning as intended and adapt their projects (and future proposals submitted to USFWS) as necessary. Grantees should report on the indicators in the mid-term and final reports to USFWS.

**Section 3** describes the most common direct threats to biodiversity in Central America, as identified in USFWS grants.

Each section includes:

- A **definition** of the threat, **units of analysis**, and **core information needs**.
- **Recommended indicators** that provide medium- and long-term measures of performance. Applicants with multi-year grants are encouraged to include recommended threat indicators in the proposal's *Project Monitoring and Evaluation* section. USFWS grantees should use these indicators to learn the degree to which their projects are functioning as intended in achieving **desired results** and adapt their projects (and future proposals submitted to USFWS) as necessary. Grantees should report on the indicators in the mid-term and final reports to USFWS.

## 2. Indicators for Key Conservation Actions

**Conservation actions** are the basic unit of conservation work; they are the interventions teams take to reach project objectives and longer-term conservation goals. The specific action needed depends on local conditions, including the type of conservation target, the threat being addressed, the capacity of the project team, and many other potential contributing factors. As such, every conservation action is unique in its details, making it difficult to track, assess, and compare their performance.

Some conservation actions, however, have inherent similarities to one another. As a simple example, consider one project deploying rangers to deter poaching in a forested national park, and a second project recruiting local villagers to protect sea turtle nests from egg collection during the critical nesting season. Even though these two actions occur in different ecosystems and have different conservation targets, threats, implementation steps, and implementing teams, the underlying theory of change is basically the same – deploy trained patrols or guards to both apprehend and deter poachers from illegally harvesting wildlife.

After reviewing existing USFWS grants in Central America, it was determined which are the most common types of actions funded under this program – and, therefore, actions for which it would make sense to develop indicators. These include:

1. Public engagement
2. Alternative livelihoods, economic and other incentives
3. Wildlife law compliance and enforcement
4. Environmental law and policy
5. Conservation designation, management and planning
6. Training and capacity development
7. Partnerships



## **ACTION #1: Public Engagement**



Credit: Organización para la Conservación de la Naturaleza y Desarrollo Comunitario (ORCONDECO)

**Definition:** Actions designed to make people aware of key issues while increasing their level of knowledge and understanding, thus promoting desired behavioral change and conservation action.

### **Monitoring Questions and Indicators**

The following are questions and indicators that USFWS grantees should answer in their proposal when applying for funding and when reporting on the effectiveness of public engagement activities.

USFWS and partner experience to date indicates that, to be successful, public engagement activities should pay close attention to identifying a target audience and how behavioral change is expected to occur.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

### ***Target Audience and Expectations***

- Who is the audience? (e.g. ranchers, decision-makers, community or opinion leaders)
- What is the desired behavior that outreach activities are intended to encourage?
- What are the main message(s)? Through what media will you deliver the message? Explain why you chose that media over other alternatives to deliver the message.
- For each target audience, approximately how many individuals or entities do you expect to reach with this effort? How many do you expect to gain the desired knowledge? To change behavior?

## ***Barriers and Motivations***

- What barriers are there for your target audience to adopt or continue the desired behavior? How do you expect those barriers will be addressed?
- To what degree can this public engagement strategy be successful if the barriers are not addressed?
- What motivates the behavior you want to change?
- Are there or will there be incentives to encourage behavior change? To what degree can this outreach be successful if incentives are not provided?

***Recommended Indicators:*** All grantees who are awarded USFWS funds for public engagement activities are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance.

### **% of target audience that receives message**

- For each target audience, how many individuals or what proportion of the total were you able to reach with this effort?

### **% of target audience that changes desired attitudes**

- What proportion of your target audience changes desired attitudes?
- What evidence did you use to document or detect attitudes changed?
- If you partially met or did not meet your expectations, indicate why your outreach effort did not lead to the change in attitudes you expected.

### **% of target audience that adopts desired behavior**

- For each target audience, identify approximately how many individuals or the proportion that (a) had the desired behavior before the public engagement activities; (b) express intent to continue or adopt the desired behavior following the activities; and (c) actually adopted the behavior after the activities.
- What evidence did you use to document or detect intent and behaviors?
- If you partially met or did not meet your expectations, indicate why your public engagement effort did not lead to the changes in behaviors you had expected.

### **Evidence that social norms are consistent with the outreach message**

- Have social norms changed since the start of the outreach effort? If yes, how have they changed?

### **Evidence of threat reduction**

- What evidence do you have showing the public engagement strategy lead to the reduction of key threats? Please describe. If there is no evidence of the desired threat reduction, what action (if any) did your project team take to address the lack of the desired threat reduction?



## **ACTION #2: Alternative Livelihoods, Economic and Other Incentives**



Credit: ORCONDECO

**Definition:** Actions using alternative livelihoods and incentives that directly depend on the maintenance of natural resources or provide substitute occupations as a means of changing behaviors and attitudes, and promote environmentally sustainable products or services.

**Monitoring Questions and Indicators:** The following are questions and indicators that USFWS grantees should answer when applying for funding and when reporting on the effectiveness of activities promoting alternative livelihoods, and economic or other incentives.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

*Target Audience and Expectations*

- Who is the target audience for the proposed activities to promote alternative livelihoods, economic or other incentives? What are the criteria for selecting the beneficiaries?
- Have you worked with these individuals before? Please explain.
- Does baseline data on socioeconomic status, gender, employment, or education exist for this group? If so, please describe.
- Have these individuals requested assistance in adopting alternative livelihoods? Please explain.

### *Behavior Change*

- What behavior does the target audience need to change to reduce the stated threats?
  - How were the behaviors identified?
  - What are the contributing factors to the behavior that needs to be changed?
- What specific conservation actions (practices) do you expect/need the individuals to take to adopt alternative livelihoods? Why are these actions needed?
- How many people need to adopt alternative livelihoods to achieve the desired conservation impact? Please justify your assessment.
- Will the beneficiaries need materials, financial support and/or further technical assistance in order to successfully adopt alternative livelihoods and implement future conservation actions?
- How will the beneficiaries' adoption of alternative livelihoods be measured?
- How is the adoption of alternative livelihoods part of a bigger more comprehensive process?

### *Barrier Removal*

- What are the barriers preventing a change in the desired behavior (social, cultural, political, economic, technological or physical)?
- What are the perceived benefits to individuals if they change their behavior?
- What alternate behaviors or actions might be proposed in place of the threat behavior?
- What might make the current behavior less attractive (i.e. fines, enforcement, social pressure)?

### *Attitudes*

- How does the community and your target audience feel about the proposed biodiversity conservation goals and the benefits associated with the alternative livelihood, economic or other incentives you are promoting?
- What shift in attitude do you want your target audience to experience?

### *Knowledge*

- What do people in the target audience already know about the conservation target, the threat behaviors, or the alternatives to those behaviors and benefits?

- What knowledge, tools and strategies are needed to increase awareness and help shift attitudes?

**Recommended Indicators:** All grantees who are awarded USFWS funds for this activity are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance.

**Degree to which alternatives produced sustainable livelihoods**

- # and % of target audience that has adopted alternative livelihoods
- # and % of alternative products and services that substitute for environmentally damaging ones.
- Quantification of improved and/or stable income levels from the use of alternative uses of natural resources.

**# of landowners/users receiving direct and/or indirect compensation and/or benefiting other incentives (payment for environmental services, carbon credits, community conservation agreement, easement, etc.)**

- How many landowners/users have signed and are complying with their incentive agreement?
- Total revenue received by landowners/users as a result of incentives and/or the implementation of sustainable management practices.

**Degree to which target audience adopted conservation attitudes and behaviors**

- # or % of target audience that adopted desired conservation behaviors after sustainable livelihood activities.
- What market mechanisms were successful in changing behaviors and attitudes? What market mechanisms were not successful?
- What direct and/or indirect payments systems were successful in changing behaviors and attitudes? What payment systems were not successful?

**Non-Monetary Values**

- Were intangible values used to change the behaviors and attitudes (e.g. cultural, spiritual and health)? If so, please explain and provide percentage of success.
- Did your project contribute to the intangible values (i.e. cultural, spiritual, or health) of the community in which it serves?

**Degree to which sustainable livelihoods benefits conservation/management of land, water and species**

- # and % of stakeholders that employ the alternative uses of natural resources and can demonstrate positive conservation impacts.
- # of hectares of habitat that has been protected and/or restored as a result of the adoption of alternative livelihoods and/or through other incentives (payment for environmental services, carbon credits, etc.)
- # of hectares under biodiversity friendly systems (e.g. sustainable forest management, “jaguar friendly” systems, etc.)

- Given current trends, to what degree do you think the landowner/user will continue to sustainably manage habitat beyond the end of the incentive and project? What is the basis for your response?

**Evidence of threat reduction**

- What evidence is there that these actions have reduced key threats? Please describe. If not, what action (if any) did your project team take to address the fact that you were not seeing desired threat reduction?

## **ACTION #3: Wildlife Law Compliance & Enforcement**



Credit: Ben Goodnight / Creative Commons License

**Definition:** Monitoring and enforcing compliance with wildlife, natural resources and protected areas laws, policies and regulations, and detecting and/or directly stopping violations of existing laws at all levels.

### **Monitoring Questions and Indicators**

The following are questions and indicators that USFWS grantees should answer when applying for funding and when reporting on the effectiveness of wildlife law and enforcement activities. This includes: 1) improving application of the law and disrupting illegal networks and 2) setting up and managing patrols to protect wildlife and deter illegal activities.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

*For improving application of the law and disruption of illegal networks*



- How adequate are the wildlife policy and laws in place? If the policy and/or law are not adequate, please describe how you believe this will affect your law enforcement action and whether you have plans to address any inadequacies.
- To what degree has corruption been an undermining force in applying the law in the past? How do you plan to address corruption, if at all?
- How supportive is the general public (nationally and at/near project site) of wildlife law enforcement? How do you think this support (or lack thereof) is likely to influence your wildlife law enforcement action? Please describe any plans you have to generate greater public support.

*For setting up and managing patrols*

- Who is doing the illegal activity? Applicants should justify how the people involved at the project site(s) can be realistically deterred by proposed patrols.
- Have you created a plan for the patrols that covers: (a) number of staff required, skills and equipment needed, training to provide those skills, realistic budgets for equipment and personnel; (b) coverage of key access points and transport routes; and (c) an element of unpredictability for when/where patrols will happen? Please justify response.
- Does your plan have patrols at sufficient frequency to encounter most/all of the illegal activity? Please justify response.
- Does your plan have realistic budgets for equipment and person power? Please justify response.
- How will the patrols be sustained (financially, materially, personnel) after project activities have ended?

**Recommended Indicators:** All grantees who are awarded USFWS funds for wildlife law compliance and enforcement are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance.

*For improving application of the law and disruption of illegal networks*

**Evidence that an effective system is in place to identify large-scale offenders (Includes both wildlife traffickers and those engaged in illegal forest clearing and/or land grabbing of wildlife habitat)**

- Since the start of this grant, describe how your capacity has developed/changed/improved to identify wildlife criminals, in particular the worst offenders?
- List the challenges you still face in identifying large-scale wildlife criminals.

**Evidence of large-scale wildlife crime admitted for court use**

- Please indicate the number of court cases for which you could produce evidence.
- Since the start of this grant, describe how your capacity has developed, changed, or improved to produce evidence for courts.
- Please list the challenges you still face in producing evidence. Please rate each for their ability to affect/hinder successful use of evidence in court.

**# of arrests of large-scale wildlife criminals resulting from project's investigations and/or operations support**

- Please list the number of large-scale offenders identified. If possible, estimate the % of the total number of large-scale offenders this number represents.
- Please provide a table of the arrests of wildlife criminals that have occurred since the start of this grant including: date; short description of arrest; any evidence of wildlife crime magnitude; media coverage of case (y/n).

**# and % of wildlife criminals who have been arrested that are successfully prosecuted, appropriately sentenced, and serve or complete jail terms and/or pay fines**

- For each case in the above table, was the offender prosecuted? In your judgment, how appropriate was the sentence?
- Did the sentenced offender serve their full jail term and/or pay their fines?

**% change in wildlife crime in project area**

- Since the start of the grant, how has wildlife trade changed?
- To what degree would you attribute this trend to wildlife crime enforcement and compliance efforts? Please provide evidence supporting this claim. If relevant, describe other factors that have an impact (positive or negative) on this trend.

**# and % of legal efforts undermined by corruption**

- For each legal effort, was there evidence of corruption? Were there sanctions against corrupt officials?
- Please describe whether and how corruption has influenced or hindered court proceedings (including arrests, prosecution, and/or sentences).

*For setting up and managing patrols*

**# and % of individuals adequately trained and equipped**

- How many individuals are adequately trained and equipped for patrols? What percentage does this represent of the patrol group? How did you calculate this response?

**# and % of patrols operating as scheduled**

- How many patrols have you sent out (per week / month / year)?
- How many km were patrolled?
- What % of the patrols in your plan operated as scheduled? If <90%, why?

**Encounter rate of suspected poachers**

- How many poachers did you encounter over the last assessment period? How many did you apprehend?
- What % of total poachers in the area do you think this is?
- What data did you use to make this assessment (e.g., encounter rate, evidence of camps, # of traps detected)?



- Have your patrol encounter rates changed over time? To what do you attribute these changes?

**# of incidents of poaching detected in field**

- To what degree have poaching incidents changed since you started the patrols?
- How many poachers have been prosecuted and/or fined?
- How many of the poachers are repeat offenders?

**# of individuals of targeted wildlife species at key sale or transport points**

- To what degree have poached items changed in sale or transport points since patrols were started?

**Evidence that items confiscated during field activities are appropriately destroyed or safely stored and do not re-enter wildlife trade or poaching activities**

**Encounter rate of suspected large-scale illegal forest clearing for agriculture, livestock, or colonization**

- How many did you encounter over the last assessment period? How many did you apprehend?
- What % of the total in the area do you think this is?
- What data did you use to make this assessment (e.g., encounter rate, evidence of camps, # of traps detected)?
- Have your patrol encounter rates changed over time? To what do you attribute these changes?

**Change in species population**

- How have populations of key species changed since patrols were implemented?

## ACTION #4: Environmental Law & Policy



Credit: USFWS (Ani Cuevas)

**Definition:** Actions to develop, change, and influence formal legislation, regulations, and voluntary standards including monitoring and promoting compliance with wildlife conservation laws and policies at the international, national, state/provincial, municipal, or tribal level.

**Monitoring Questions and Indicators:** The following are questions and indicators that USFWS grantees should answer when applying for funding and when reporting on the effectiveness of environmental law and policy activities.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

### *Target Audience and Expectations*

- Who is the target audience for the proposed activities? Are they the decision-makers? What influences them?
- What do people in the target audience already know about the conservation target, the threats, and how the proposed formal legislation, regulations, and voluntary standards can produce environmental, social or economic benefits?
- What knowledge, tools and strategies are needed to increase awareness and garner support for the proposed environmental laws and policy changes?
- Why are the wildlife policy and laws in place inadequate? Please describe how strengthening environmental law and policy is expected to support conservation activities in the field.

- How supportive is the general public of wildlife laws? How do you think this support (or lack thereof) is likely to influence outcomes? Please describe any plans you have to generate greater public support for policy reform that protects wildlife.

#### *Barriers and Motivations*

- What barriers are there for your target audience to adopt proposed environmental laws or policy recommendations? How do you expect those barriers will be addressed?

**Recommended Indicators:** All grantees who are awarded USFWS funds for environmental law and policy activities are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance.

#### **Degree to which recommendations are delivered to the right authorities**

- Did you deliver the recommendations to the implementer(s), agency(ies) and/or other departments and follow up with them to assure understanding, acceptance? If not, please explain.
- Did the agency use a formal plan to communicate information to the planning effort? If yes, which of the following groups were to be contacted?
- What mechanisms were used to communicate with decision makers?
- List the challenges you still face to engage and convince the right authorities.

#### **Degree to which recommendations are accepted by implementer**

- Were recommendations accepted? If not accepted, explain why to the best of your knowledge.

#### **Degree to which recommendations are incorporated into relevant legislation, regulations, policies or voluntary standards and documentation**

- Did agency(ies) add your recommendations to their legislation/ regulations/ policies/ voluntary standards and documentation? If not, explain why to the best of your knowledge.
- % of recommendations about priority areas/species and relevant best management practices incorporated into formal legislation/regulations/voluntary standards.

#### **Evidence of project actions influencing formal legislation to strengthen conservation**

- Please describe how those actions are leading toward achievable and replicable conservation at all levels.

#### **Evidence of threat reduction**

- What evidence is there that these actions have reduced key threats? Please describe. If not, what action (if any) did your project team take to address the fact that you were not seeing desired threat reduction?

## ACTION #5: Conservation Designations, Management and Planning



Credit: Ya'axche Conservation Trust

**Definition:** Actions to legally or formally protect sites and/or species. Legally or formally establishing protection or easements of some specific aspect of the resource on public or private lands outside of traditional protected area categories (see [IUCN Protected Area Categories I-VI](#)).

**Monitoring Questions and Indicators:** The following are questions and indicators that USFWS grantees should answer when applying for funding and when reporting on the effectiveness of conservation designation, management and planning activities.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

### *Priority Areas Mapped & Funding Available*

- Please provide the name and location, including latitude and longitude coordinates, for all areas you are working to formally protect.
- If you have a map or image file with priority conservation areas and habitat elements identified, please provide it as an attachment or provide a link to it.

- Do the projects or actions in this conservation area have enough funds to establish a protection presence? Please clarify your evidence or the basis for this assessment.

**Recommended Indicators:** All grantees who are awarded USFWS funds for conservation designation, management and planning activities are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance.

**Evidence that projects or actions are receiving enough funds to establish a protected area protection presence or easement.**

- To what degree has funding to the conservation area changed since the proposal was submitted?

**Evidence that site(s) is declared a protected area(s) or put into easement**

- Has/have the site(s) received official, legal declaration as a protected area? If no, please indicate the status, including stage of review by appropriate authorities and stakeholders, likelihood and expected timeline of legal designation, or explain if the site is unlikely to receive legal declaration.
- How many acres/hectares were prioritized as protected area/easement and what % were declared as a protected area or put into easement?

**% of land area that is appropriately marked, delineated or under a land use management plan**

- Approximately what proportion of the area or easement boundary is appropriately marked? If existing boundary markings are not sufficient, what plans or opportunities are there to improve them?

**Presence of a flexible, responsive site or species management plan approved and in place**

- Has a management plan been developed?
- Has it been approved by the relevant legal authorities? By desired stakeholders?
- To what degree does the plan accommodate decreases or increases in funding?
- Has this project contributed to any changes regarding the conservation priority status (Threatened/Endangered, etc.) of any target species?

**% of priority actions identified in site/species management plan that are being implemented**

- Please identify the (high-level) priority actions in the management plan.
- To what degree is the action being implemented?
- Please explain cases where high-priority actions are not being implemented as planned, or remain unfunded and why.

**Trend in # and quality of conservation actions at site**

- Since the protected area/easement/species designation, to what degree have the conservation actions at the site increased or decreased?

- To what degree has the implementation of conservation actions improved or declined?

**# and type of site infrastructure built/created/renovated**

- How has site infrastructure changed?
- How does the site infrastructure enhance the conservation of the resource?
- Does this qualify as green infrastructure?

**Evidence that illegal activities causing key threats at site/species have declined or stabilized**

- How have the threats changed since the designation of the protected area?
- Please explain any major differences, especially where threats have increased.

**Evidence of threat reduction**

- Do you have evidence that this action is leading toward reduction of key threats? Please describe. If not, what action (if any) did your project team take to address the fact that you were not seeing desired threat reduction?

## ACTION #6: Training and Capacity Development



Credit: IFAW / St. George's University

**Definition:** Enhancing knowledge, skills and information exchange for practitioners, stakeholders, and other relevant individuals in structured settings outside of degree programs to carry out desired conservation actions/practices and/or reduce identified threats.

**Monitoring Questions and Indicators:** The following are questions and indicators that USFWS grantees should answer when applying for funding and when reporting on the effectiveness of training and capacity development activities.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

### *Target Audience and Expectations*

- Who is the target audience for the training/capacity building activities? What are the criteria for selecting the trainees?
- Have you worked with these individuals before? If so, please explain.
- Have these individuals requested the training/capacity development? Please explain.
- Do trainees have the necessary authority, time, resources, respect and acceptance



to apply the new competencies within their organization and/or community? Please explain.

- What specific conservation actions (practices) do you expect or need the individuals to take to reduce threats as a result of this training/capacity development? Why are these actions needed?
- How many people need to be trained to achieve the desired conservation impact? Please justify your assessment.
- Will the trainees need materials, financial assistance and/or further technical assistance in order to successfully implement future conservation actions?
- How will trainee's learning of new competencies be measured?
- How is the training program part of a bigger more comprehensive process?

#### *Knowledge, Skills, Attitudes, Practices Identified*

- What knowledge, skills, and attitudes does this audience need?
- Why are these knowledge, skills, and attitudes needed? Please justify your assessment.
- Will adaptive management approaches be included in the training?

#### *Training Environment, Curriculum, and Trainer*

- Identify pre-conditions that will influence the success of the training program.
- Have you conducted this training before? If so, please describe the conservation impacts, including if/how the previous trainees have been monitored to determine if they are still using the conservation practices from the training they received.
- To what degree do you have the needed supplies and equipment to conduct the training and capacity development?
- If you do not have all of the required supplies and equipment, what provisions have you made to acquire them?
- What delivery method will you use for your training? Please include the curriculum you will use, if available. Explain the rationale for selecting the delivery method.
- What are the criteria for selecting the trainer(s)/instructor(s)? How and why were the trainers/instructors selected? Please describe their qualifications for this training.
- How do you expect any shortfalls will affect the ability of trainees to apply the new competencies?

**Recommended Indicators:** All grantees who are awarded USFWS funds for training and capacity development are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance.

#### **Number and percentage of individuals selected that complete training**

- How and why did you select the people to be trained?
- Do you expect a conservation action to be carried out as a result of this training? If "yes," what action do you expect and how many people need to be trained to implement the conservation action(s) to achieve the desired results?

- How many people participated in the training relative to number needed? How many of those completed the training? If there is a shortfall between the number completing training and the number needed to adequately implement desired conservation action, how are you going to address that?
- What is the potential of this training to be replicated (e.g. locally, regionally, nationally)? Why and in which area?
- Has the training been integrated into the beneficiary institutions/organizations' professional development and/or education systems, if appropriate?

**Number and percentage of trainees that demonstrate desired competencies (knowledge, skills, and attitudes)**

- What percentage of trainees demonstrate the desired: (a) knowledge, (b) skills, and (c) attitudes? How did you make this assessment?
- What were the barriers preventing trainees from demonstrating the desired knowledge, skills, and/or attitudes?

**Number and percentage of trainees successfully carrying out desired practices at least once to appropriate problems**

- Approximately what percentage of trainees have the necessary conditions to be able to successfully apply acquired competencies?
- Of these, approximately what percentage successfully apply acquired competences? Please explain if some are not able to apply them correctly.
- Were adaptive management approaches included in the training? If so, please describe how they are being implemented or if there are barriers to implementation.

**Evidence of threat reduction**

- What evidence is there that this training and capacity building action is leading toward the reduction of key threats? Please describe. If not, what action (if any) did your project team take to address the fact that you were not seeing desired threat reduction?

## ACTION # 7: Partnerships



Credit: WCS

**Definition:** Engaging selected stakeholders, including government authorities, local communities, NGO representatives, private sector, and other strategic partners to achieve/facilitate shared objectives and broader coordination across overlapping areas. Partnerships are not an end in themselves. They are formed to achieve clear goals with the understanding that by acting together partners can accomplish more than by acting alone.

**Monitoring Questions and Indicators:** The following are questions and indicators that USFWS grantees should answer when applying for funding and when reporting on the effectiveness of partnership activities.

**Application Questions:** All applicants who are requesting USFWS funds are encouraged to clearly address and answer the following questions in the proposal:

*Outcomes Requiring Strategic Partnership Clearly Identified*

- What are you trying to achieve that requires one or more partnerships?

*Partners Identified and Contacted*

- Who are the partners you need to engage to help you achieve your objectives or help you successfully implement your conservation actions?

- Why are they the best partners for your work?
- Is the partnership's vision, mission, and values clearly stated, reflect a strong focus on improving conservation actions, and firmly supported by the partners?
  - Are the partnership's goals, objectives, and programs based on community needs with substantial community input?
  - Are the partnership's goals and objectives set forth in a written document and shared with key stakeholders, including the community the partnership serves?
  - Do the goals and objectives of the partnership include meaningful and measurable outcomes and a timeline for achievement?
  - Is information regarding progress towards the partnership's goals and objectives regularly provided to the partners, the community, and other key stakeholders?
- **Have the partners jointly designated highly-qualified and dedicated persons to manage the partnership and its programs?**
  - Are leadership roles, responsibilities and decision-making authority defined in writing, honored by key parties, and updated on a regular basis?
  - Do the partners and members of the partnership's staff share "ownership" of the partnership and demonstrate commitment to its long-term success?

**Recommended Indicators:** All grantees who are awarded USFWS funds for partner engagement are encouraged to monitor the following indicators, and be able to respond to the associated questions, when reporting on performance (see Annex 1 for complete list):

**Did the partnership implement the proposed programs effectively, successfully, sustainably?**

- Did partners identify and secure the necessary resources (human and financial)?
- Were the communication channels among the partners, staff, the community, and other stakeholders clear, transparent, and effective?
- Did the partnership assess community conservation needs, prioritizes those needs, and develop evidence-based programs and strategies to address them?
- Is there solid evidence of community engagement and support for the partnership goals and objectives?

**Degree to which desired outcomes were achieved**

- Which desired outcomes identified in the proposal were achieved through the partnership? For those outcomes partially achieved, explain to what degree they were achieved and the prospects for full achievement.
- Has the partnership contributed to the achievement of the desired outcomes? If not, what are the barriers?
- What conservation actions occurred as a result of this partnership?

**Evidence of threat reduction**

- What evidence is there that the partnership produced the desired threat reductions and conservation impacts? Please describe. If not, what action (if any)

did the partnership take to address the fact that you were not seeing desired threat reduction?

### 3. Indicators for Key Threats

Although conservation practitioners are ultimately interested in protecting or restoring biodiversity, much of the day-to-day work of conservation involves taking action to counter **direct threats or pressures** – the human activities that negatively impact an ecosystem and/or species of concern (e.g., unsustainable logging, fishing, and agricultural expansion).

Understanding threats is a critical step in many stages of the conservation process, such as determining the conservation status of a given species population or site, setting priorities as to where to work, developing strategies to address threats and their drivers, assessing whether a project or program is achieving its desired results, and analyzing and comparing results to promote learning. More specifically, threat indicators are used both to assess the status of a given species population or site (regardless of any actions being taken) as well as to provide an indicator of the effectiveness of a given action.

We developed indicators for some of the most common threats facing wildlife in Central America. These include:

1. Agricultural encroachment
2. Illegal cattle ranching
3. Human-wildlife conflict
4. Commercial hunting of wildlife (includes plants and timber)
5. Removal of animals from the wild for pet trade

## THREAT #1: Agricultural Encroachment



Credit: WCS

**Definition:** Loss of wildlife habitat from expansion of agricultural areas and human settlements.

### Units of Analysis / Core Information Needs:

For a given management area, buffer zone, or geographic region:

- How much wildlife habitat is being lost to expansion of agricultural areas / settlements?
- How much of this expansion is driven by government agency policies? Please describe.
- To what degree are USFWS-funded actions helping to reduce habitat loss / degradation?

### Recommended Indicators:

**Total ha / % of management area encroached by specific harmful agricultural or colonization activity, ideally by type of encroachment**

*Pros:* Relatively direct indicator of the threat

*Cons:* Can be more expensive depending on what data exist and accuracy needed

Desired results:

- Reduction in total ha/% of management area encroached by specific harmful agricultural or colonization activity.



## THREAT #2: Illegal Cattle Ranching



Credit: Asociación Balam

**Definition:** Loss of wildlife habitat from expansion of illegal cattle ranching activities.

### **Units of Analysis / Core Information Needs:**

For a given management area, buffer zone, or geographic region:

- How much wildlife habitat is being lost to expansion of illegal cattle ranching?
- How much of this expansion is driven by government agency policies? Please describe.
- To what degree are USFWS-funded actions helping to reduce habitat loss / degradation?

### **Recommended Indicators:**

#### **Total ha / % of management area encroached by illegal cattle ranching**

*Pros:* Relatively direct indicator of the threat

*Cons:* Can be more expensive depending on what data exist and accuracy needed

#### Desired results:

- Reduction in total ha/% of management area encroached by illegal cattle ranching.

#### **# of heads of cattle in management area**

*Pros:* Relatively direct indicator of the threat

*Cons:* Can be more expensive depending on what data exist and accuracy needed

Desired results

- Reduction in total illegal heads of cattle within management area

## THREAT #3: Human-Wildlife Conflict



Credit: WCS

**Definition:** Interaction between wildlife and humans which causes harm to people, wildlife and/or property.

### **Units of Analysis / Core Information Needs:**

For a given site:

- How much wildlife is being lost due to human wildlife conflict?
- How much of this conflict is driven by government agency policies? Please describe.
- To what degree are USFWS-funded actions helping to reduce human-wildlife conflict?

### **Recommended Indicators:**

#### **Total ha / % in management area under wildlife friendly practices**

*Pros:* Can be relatively inexpensive depending on what data exist

*Cons:* Indirect indicator of the threat

#### Desired results:

- Increased adoption of wildlife friendly land use practices

**# of retaliatory killings against wildlife and/or # of conflicts between humans and wildlife (e.g. predation events)**

*Pros:* Direct indicator of the threat

*Cons:* Can be difficult to monitor and measure

Desired results:

- Reduction of retaliatory killings of wildlife
- Reduction or elimination of conflicts between humans and wildlife

**Targeted species abundance**

*Pros:* Direct indicator of ultimate threat impact

*Cons:* Need people to collect and analyze the data; may be less reliable

*Other Comments:* Depends on level of effort, so requires careful interpretation

Desired results:

- Increase in targeted species abundance

## THREAT #4: Commercial Hunting of Wildlife



Credit: WCS

**Definition:** Removal of wildlife, plants and timber from natural ecosystems for illegal consumption, commercial sale or trade.

### **Units of Analysis / Core Information Needs:**

For a given management area or geographic region:

- What species are targeted by commercial hunting and harvesting?
- How are hunting and harvesting pressures changing over time generally and for each species?
- To what degree are USFWS-funded actions helping to stop commercial hunting and harvesting?

### **Recommended Indicators:**

#### **# of individuals by species at key sale or transport points**

Pros: Fairly good indicator of threat, could be part of regular patrol reports

Cons: Depends on openness of markets (less effective if black markets) and

representativeness of the sample

Other Comments: Presence/absence of species in samples is a cheaper alternative

Desired results:

- Decreased availability, commercial consumption and/or use of illegal wild animals, plants and timber.

### **# of incidents of poaching/illegal harvesting detected in field**

Pros: Fairly good indicator of threat, could be part of regular patrol reports

Cons: Survey/transect method is more costly; analysis of patrol reports method depends on quality of patrols and is vulnerable to corruption.

Other Comments: Depends on level of effort, so requires careful interpretation

Desired results:

- Reduced illegal and/or unsustainable harvesting of wildlife, plant and timber.
- Increased application of wildlife protection laws by in-country decision-makers and law enforcement agents.

### **Targeted species abundance**

Pros: Direct indicator of ultimate threat impact, relatively less expensive

Cons: Need people to collect and analyze the data; may be less reliable

Other Comments: Depends on level of effort, so requires careful interpretation

Desired results:

- Increase in targeted species abundance



## THREAT #5: Removal of Animals from the Wild for the Pet Trade



Credit: WCS

**Definition:** Capture of wild animals for sale as pets.

### **Units of Analysis / Core Information Needs:**

For a given management area, geographic region or species population:

- How many animals of each species are being captured?
- To what degree are USFWS-funded actions helping to stop the removal of animals from the wild for the pet trade?

### **Recommended Indicators:**

#### **# of individuals (by species) confiscated / observed in pet trade**

Pros: Is relatively direct indicator of pet trade threat

Cons: Depends on degree to which sampling is biased

#### Desired results:

- Decrease in number of people owning wild pets
- Decrease in the demand for wild pets

### **Qualitative assessment of degree of openness / ease of trade**



Pros: Relatively cheaper to collect

Cons: Less direct indicator

Desired results:

- Decrease in number of wildlife markets
- Decrease in the demand for wildlife