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MEASURING IMPACT

MEASURING EFFORTS TO COMBAT WILDLIFE CRIME

A Toolkit for Improving Action and Accountability

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LIST OF ACRONYMS

ADS   USAID Automated Directives System

CITES   Convention on International Trade in Endangered Species of Wild Fauna and Flora

CMP   Conservation Measures Partnership

CWC   Combating Wildlife Crime

CWT   Combating Wildlife Trafficking

E3/FAB   USAID Bureau for Economic Growth, Education, and Environment; Office of Forestry and Biodiversity

MEL   Monitoring, Evaluation, and Learning

MI   Measuring Impact Project

NGO   Non-governmental Organization

TOC   Theory of Change

UNCBD   United Nations Convention on Biological Diversity

UNODC   United Nations Office on Drugs and Crime

USAID   U.S. Agency for International Development

INTRODUCTION

Killing protected or managed species and the illegal trade in wildlife and their related parts and products (hereafter wildlife crime, but see Box 1) are among the most severe threats to global biodiversity. Globally, hundreds of millions of individual animals belonging to hundreds of species are the targets of illegal harvesting and trade. Wildlife crime not only threatens the survival of focal species, but may also significantly alter ecosystem function and stability when one or more species are substantially depleted or even made locally extinct.

High-value wildlife products are often trafficked by organized criminal syndicates and are known to finance violent non-state actors including terrorist groups and unsanctioned militias. Armed conflict can exacerbate wildlife killing and trafficking, and trafficking is frequently associated with other forms of crime such as money laundering (Loucks et al. 2009; UNODC 2012). Additionally, wildlife criminals generate insecurity in rural communities and are responsible for killing park rangers, which hurts morale and recruitment of park staff and reduces tourism and associated revenue needed for conservation and community development. For developing countries, loss of revenue from trade, taxes, and/or tourism can be significant and particularly damaging (Rosen & Smith 2010). The illegal trade in wildlife can also introduce and/or spread pathogens endemic to the exporting regions or transmitted during transit (Gómez & Aguirre 2008). This poses a major risk to human and livestock health, with implications for food security, commerce, and labor productivity (consider recent outbreaks of Ebola virus, SARS, and avian influenza). Despite focused efforts often lasting several decades, wildlife crime remains a global threat (Broad & Damania 2010; Sharma et al. 2014).

The importance of wildlife crime as a threat to conservation and development has attracted the attention of governments, non-governmental organizations, research institutions, and multilateral organizations all over the world. Strategies to combat wildlife crime depend on accurate and reliable knowledge about the status of focal species and the basic attributes of illegal wildlife supply chains.[1] However, the clandestine nature of this activity, its geographic spread, the large number of people involved, and the size of the trade make analysis of status and trends, as well as measuring progress in combating it, a challenge (Blundell & Mascia 2005; UNODC 2012). A report by the United Nations Office on Drugs and Crime report concludes that many of the available figures on wildlife crime "are the result of guesswork rather than of systematic analysis" (UNODC 2012). Global knowledge about wildlife crime remains fragmented and lacking in common standards, which hinders the design, implementation, and monitoring of strategies to combat it.

USAID has a long history of investing in programs that support compliance with and enforcement of laws and regulations to protect wildlife, as well as other strategies aimed at decreasing the threats to conservation and development stemming from wildlife crime. In support of President Obama's Executive Order 13648 and the National Strategy to Combat Wildlife Trafficking, as well as associated funding and directives for USAID to increase programming on these issues, the Office of Forestry and Biodiversity in USAID's Bureau for Economic Growth, Education and Environment (E3/FAB) identified a need to adopt or develop robust indicators with which to track progress on USAID's investments in combating wildlife crime (CWC) and gauge the effectiveness of different approaches.

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[1] The term "supply chain" is used in this context to describe the steps taken to acquire, transform and transport an illegal wildlife product from wild, native habitat to the end consumer. Different products have different supply chains.

Box 1. Wildlife Crime, Poaching, Wildlife Trafficking, Illegal Wildlife Trade: Which is Which?

This document is concerned with monitoring efforts that curb or stop illegal taking, transport, sale, and purchase of wild animals. A variety of terms have been applied to this threat over the years, so which one is correct? Major options include:

- **Poaching:** illicit harvest of an animal, including taking, that is not the allowed species, size, age or sex; using illegal equipment to hunt or fish; failing to acquire a permit to hunt or fish; and harvesting outside of the allowed season or place
- **Illegal Wildlife Trade:** illicit commerce in animals or their parts, usually intended to include production (harvest, transformation into a product), transport and sale. Solutions include reducing consumer demand for wildlife products.
- **Wildlife Trafficking:** often interchangeable with the previous term, this may also specify illicit trade *after* poaching has occurred. In the U.S. National Strategy to Combat Wildlife Trafficking, the term deliberately encompasses both poaching and illicit trade.
- **Wildlife Crime:** actions that break laws that govern wildlife, including all of the above. Though money is the primary driver, personal use or gratification can also be a factor.

To compound the challenge, each term is interpreted by some to include any living thing, especially plants – literally, *wild life*. In contrast, the U.S. Strategy to Combat Wildlife Trafficking is concerned with terrestrial and aquatic animals but not plants.

This document uses the term "wildlife crime" to describe the continuum of threats and solutions, specifying "poaching" when concerned with preventing initial harvest, and specifying "wildlife trafficking" when concerned with preventing products from being made available for sale and profiting the increasingly organized criminals involved in wildlife crime.

As part of these efforts, Measuring Impact[2] staff collaborated with experts from E3/FAB, other US Government Agencies, and other organizations involved in combating wildlife crime to undertake a carefully planned approach to indicator selection.

NEED FOR CUSTOM INDICATORS FOR COMBATING WILDLIFE CRIME

Indicators can serve many useful purposes when they are consistently monitored, the data is regularly analyzed, and results are disseminated. However, indicators and data are not useful in and of themselves. Instead, they need to be fit into a larger monitoring, evaluation, and learning (MEL) system. When effective, robust MEL systems serve several purposes:

- Provide critical feedback to project managers on the effects of their strategic approaches over time to assist them in adjusting program implementation;
- Supply project evaluators with information about project outcomes;
- Assist policymakers to gauge whether public money is being spent efficiently; and,
- Provide answers to key questions about the enabling conditions, assumptions, and expected results from project implementation.

MEL efforts are enhanced with the use of consistent indicators across projects so that data can be aggregated and compared for analysis of broader impact and to support informed decision-making. Comparable indicators can also help build an evidence base to determine the conditions under which

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[2] Measuring Impact (MI) is a five-year program of USAID's Office of Forestry and Biodiversity that is working to strengthen USAID's biodiversity programs by (1) improving best practices in implementing the USAID Program Cycle for biodiversity-funded programs, and (2) developing evidence to support decisions in conservation and integrated programming.

strategic approaches are likely to be most successful in achieving their purpose.

Furthermore, the USAID Biodiversity Policy and the updated criteria for using biodiversity-earmarked funds (the "Biodiversity Code") dictate that biodiversity programs "*must monitor indicators associated with a stated theory of change for biodiversity conservation results.*" These indicators can be custom indicators, standard indicators, or a combination of both. To this end, USAID has set out to develop a set of custom indicators (see Box 2) for use by Missions in project design and reporting on projects related to combating wildlife crime, many of which contribute to existing Foreign Assistance standard indicators, or are themselves standard indicator candidates.

Box 2. Types of Indicators

Standard indicators are used primarily for reporting purposes. Annual performance reporting by the United States Department of State and USAID draws on these types of indicators, found in a Standard Foreign Assistance Framework.

Custom indicators measure progress towards results within each unique country or program context. Custom indicators provide greater specificity than standard indicators and are generally more sensitive to change.

Contextual indicators are used to understand the broader environment in which a program operates, to track assumptions, or to examine externalities that may affect success, failure, or progress. They often represent a level of change that is outside the manageable interest of program managers, but still useful for decisions on where to allocate effort.

See the Performance Management Plan Toolkit (USAID 2014), Module 2.2, for more detail on different types of indicators.

A COMPLETE TOOLKIT FOR IMPROVING ACTION AND ACCOUNTABILITY

USAID's resources for measuring efforts to combat wildlife crime include three related companion pieces. This toolkit is meant as the primary resource. Two sets of indicators – one for use at the project and activity levels, another for use at the portfolio[3] level – are presented, along with a collection of associated tools (situation model, theories of change and results chains for common strategic approaches) that were used to identify where monitoring is most needed. The tools created in support of indicator development are also expected to be useful resources in their own right for host governments, donors, and project implementers engaged in program design and proposal review.

In addition to this document, two surveys of potentially relevant indicators may assist with the indicator-selection process:

- **Summary of Indicators for Combating Wildlife Trafficking** (MI 2015) presents a comprehensive list of more than 200 indicators currently being used by other organizations to measure efforts to combat wildlife crime. They are broadly categorized by their related common strategic approaches. An analysis of trends across the indicator set found that most of the indicators identified are not being used consistently or have not been regularly monitored.

- **CWT Indicators: Insights from Sectors Outside Conservation** (USAID forthcoming) compiles indicators from sectors concerned with public health, democracy and governance, and human trafficking that might be relevant to combating wildlife crime. No trend analysis was performed for this indicator set.

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[3] See Appendix C for a definition of *portfolio*, and considerations for monitoring at this level.

APPROACH TO INDICATOR SELECTION

Monitoring efforts often focus on short-term project outputs and the status of **biodiversity focal interests** (sometimes referred to as conservation targets). However, this approach presents challenges for monitoring progress along a theory of change, answering questions related to the effectiveness of strategic approaches, and testing key assumptions about how the strategic approaches are expected to lead to desired outcomes. Short-term project outputs such as the number of people trained or the number of policies drafted are not enough – outcomes (short-, mid- and long-term) must be tracked as well. Similarly, tracking changes in the status of biodiversity focal interests such as the population of wild elephants or quality of habitat is not enough to provide a full picture of how actions address threats and drivers that must be changed to achieve desired results. Tracking changes in status also frequently presents technical challenges: there may be a substantial time lag between the implementation of a strategic approach and any perceptible change in the status of the biodiversity focal interest, and measuring species populations and habitat attributes with sufficient accuracy can be a difficult and expensive proposition. Furthermore, there may be many actions and factors affecting the biodiversity focal interest, making it difficult to parse out the contributions of any one action.

THEORY OF CHANGE APPROACH

A **theory of change**[4] (periodically abbreviated as TOC) is a description of the logical causal relationships between multiple levels of conditions or interim results needed to achieve a long-term objective (USAID ADS, Series 200). It outlines *assumed* if-then relationships that link a strategic approach to intermediate results and the final desired impact.

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[4] See Glossary for definition of bolded terms throughout document.

The theory of change approach (see Box 3) facilitates the identification of indicators to track project results beyond just outputs, but before project impact. It does this through the use of **situation models** (commonly referred to as conceptual models) and results chains. Situation models are a tool to explore and illustrate the underlying drivers and threats to biodiversity focal interests (see Appendix A for more detail).[5] Situation models provide design teams a way to organize evidence from assessments and other sources of information in a concise, logical fashion that better prepares them to make informed decisions and, by extension, identify the best strategic approaches to achieve biodiversity conservation.

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[5] See also forthcoming document, *Developing a Situation Model for Biodiversity Programming (MI Forthcoming 1).*

Figure 1: Example TOC Results Chain
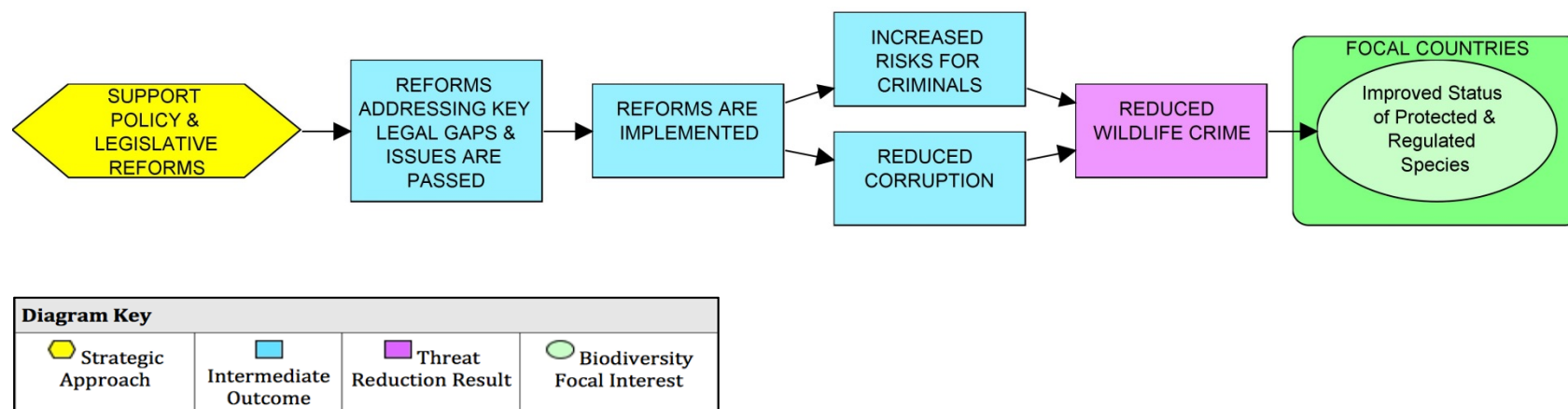
Results chains build off of the situation model and are used to describe a theory of change for a specific strategic approach (see Appendix B for more detail).[6] These diagrams show how a project team expects that their strategic approach will lead to intermediate results and ultimately to improvements in the status of the biodiversity focal interests. A simplified results chain is shown as an example in Figure 1, above.

Using a results chain, **key results** can be identified for monitoring. For each key result, the logic in the theory of change can be used to develop **outcome statements** and indicators for assessing progress at the project level or across a portfolio of similar projects.

In addition to their application for indicator development and selection, results chains and situation models can be used for several complementary purposes. For example, they can help identify research gaps for inclusion in Mission, project, or activity learning agendas, or be included as a reference or requirement in solicitations to more clearly articulate desired results, outcomes, and monitoring. Additionally, technical evaluation committees can use these tools to more critically evaluate applications or proposals by comparing proposed actions and results to a theory of change that they have developed and agreed to. Finally, results chains can be used to structure implementing partners' work plans and M&E plans and the reporting and learning associated with them.

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[6] See also forthcoming document, *Biodiversity How-To Guide: Using Results Chains to Depict Theories of Change in USAID Biodiversity Programming (MI Forthcoming 2).*

PROCESS FOR CREATING CUSTOM INDICATORS

E3/FAB's process for developing the customized indicators presented in this report emphasized the collection of information and input from wildlife crime experts both within and external to the Agency. The indicator-selection process progressed through two distinct stages. Key steps are outlined below with the time frame indicated in parentheses:

Stage 1: Development of CWC Metrics Draft Report

1. Develop a generalized, high-level situation model that describes the drivers, threats, and focal interests related to multiple aspects of wildlife crime, including supply, demand, and governance factors (November 2014 – December 2014);

2. Identify the common strategic approaches for addressing wildlife crime on which the Agency will monitor progress (December 2014 – February 2015);

3. Based on the situation model, describe the general theory of change and develop a results chain for each common strategic approach to show how the action will lead to desired impacts (February 2015– March 2015);

4. Identify key results at different points along each results chain where monitoring efforts should be focused (March 2015);

5. Define general outcome statements for key results to specify, to the extent possible, the expected outcome for each key result (March 2015);

6. Define a limited set of candidate indicators (drawing upon aforementioned indicator surveys) to assess progress, at the activity, project, and portfolio levels, towards achievement of outcome statements for each identified key result along each results chain (March 2015 – May 2015). Portfolio-level indicators are intended to capture results across activities or projects within the financial interest of one organization implementing or supporting several

related programs. Portfolio-level indicators may also provide a learning opportunity among peer organizations and donors with programs in a specific geography or applying similar approaches. See Appendix C for some considerations specific to portfolio-level indicators.

The process engaged multiple stakeholders within USAID, other U.S. government agencies, and NGOs before, during, and after a day-long workshop hosted by E3/FAB in March 2015. At this workshop, draft theories of change were vetted, and key results and candidate indicators were suggested. The CWC Metrics Draft Report, which forms the basis for this current document, summarized the results from this meeting.

Stage 2: Refinement of TOCs, results chains, key results, and candidate indicators through Mission review

1. Via a series of webinars, introduce E3/FAB's effort to develop indicators for combating wildlife crime to Mission staff and disseminate the draft report to Mission staff through email (May 2015);

2. Conduct a series of small-group calls with Mission staff to vet TOCs and refine results chains, key results, and indicators of each TOC (June 2015 – July 2015);

3. Synthesize Mission input and revise results chains, key results, and indicators for each TOC (July 2015 - August 2015);

4. Finalize indicators for results-chain factors shared by multiple TOCs, and harmonize full suite of indicators and tools (August 2015 - September 2015).

E3/FAB gauged the practicality of candidate indicators before putting them forward as recommendations by identifying at least one likely data collection method for each. Users of these recommended indicators should customize them and set targets appropriate to the context in which they are working, considering criteria for what makes a good indicator (see Box 4).

Additional details for each indicator (e.g., USAID Performance Indicator Reference Sheets) will be developed to assist the Agency, its implementing partners, and other users with employing consistent data collection and interpretation, to enable comparison and analysis of data across projects and activities.

Box 4. Criteria for a Good Indicator

Indicators should meet the following criteria:

- **Measurable** – Able to be recorded and analyzed in quantitative and qualitative terms
- **Precise** – Defined the same way by all people
- **Consistent** – Not changing over time so that it always measures the same thing
- **Sensitive** – Changes proportionately in response to the actual changes in the condition being measured
- **Objective** – Conducive to impartial and independent data collection, management, and analysis
- **Practical and Useful** – Data measured will be useful for management decision-making
- **Disaggregated** – Able to be disaggregated by gender, age, location, or other relevant dimensions

In addition, the best indicators will be technically and financially feasible and of interest to partners, donors, and other stakeholders. See Section 2.2 and Annex 7 from the Performance Management Plan Toolkit (USAID 2014) for additional considerations and criteria for indicator selection.

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GENERAL SITUATION MODEL FOR COMBATING WILDLIFE CRIME

The combating wildlife crime situation model (Figure 2, preceeding page) was developed to provide a high-level overview of wildlife crime. The model is generalized; it is not context specific, but includes factors that might be applicable for any regional, national, or local context. For example, in a specific context the biodiversity focal interest (species) would be identified and only those threats and drivers that are applicable would be included in the model. The model also served as the foundation for the development of theories of change for common strategic approaches.

NARRATIVE DESCRIPTION OF SITUATION MODEL

Recognizing that wildlife crime occurs across multiple scales, four scope boxes representing different country contexts were included. Each includes protected and regulated species as biodiversity focal interests. These potential scopes are:

- Wildlife products derived from animals sourced and consumed within a country;
- Wildlife products derived from animals sourced within a country and exported;
- Wildlife products derived from animals sourced outside of a country and consumed within the country; and,
- Wildlife products derived from animals sourced outside a country and transmitted through a country to be exported.

The main threats identified for protected and regulated species are:

- Illegal killing and/or collecting for non-commercial use;
- Illegal killing and/or collecting for illegal domestic and international trade; and
- Illegal domestic and international trade of legally killed and/or collected wildlife.

Other threats, not specifically related to wildlife crime, also impact protected and regulated species, but were not specifically included in this generalized model. An "Other Threats" box was included as a prompt to assist program design teams in adapting this model for a particular context.

For the specified threats, two main drivers were identified: high profits available to those who engage in wildlife crime and relatively low risk to perpetrators of wildlife crime (reflecting relatively low efficacy of wildlife law enforcement). Inadequate incentives for wildlife conservation are also noted as a lesser driver of participation in and complacency towards wildlife crime.

The factors contributing to these drivers are split into two groups: those related to consumer demand for illegal wildlife and wildlife products, and those related to the governance environment that enables wildlife crime.

On the demand side, profits for wildlife crime are driven by purchases and consumption of wildlife products, caused by a desire to buy and consume wildlife products (including items for basic livelihood needs, for the pet/aquarium trade and private collections, for cultural or traditional use, used for gift giving or to show status, and used as medicines or foods for global markets). Increasing discretionary income in some consumer countries is contributing to demand, as is speculative investment in high-value products.

Contributing to the desire to buy or consume wildlife products is research, development, and marketing by private sector firms in new wildlife products and private-sector transportation of illegal wildlife products, which increases their availability in markets. A fundamental driver of consumer desire for illegal

Figure 2: General situation model for combating wildlife crime.

Diagram Key: Strategic Approach | Driver | Threat | Biodiversity Focal Interest | Geographic Scope

CONSUMER DEMAND FOR ILLEGAL WILDLIFE & WILDLIFE PRODUCTS

- INADEQUATE PUBLIC PERCEPTION OF WILDLIFE VALUE
- INADEQUATE PUBLIC AWARENESS of consequences of wildlife crime
- INADEQUATE PUBLIC CONCERN for consequence of wildlife crime

PRIVATE SECTOR INVOLVEMENT enabling use of illegal wildlife products
- TRANSPORT of illegal products
- R & D of new products

INCREASING DESIRE TO BUY OR CONSUME ILLEGAL WILDLIFE PRODUCTS
- Basic livelihood needs
- Pet/aquarium trade & private collections
- Cultural traditions & preferences
- Status & gifting
- New medicines & foods for global market

SPECULATIVE INVESTMENT

INCREASING PURCHASE OR CONSUMPTION OF ILLEGAL WILDLIFE PRODUCTS (High Demand)
- High-value Products
- Low-value Products
- Subsistence Products

INCREASED DISCRETIONARY INCOME

INADEQUATE INCENTIVES FOR WILDLIFE CONSERVATION

HIGH PROFITS from Wildlife Crime

INCREASED RISKS FOR WILDLIFE CRIMINALS
- Low rate of detection
- Low probability of arrest
- Low probability of prosecution
- Low probability of conviction
- Low probability of appropriate penalty/deterrent applied to conviction

GOVERNANCE ENVIRONMENT ENABLING WILDLIFE CRIME

WEAK NORMS FOR COMMUNITY GOVERNANCE OF WILDLIFE CRIME

INADEQUATE INTERAGENCY COORDINATION & DATA SHARING
- National and Sub-National
- International

INADEQUATE ENFORCEMENT & PROSECUTION OF EXISTING LAWS & AGREEMENTS
- National and Sub-National
- International

LACK OF, OR POOR, LAWS & AGREEMENTS
- National and Sub-National
- International

MALADAPTED POLICIES (Subsidies) that enable wildlife crime

ORGANIZED CRIME & PARAMILITARY INVOLVED in wildlife crime

CORRUPTION & FRAUD

INADEQUATE RESOURCES

INADEQUATE TECHNICAL COMPETENCY
- Professional Patrols
- Judiciary
- Community Guards
- Customs & Border Agents
- Police

INADEQUATE CONSERVATION LEADERSHIP & SOCIAL TRUST TO ADDRESS WILDLIFE CRIME
- Decision Makers
- Law enforcement & judicial personnel
- Civil Society
- Communities & Individuals

INADEQUATE DATA COLLECTION & TRACKING SYSTEMS

CO-MINGLING OF LEGALLY & ILLEGALLY KILLED OR COLLECTED WILDLIFE
- Terrestrial species
- Marine species

FARMING OF ILLEGALLY KILLED, COLLECTED, OR TRADED SPECIES

LEGAL STOCKPILING

ILLEGAL KILLING and/or COLLECTING FOR NON-COMMERCIAL USE

ILLEGAL KILLING and/or COLLECTING FOR ILLEGAL DOMESTIC & INTERNATIONAL TRADE

ILLEGAL DOMESTIC & INTERNATIONAL TRADE OF LEGALLY KILLED and/or COLLECTED WILDLIFE

Other Pressures
- Threat X
- Threat Y

Sourced & consumed within country
- Protected Species
- Regulated Species

Sourced within country & exported
- Protected Species
- Regulated Species

Sourced out-of-country & consumed within country
- Protected Species
- Regulated Species

Sourced out-of-country & transitted through country
- Protected Species
- Regulated Species

wildlife products (and lack of incentives for wildlife conservation) is inadequate public perception of the intrinsic and environmental value of wildlife, along with inadequate public awareness of and inadequate public concern for the consequences of wildlife crime.

On the governance side, high profits are realized by perpetrators because of the low risks to wildlife criminals (reflecting relatively low efficacy of wildlife law enforcement) and maladapted policies (such as subsidies) that enable or even encourage wildlife crime.

This situation model looks at the multiple steps in the enforcement chain from detection to arrest, prosecution, conviction, and penalty that combine to provide a risk of negative consequences to wildlife criminals. The low risk to perpetrators of wildlife crime is caused by multiple factors both within a single country and internationally. These include weak norms for community governance of wildlife, a lack of (or poor) laws and agreements, inadequate interagency coordination and data sharing, and inadequate enforcement and prosecution of existing laws and agreements. The latter two factors are at least partially driven by inadequate technical competency (of police, customs and border agents, community guards, professional patrols, judges, prosecutors, and prison officials) and inadequate resources (both financial and human), and all are driven by a lack of social trust and conservation leadership to address wildlife crime (by decision makers, law enforcement and judiciary personnel, civil society, and communities and individuals).

Legal structures that allow for the farming of rare or endangered species and the legal stockpiling of wildlife products such as antique ivory or rhino horn enable the comingling of legal and illegal products. The existence of legal products makes it difficult for law enforcement and consumers to distinguish between legal and illegal products. This is especially true when data collection and tracking systems are inadequate. Comingling provides market access for illicit goods and therefore contributes to high profits for participation in wildlife crime.

The high profits for wildlife crime encourage participation by organized crime and paramilitary groups. Through military and political power, these groups are able to undermine political and social will to address wildlife crime. They also contribute to corruption and fraud, which undermines the law enforcement system.

COMMON STRATEGIC APPROACHES

An inventory of current and potential strategic approaches for combating wildlife crime was developed from a literature survey to inform the selection of common strategic approaches for indicator development. The inventory drew from multiple sources that were drawn together into an annotated bibliography (available online here), including the U.S. National Strategy for Combating Wildlife Trafficking, published articles on wildlife crime, NGO reports, and information gleaned from performance reporting on USAID programs (provided to MI by E3/FAB). Ten strategic approaches were chosen by E3/FAB for further consideration.

Strategic approaches 1-7 are those most commonly undertaken by USAID; they were reviewed and vetted with participants from USAID, other U.S. government agencies, and NGOs in the March 2015 workshop, and were reviewed and vetted by Missions. Strategic approaches 8-10 were reviewed and vetted in the March 2015 workshop and finalized by E3/FAB. The ten strategic approaches are listed and defined in Table 1 (opposite page). Note that the numbering of strategic approaches is provided for convenience only and is not meant to connote relative priority among the approaches.

Table 1: Common Strategic Approaches and their Definitions

| COMMON STRATEGIC APPROACHES	DEFINITIONS
Strategic Approach 1 Reduce Consumer Demand through Behavior Change Methodologies	Use of social marketing and other methodologies to raise awareness and change the behaviors of target audiences, especially consumer choices and reporting of illegal products and markets
Strategic Approach 2 Build Capacity for Effective Enforcement & Prosecution	Provision of financial or technical assistance to improve the capacity of governments and agencies to enforce wildlife laws and prosecute wildlife criminals
Strategic Approach 3 Build a Constituency for Effective, Accountable, and Transparent Government Action	Efforts to develop a robust and active civil society and media that can successfully advocate for improved transparency and accountability in how government responds to illegal activity, including wildlife crime and the corruption which frequently promotes or facilitates crime and prevents an effective response
Strategic Approach 4 Support National and Sub-national Policy and Legislative Reforms	Support the development, modification, and implementation of national and sub-national laws and policies related to wildlife crime in order to directly reduce threats or support other strategic approaches
Strategic Approach 5 Develop & Improve Use of Traceability Systems for Legal Products	Development of systems to track and trace wildlife products as they move through the supply chain with the goal of reducing fraud and comingling of legal and illegal products
Strategic Approach 6 Strengthen International & Interagency Coordination & Cooperation in Data Sharing & Enforcement	Support for national and international systems and processes to improve coordination and cooperation among agencies to combat wildlife crime
Strategic Approach 7 Increase Community Conservation Action and Support to Combat Poaching & Trafficking	Efforts to build community support and action to decrease poaching and illegal activity
Strategic Approach 8 Encourage or Increase Conservation Leadership by Decision Makers	The use of diplomatic tools such as high-level discussions, trade agreements and sanctions, multilateral forums to influence the knowledge, attitudes, and actions of decision makers in the target country
Strategic Approach 9 Improve Conservation Approaches through Better Information on Wildlife and Wildlife Crime Status and Trends	Data and information on species, habitats, and threats are used to inform decision making
Strategic Approach 10 Expand and Reform International Laws, Policies, and Agreements Addressing Wildlife Crime	The development, modification, and advocacy of international laws and policies related to wildlife crime in order to directly reduce threats or support other interventions.

THEORIES OF CHANGE AND RECOMMENDED INDICATORS FOR STRATEGIC APPROACHES

For each common strategic approach identified, USAID developed general results chains with narrative descriptions, identified key result s and associated general outcome statements, and candidate indicators (at the activity-, project-, and portfolio-level). TOCs (and associated key results, outcome statements, and indicators) are presented in this section. **Note**: in each results chain, threat-reduction results (light purple box) and improved status of focal interests (green-colored elements) are represented as single factors for simplicity. See figure 13 on page 55 for full detail.

STRATEGIC APPROACH 1:
REDUCE CONSUMER DEMAND THROUGH BEHAVIOR CHANGE METHODOLOGIES

Figure 2: Results Chain for Strategic Approach 1
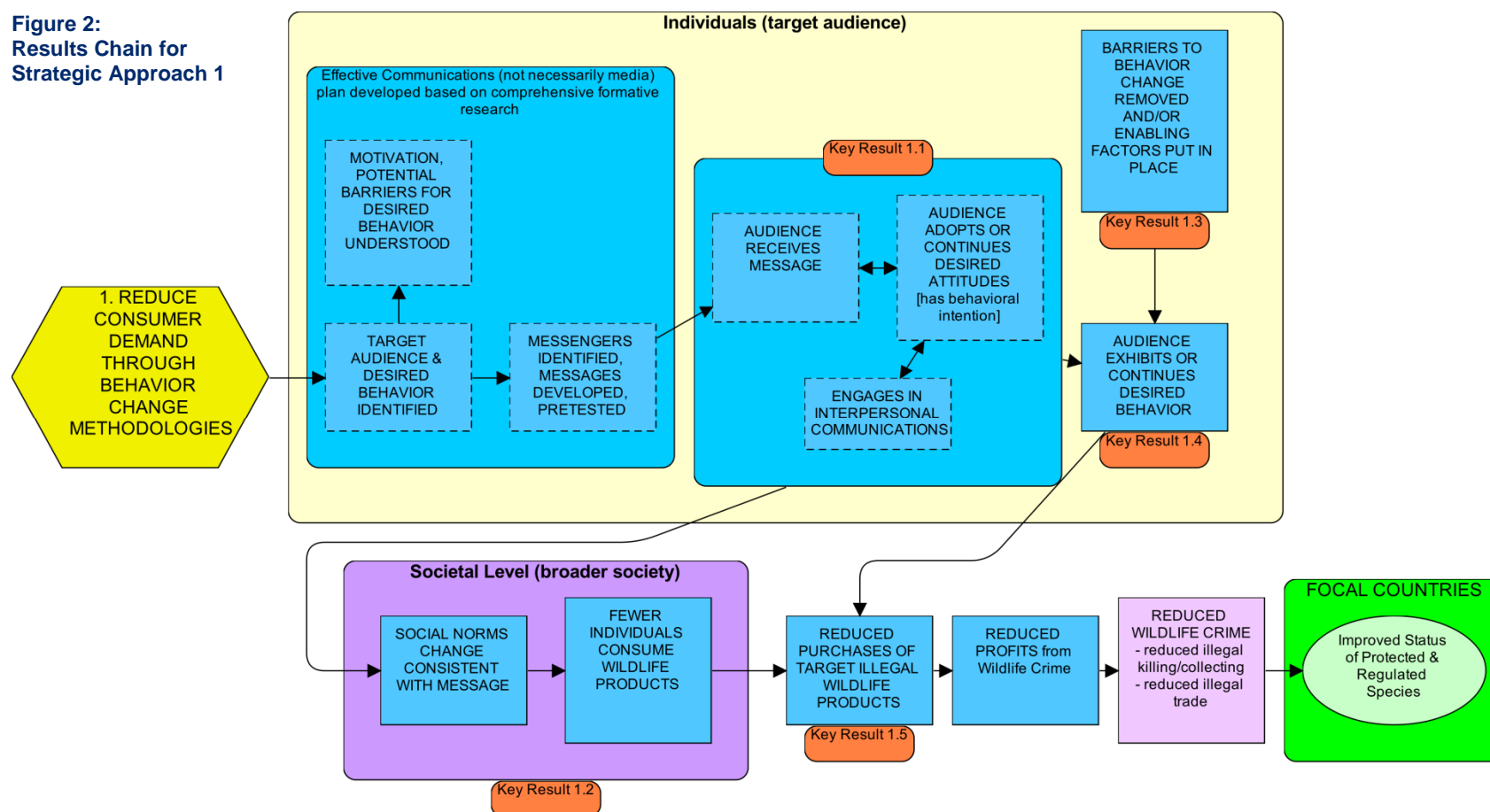
Definition:
Use of social marketing and other methodologies to raise awareness and change the behaviors of target audiences, especially consumer choices and reporting of illegal products and markets

Examples:
- Campaign to make eating shark fin soup socially unacceptable
- Efforts to encourage the purchase of sustainably-certified seafood products
- Campaigns to encourage reporting (hotline) of illegal pets in tourism industry

Related to:
- US CWT Implementation Plan: Raise Public Awareness and Change Behavior
- US CWT Implementation Plan: Promote Demand Reduction Efforts Globally
- US CWT Implementation Plan: Take the Profit Out of Wildlife Trafficking
- CMP[7] 3.1: Outreach and Communication (Promoting desired behavioral change by providing information through various media and other channels)
- USFWS 6: Public Campaigns (Raising environmental awareness and sharing information to change values
- [*sic*] and behavior through media or other mechanisms of public campaigns)

Description:
This theory of change starts with the identification of target audiences (i.e., specified demographic within a population in a targeted geography) and the behaviors that the campaign aims to change. Once these are established, the motivation for the current (undesirable) behavior and potential barriers to changing to the desired behavior are researched and understood for the target audience, and the messengers are identified and messages are developed and pretested. Once the target audience receives the messages and knowledge, and barriers to behavior change are removed or enabling factors for behavior change are put in place, the target audience should begin to adopt the desired attitudes and talk with other people about it (interpersonal communications), which will help with uptake of the message and adoption of desired attitudes by members of the target audience. When barriers are removed, attitudes are changed, and interpersonal communication occurs frequently, then the target audience should adopt or continue the desired behavior, leading to fewer purchases and therefore reduced rewards for the perpetrators of wildlife crime. This will lead to reduced occurrences of wildlife crime and improvements in status of protected and regulated species.

Additionally, as the target audience adopts the desired attitudes and communicates with others about them, there should be a change in social norms of the larger population, including improved perception of the value of wildlife, as well as awareness of, and concern for, the consequences of wildlife crime. These changes in perception, awareness, and concern in the general population should result in fewer individuals and actors engaging in the undesired behavior and further reductions in purchases of wildlife products.

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[7] Reference numbers here refer to the CMP Taxonomy for Conservation Actions, version 2 (currently in draft. Please contact authors for more information).

Key Result 1.1
Audience receives message, adopts attitudes, engages in interpersonal communication

Outcome Statement: Within XX months of initiative launch, X% of target audience receives new messages, Y% changes attitudes, Z% engages in increased interpersonal communication on the topic.

Project-level Indicators:

a. % of target audience that receives message (USFWS 2014)

b. % of target audience that changes desired attitudes

c. % of target audience that engages in increased interpersonal communication on the topic

Portfolio-level Indicator: % and # of initiatives that met objectives for the target audience receiving the message, changing attitudes, and engaging in increased interpersonal communication

Key Result 1.2
Fewer individuals consume wildlife products (consume defined as "ingest as medicine or food, wear, display, accept as gift, or otherwise use")

Outcome Statement: Within XX months of initiative launch, the # individuals in general population engaged in undesired behavior is decreased by X% points.

Project-level Indicator: % point change in # individuals in general population engaged in undesired behavior

Portfolio-level Indicator: % and # of initiatives with evidence of a decrease in # individuals in general population engaged in undesired behavior

Key Result 1.3
Barriers to behavior change removed and/or enabling factors put in place

Outcome Statement: Within XX months of initiative launch, X% of target audience has barriers to the desired behavior removed and/or the desired behavior enabled.

Project-level Indicator: % of target audience for which main barriers are removed and/or for which the desired behavior is enabled

Portfolio-level Indicator: % and # of initiatives that met objectives for barrier reduction and/or the enabling of the desired behavior

Key Result 1.4
Audience exhibits or continues desired behavior

Outcome Statement: Within XX months of initiative campaign launch, the proportion of target audience exhibiting desired behavior increases by X percentage points."

Project-level Indicator: % point change of target audience that exhibits or continues desired behavior

Portfolio-level Indicator: % and # of initiatives/campaigns that met objectives for change in target audience behavior

Key Result 1.5
Reduced purchases of target illegal wildlife and wildlife products

Outcome Statement: Within XX months of initiative launch, target wildlife and wildlife product purchases are reduced by X% points.

Project-level Indicator: % change in purchases of target illegal wildlife products (DEFRA 2014)

Portfolio-level Indicator: % initiatives that show reductions in purchases of target illegal wildlife products

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STRATEGIC APPROACH 2:
BUILD CAPACITY FOR EFFECTIVE ENFORCEMENT & PROSECUTION

Figure 4: Results Chain for Strategic Approach 2
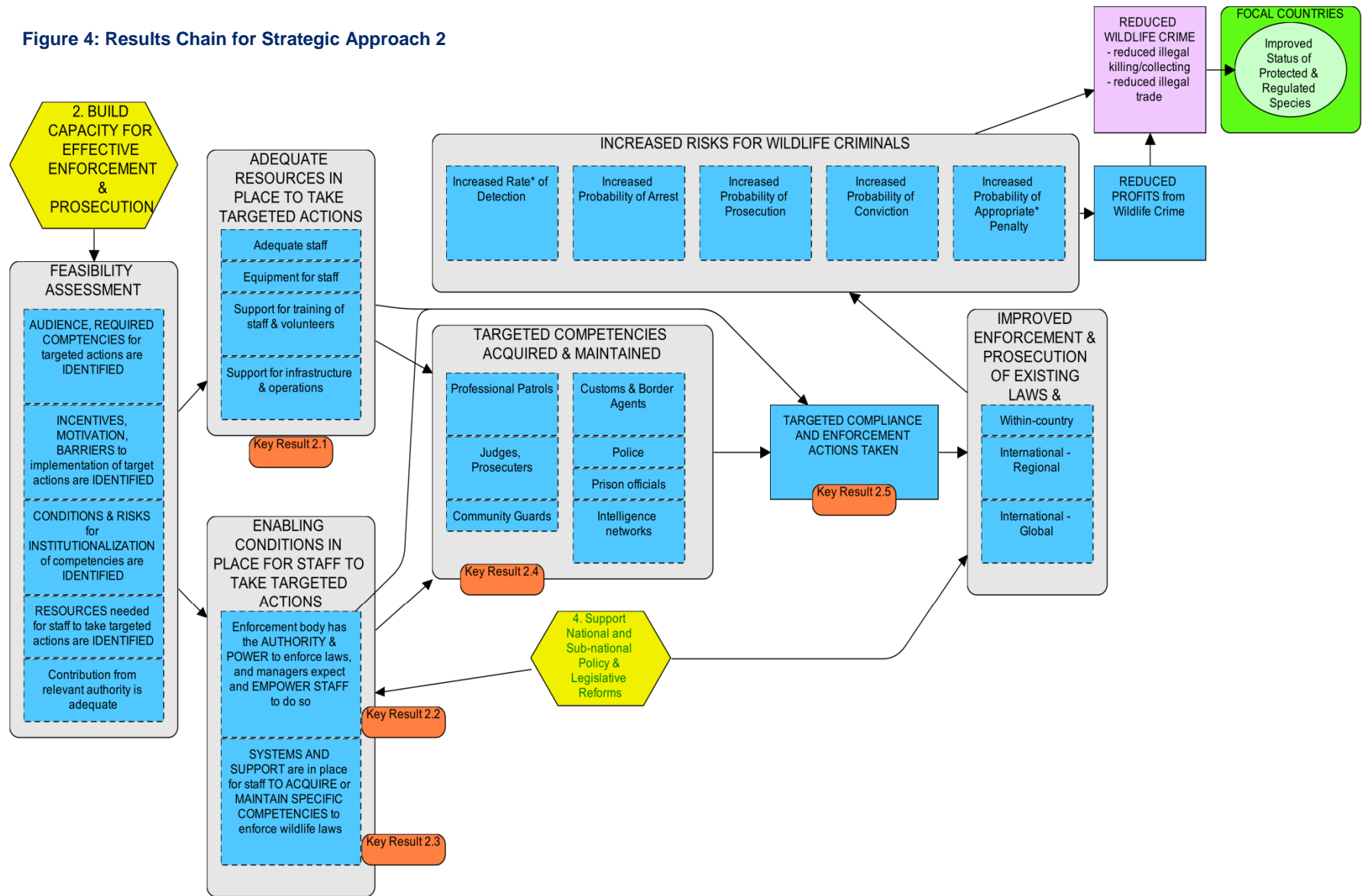
Definition:

Provision of financial or technical assistance to improve the capacity of governments and agencies to enforce wildlife laws and prosecute wildlife criminals

Examples:
- Provision of scanning equipment and sniffer dog training to customs officials to improve ability to detect and intercept illicit wildlife trade
- Training and awareness-raising of judges and prosecutors in existing laws, their intent, and avenues for application to wildlife crime
- Training of park, police, and fisheries agents to improve detection and monitoring of wildlife crime
- Efforts to support forensic data collection and analysis

Related to:
- US CWT Implementation Plan: Support Governments in Building Capacity
- US CWT Implementation Plan: Strengthen Interdiction and Investigative Efforts
- US CWT Implementation Plan: Take the Profit Out of Wildlife Trafficking
- CMP 4.1: Detection and Arrest (Detecting and/or directly stopping violations of existing laws, policies / regulations and standards / legal codes)
- CMP 4.2: Criminal Prosecution and Conviction (Ensuring sanctions for violations of existing laws, policies / regulations and standards / legal codes)
- CMP 7.4: Compliance and Enforcement Capacity Building (current definition not well defined)
- CMP 9.2 Training and Capacity Development
- USFWS 1: Set up and Manage Patrols
- USFWS 2: Training and Capacity Development
- USFWS 4: Wildlife Law and Compliance

Description:

This theory of change begins with a feasibility of assessment that identifies:

- The target audiences and required competencies for the targeted compliance and enforcement actions;
- The incentives, motivations, and barriers to implementation of target actions;
- The conditions and risks for institutionalization of competencies;
- The resources needed for staff to take targeted actions; and,
- The contributions from relevant authorities that are needed.

Following the needs assessment, actions are taken to address the identified gaps and issues. These actions should result in the provision of adequate resources (staff, equipment, financial support) to undertake targeted actions. These actions should also result in the provision of adequate institutional support for staff and creation of the conditions for institutionalization of competencies.

Through training, it is expected that the desired competencies are acquired and maintained by the targeted audiences. When combined with adequate resources and the fulfillment of the enabling conditions, it is expected that this will lead the targeted audiences to carry out the desired compliance and enforcement actions. This should improve the enforcement and prosecution of existing laws and agreements, which should increase the risks to wildlife criminals, reducing their profits and overall levels of wildlife crime, leading ultimately to improvements in status of protected and regulated species.

Key Result 2.1
Adequate resources in place to take targeted actions

Outcome Statement: By XX, enough staff are in place and have adequate equipment, training support, infrastructure and funding to undertake targeted actions at sufficient scale

Project-level Indicator: % and # of identified resource needs secured (disaggregated by type of resource).

For example, for anti-poaching, this could include:

- % of patrols adequately trained and equipped (USFWS 2014)
- % of patrols operating as scheduled (USFWS 2014)
- % of patrols adequately staffed
- Field based protection units, ranger stations and substations established and operational in protected areas and buffer zones (UNDP 2007)
- # of rangers in protected area (UNDP 2007)
- Networks of community based forest and wildlife crime monitors established and operational (UNDP 2007)

As another example, other measures of capacity to take action by law enforcement could include:

- % and # of people receiving training in natural resources management and/or biodiversity conservation (adapted from USAID 2015)
- Total case burden (number of criminal offences per authorized police strength; UNODC 2012)

Portfolio-level Indicator: % and # of targeted entities/agencies that have adequate resources for staff to take targeted actions (disaggregated by type of resource)

Key Result 2.2
Enabling Condition: Enforcement body has the authority and power to enforce laws, and managers expect and empower staff to do so

Outcome Statement: By XX, enforcement body managers encourage a majority of staff to take targeted actions.

Project-level Indicators:

a. Evidence that law enforcement officials are conducting enforcement duties without bias or constraint
   - # of enforcement actions involving political, economic, and institutional elites taken to trial (USAID Handbook of Democracy and Governance Indicators)
   - Presence of a functioning internal disciplinary/internal affairs office which monitors for violations in various key institutions (USAID Handbook of Democracy and Governance Indicators)
   - Presence of a whistle-blower protection policy for staff (USAID Handbook of Democracy and Governance Indicators)
b. Evidence that wildlife law enforcement actions are taken when appropriate
   - Information collected in support of enforcement is used to prioritize effort
   - Requests for wildlife enforcement assistance are heeded (e.g. tips from the individuals or CSOs)

Portfolio-level Indicator: % and # of entities/agencies that encourage a majority of staff to take targeted actions (disaggregated by type of support)

Key Result 2.3
Enabling Condition: Systems and support are in place for staff to acquire or maintain specific competencies to enforce wildlife laws

Outcome Statement: By XX, systems and support are in place for staff to acquire or maintain specific competencies to enforce wildlife laws.

Project-level Indicator: Evidence of working systems and adequate support for staff to acquire competencies to enforce wildlife laws.
Evidence could include:

- % and # of personnel in the identified audience receiving training in targeted competencies
- % of budget dedicated to training
- A continuing legal education requirement is incorporated into merit criteria (Y/N; USAID Handbook of Democracy and Governance Indicators)
- % of staff given formal annual performance reviews (USAID Handbook of Democracy and Governance Indicators)
- Existence of Standard Operating Procedures or guidelines on use of relevant enforcement techniques (Y/N; UNODC 2009)

Portfolio-level Indicator: % and # of entities/agencies that have working systems and adequate support for staff to acquire competencies to enforce wildlife laws

Key Result 2.4
Targeted competencies acquired and maintained

Outcome Statement: By XX, competencies are acquired and being maintained by the identified audience.

Project-level Indicators:

a. % and # of personnel in the identified audience receiving training in targeted competencies
b. % and # of personnel in the identified audience meeting competency level for their position (as defined by international standards if they exist)

Portfolio-level Indicator: % and # of entities/agencies in which at least X% of personnel in the identified audience meet the competency level for their position

Key Result 2.5
### Targeted compliance and enforcement actions taken

Outcome Statement: By XX, % and # of personnel in identified audience successfully carry out targeted compliance and enforcement to address appropriate problems.

Project-level Indicator: % and # of personnel in identified audience that successfully carry out targeted compliance and enforcement actions at a frequency appropriate to the practice (derived from USFWS 2014; disaggregated by step in the enforcement-prosecution chain)

Portfolio-level Indicator: % and # entities/agencies in which at least X% of personnel in the identified audience that successfully carry out targeted compliance and enforcement actions at a frequency appropriate to the practice (disaggregated by step in the enforcement-prosecution chain)

STRATEGIC APPROACH 3:
BUILD A CONSTITUENCY FOR EFFECTIVE, ACCOUNTABLE, AND TRANSPARENT GOVERNMENT ACTION

Figure 5: Results Chain for Strategic Approach 3
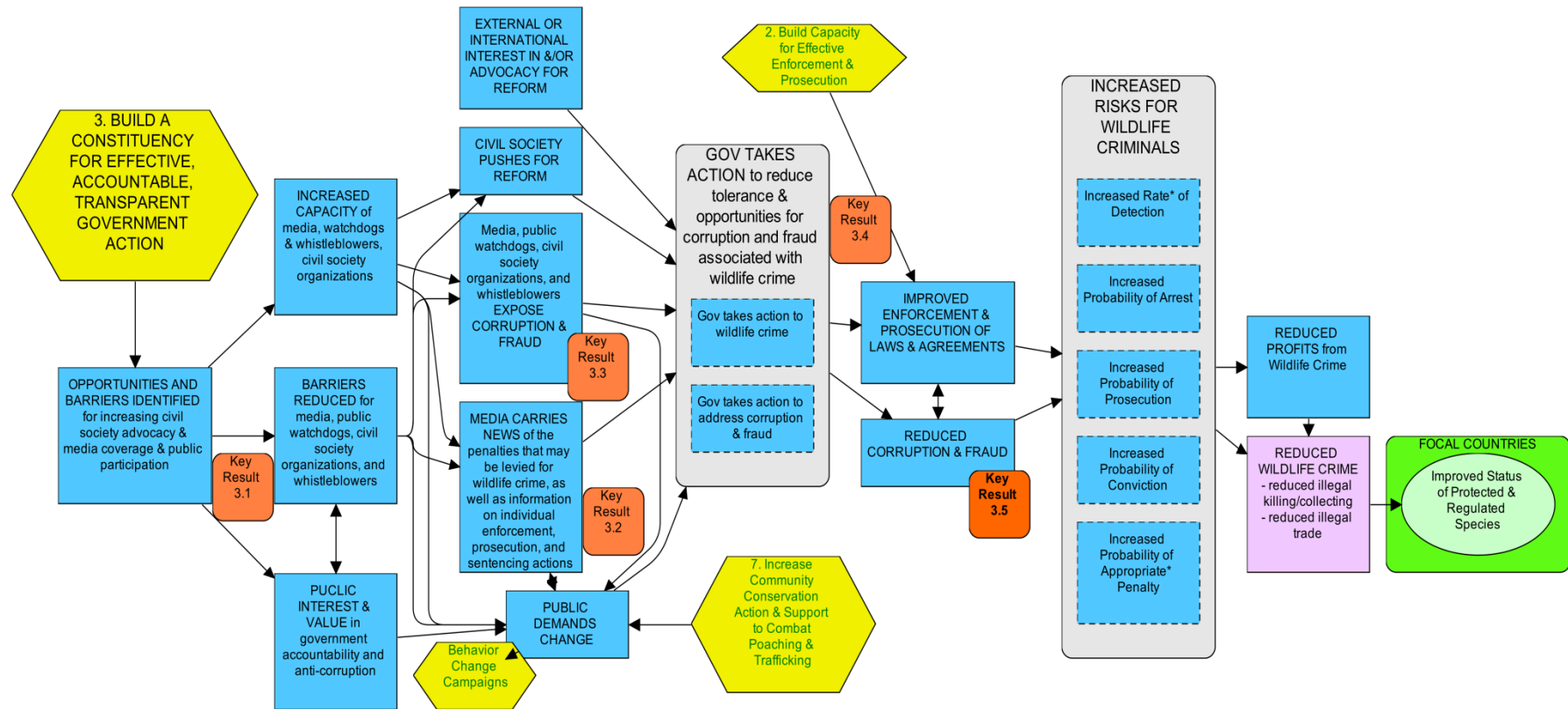
Definition:

Efforts to develop a robust and active civil society and media that can successfully advocate for improved transparency and accountability in how government responds to illegal activity, including wildlife crime and the corruption which frequently promotes or facilitates crime and prevents an effective response.

Examples:
- Capacity building of local watchdog organizations to investigate and expose wildlife crime and associated corruption
- Capacity building of local and national media to report on issues related to wildlife crime
- Advocacy to crack down on corrupt government personnel that ignore, assist, or benefit from wildlife crime
- Advocacy to develop a tip line

Related to:
- US CWT Implementation Plan: Focus on Corruption and Illicit Financial Flows
- US CWT Implementation Plan: Promote Effective Partnerships
- CMP 10.2: Institutional and Civil Society Development (Creating or providing non-financial support & capacity building for non-profits, government agencies, communities, and for-profits)
- USFWS 3: Partner Engagement (Engaging selected stakeholders, including government authorities, local communities, NGO representatives, and other partners to achieve shared objectives and broader coordination across overlapping areas)

Description:

This theory of change begins with the identification of opportunities and barriers for increasing civil society advocacy, media coverage, and public participation in governance. Next, activities are carried out that are expected to lead to (1) an increased capacity of media, watchdog organizations, and civil society organizations; (2) reduced barriers for the media and civil society organizations; and (3) an increase in the public's interest and value for government accountability and anti-corruption actions. Following these results, it is expected that civil society will push for reform; the media, public watchdogs, whistleblowers, and civil society organizations will expose corruption and fraud. Additionally, the media will carry news of wildlife crime and arrests, and the public will demand change. These results, possibly also in combination with external or international interest or advocacy, should lead the government to take action to address wildlife crime, corruption, and fraud.

These actions should lead to improved enforcement and prosecution of existing laws and agreements, and reduced corruption and fraud (with each of this results feeding back on each other). These results should increase the risks to wildlife criminals, reducing their rewards and reduced wildlife crime leading to improvements in the status of protected and regulated species.

Other strategic approaches may be needed to achieve the results in the theory of change. For the public to demand change, behavior change campaigns or a strategic approach to increase community conservation action and support to combat poaching and trafficking might be required. Additionally, this strategic approach may not be sufficient to result in improved enforcement and prosecution of laws and agreements and another strategic approach that builds the capacity for effective enforcement and prosecution might be needed.

NOTE: These key results are particularly difficult to measure, but USAID has developed some tools to do so including:

- A Practical Guide: Measuring Corruption and the Impact of Anti-Corruption Interventions: http://pdf.usaid.gov/pdf_docs/PA00K1R3.pdf
- Tools for Assessing Corruption and Integrity in Institutions: http://pdf.usaid.gov/pdf_docs/Pnadf529.pdf
- Practitioner's Guide to Anticorruption Programming: http://pdf.usaid.gov/pdf_docs/PA00K7PG.pdf

Additionally, a few outside resources on this topic might be useful- see Heywood, Rose 2014 and Anderssen et al 2007.

Key Result 3.1
Barriers reduced for media, public watchdogs, civil society organizations and whistleblowers.

Outcome Statement: By XX, target barriers for media, public watchdogs, civil society organizations and whistleblowers are reduced.

Project-level Indicator: Evidence of reduced barriers (may include increased press freedom or information access, whistleblower protections, press conferences and opportunities for public participation; may include fewer journalists and activists being detained, jailed, publicly criticized or threatened)

Portfolio-level Indicator: % projects that achieved their barrier removal milestones.

Key Result 3.2
Media carries news of the penalties that may be levied for wildlife crime, as well as information on individual enforcement, prosecution, and sentencing actions

Outcome Statement: By XX, at least X% of wildlife crime arrests, court proceedings, and sentences are carried in targeted media sources. (derived from USFWS 2014)

Project-level Indicator: % (or # if baseline not known) of wildlife crime arrests, court proceedings, and sentences that are carried in targeted media sources (derived from USFWS 2014)

Portfolio-level Indicator: % and # of projects that have met their objectives for media coverage (derived from USFWS 2014)

Key Result 3.3
Media, public watchdogs, civil society organizations and whistleblowers expose corruption and fraud

Outcome Statement: By XX, corruption and fraud associated with wildlife crime is usually exposed by media, public watchdogs, whistleblowers, and civil society organizations.

Project-level Indicator: # cases of corruption and fraud exposed by media, public watchdogs, civil society organizations and whistleblowers

Portfolio-level Indicators: % and # of projects that show any cases of corruption and fraud exposed by media, public watchdogs, civil society organizations and whistleblowers

Key Result 3.4
Government takes action to reduce tolerance and opportunities for corruption and fraud associated with wildlife crime

Outcome Statement: By XX, there is evidence that government is taking increasing action to address corruption and fraud associated with wildlife crime

Project-level Indicator:

a. # of government-agency actions taken to decrease opportunities for corruption

    Examples might include:

    o   changed procedures
    o   internal and external audits take place in accordance with required schedules
    o   code of conduct put in place

b. % and # of targeted actions taken to decrease opportunities for corruption

Portfolio-level Indicator: % and # projects that show evidence of government action to reduce corruption and fraud associated with wildlife crime

Key Result 3.5
## Reduced corruption and fraud

Outcome Statement: Within XX months of initiative launch, the public believes that fraud and corruption related to wildlife crime is reduced

Project-level Indicator: % of surveyed public perceiving official fraud and corruption by government, related to wildlife crime.

Portfolio-level Indicator: % and # of projects achieving their fraud and corruption reduction targets, related to wildlife crime.

STRATEGIC APPROACH 4:
SUPPORT NATIONAL AND SUB-NATIONAL POLICY AND LEGISLATIVE REFORMS

Figure 6: Results Chain for Strategic Approach 4
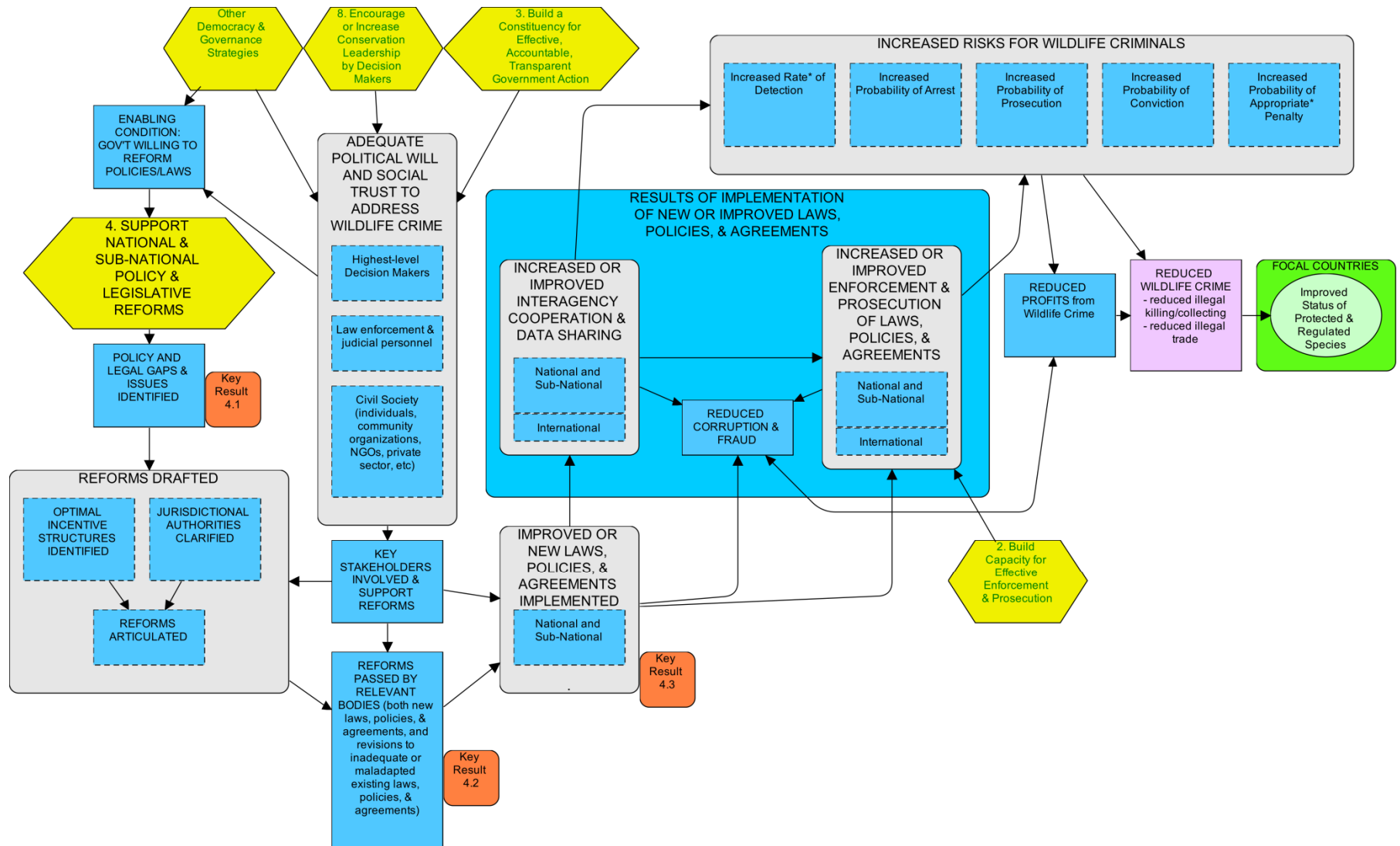
Definition:

Support the development, modification, and implementation of national and sub-national laws and policies related to wildlife crime in order to directly reduce threats or support other strategic approaches.

Examples:

- Support to identify policy gaps and draft legislative reforms related to wildlife crime

Related to:

- CMP 7.1 Legislation
- CMP 7.2 Policies and Regulations

Description:

Key enabling conditions for this intervention are: (1) that the government is willing to reform policies or laws and (2) there is adequate political will and social trust to address wildlife crime by key stakeholders (decision makers, law enforcement and judicial personnel, civil society). Other democracy and governance strategies might lead to these results.

After enabling conditions are in place, the first expected results are the identification of policy and legal gaps and issues and the involvement and support of key stakeholders in the reform process. Once accomplished, reforms will be drafted that identify optimal incentive structures and clarify jurisdictional authorities. With the continued support of key stakeholders, these reforms should be passed by relevant bodies and then implemented. Once implemented, law and policy reforms should lead to increased or improved enforcement and prosecution of existing laws and agreements, improved interagency cooperation and coordination, and/or reduced corruption and fraud – the specific expected results being dependent on the scope of the implemented reform. With the results achieved through the implemented reforms, the risk of negative consequences for wildlife criminals should increase, reducing rewards for wildlife crime and overall levels of wildlife crime. As a result of reduced levels of wildlife crime, improvements in the status of protected and regulated species should ultimately follow.

It should be noted that other strategies may also be needed to develop and maintain the political will and social trust needed to support the outcomes in this theory of change, such as efforts to build a constituency for effective, accountable, transparent government action; or efforts to encourage or increase conservation leadership of decision makers.

Key Result 4.1
Policy and legal gaps and issues identified

Outcome Statement: By XX, policy and legal gaps and issues are identified.

Project-level Indicator: % and # of needed analyses that identify policy and legal gaps completed

Portfolio-level Indicator: % and # of projects that have completed analyses of policy and legal gaps

Key Result 4.2
Reforms passed by relevant bodies

Outcome Statement: Within XX months of initiative launch, needed reforms passed by relevant bodies

Project-level Indicator: # reforms passed that address policy and legal gaps and issues (disaggregated by jurisdictional level)

Portfolio-level Indicator: %/# of projects where any drafted reforms are passed

Key Result 4.3
Improved or new laws, policies, and agreements implemented

Outcome Statement: By XX, improved or new laws, policies, and agreements are implemented.

Project-level Indicators: Evidence that government entities involved with implementing improved or new laws, policies, and agreements are fulfilling their responsibilities (derived from UNODC 2009)

Evidence might include:

- # of investigations and prosecutions carried out under new laws (adapted from UNODC 2009)
- Establishment of information centers on new laws, policies, agreements (USAID 2015)
- # of trainings in place to implement new laws, policies, and agreements/# of people trained to implement new laws, policies, and agreements
- Coordination mechanism is functioning effectively (Y/N)

Portfolio-level Indicator: % and # of projects showing evidence that improved or new laws, policies, and agreements are being implemented (disaggregated by project-level indicator

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STRATEGIC APPROACH 5:
DEVELOP & IMPROVE USE OF TRACEABILITY SYSTEMS FOR LEGAL PRODUCTS

Figure 7:
Results Chain for
Strategic Approach 5
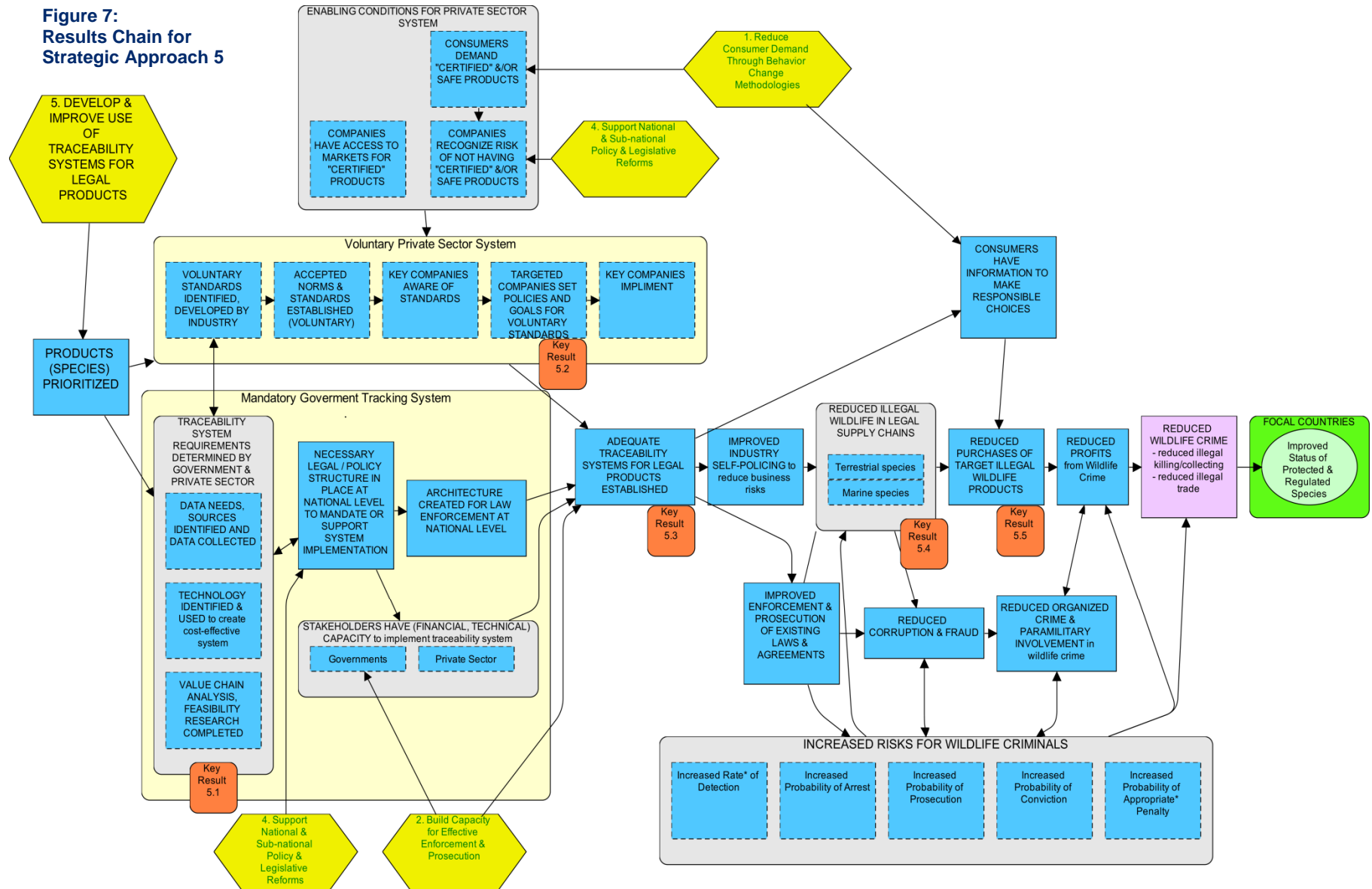
Definition:
Development of systems to track and trace wildlife products as they move through the supply chain with the goal of reducing fraud and comingling of legal and illegal products.

Examples:
- Market-based certification systems for sustainable products (MSC, FSC, Rainforest Alliance)
- Development of a government-mandated marking and traceability system for legal wildlife products
- Development of a DNA traceability system to secure controlled supply channels, prevent the comingling of illegal or unverified products, and assist with investigation of wildlife crimes
- Support for Implementation of Port State Measures Agreement to track and block trading activity by known illegal vessels

Related to:
- US CWT Implementation Plan: Focus on Corruption and Illicit Financial Flows
- US CWT Implementation Plan: Take the Profit Out of Wildlife Trafficking
- US CWT Implementation Plan: Promote Effective Partnerships

Description:
This theory of change is focused on developing and improving traceability systems for prioritized legal products (species), including voluntary private-sector systems and mandatory government tracking systems. For both systems, the first result will be that the wildlife products (species) targeted by traceability systems are prioritized.

For the voluntary private-sector system, once the enabling conditions are in place, voluntary standards are identified and accepted by industry in partnership with government and civil society stakeholders. This should lead key companies to set policies and implement the voluntary standards. The enabling conditions for the private-sector system are (1) strong consumer demand for "certified" and/or safe products, which should lead to companies recognizing a risk for not having "certified" or safe products and (2) for companies to have access to markets for certified products.

For the mandatory government tracking system, the first expected result is the development of the traceability system in collaboration with the private sector. This will include identification of data needs and sources and initial data, the completion of a value chain analysis, and the strategic use of technology to ensure cost-effectiveness. This should lead to the legal and policy structures needed to mandate or support the implementation of the systems being put in place and then the development of the requisite national-level law-enforcement architecture. Having the legal and policy structures in place to mandate or support implementation of the traceability systems should also contribute to acquisition of the capacities needed for implementation.

Once adequate traceability systems for legal products are established by the private sector and the government, data and information will be produced that will assist industry in self-policing, improve enforcement and prosecution of existing laws and agreements related to wildlife crime, and give consumers information to make responsible choices. Improved enforcement and prosecution will increase risks for wildlife criminals and, with improved self-policing by industry, reduce the amount of illegal wildlife products in legal supply chains. This should reduce purchases of illegal wildlife products and thus reduce the rewards for wildlife crime. Reduced illegal wildlife in the legal supply chain will reduce purchases directly but also when consumers have the information they need to make responsible choices, they should reduce their purchases

of illegal wildlife products. Reduced purchases of illegal wildlife products will reduce the profits from participation in wildlife crime and reduce wildlife crime, leading to improvements in the status of protected and regulated species.

Reductions in the amount of illegal wildlife in the legal supply chain, along with improved enforcement and prosecution, will also reduce opportunities for corruption, fraud, and for the involvement of organized crime and paramilitaries, all of which will also lead to reduced profits from wildlife crime. Reduced profits from wildlife crime should lead to reduced levels of wildlife crime and ultimately to improvements in the status of protected and regulated species.

Other interventions may be needed to support the results defined in this theory of change. These might include strategies to:

- Reduce consumer demand though behavior change methodologies in order to support consumer demand for certified and/ or safe products;
- Support for national enforcement agencies and legislation in order get companies to recognize a risk for not having "certified" and/ or safe products and to put in place necessary legal and policy structures for implementation of the traceability system; and,
- Build capacity for effective enforcement and prosecution to ensure that stakeholders have the capacity to implement traceability systems.

Key Result 5.1
Traceability system requirements determined by government and private sector

Outcome Statement: By XX, evidence is observed that system requirements were determined collaboratively

Project-level Indicator: Evidence that system requirements were determined collaboratively

Evidence might include:

- o # of partnerships (including MOUs) established between government and private sector to co-design a traceability system
- o # of collaborative processes (e.g. working groups, workshops, etc.) between government and private sector to generate input into a traceability system.
- o Data needed for design of traceability system, based on completed data-needs assessment, have been collected [Y/N]
- o Value chain analysis completed [Y/N]
- o Feasibility study completed [Y/N]

Portfolio-level Indicator: % and # of projects with traceability system requirements determined (could be disaggregated by project-level indicators)

Key Result 5.2
Targeted companies set policies and goals for voluntary standards

Outcome Statement: By XX, % of targeted companies have set policies and goals for voluntary standards.

Project-level Indicator: % of targeted companies have set policies and goals for voluntary standards

Portfolio-level Indicator: % and # of projects that met objectives for targeted companies setting policies and goals for voluntary standards (or, in which any companies set policies/goals in a given year).

Key Result 5.3
Adequate traceability systems for legal products established

Outcome Statement: By XX, an adequate traceability system for legal products is established.

Project-level Indicators: Evidence is observed that an adequate traceability system is established

Evidence might include:

- o System in place for labelling exports of targeted products [Y/N]
- o System in place for recording and reporting imports of targeted products [Y/N]
- o # of auditors employed to verify traceability system
- o # of inspections of traceability systems completed
- o # of inspectors employed to verify traceability system

Portfolio-level Indicators: # of importing and exporting countries with system in place for labelling exports of targeted products (USAID 2015)

Key Result 5.4
Reduced illegal wildlife in legal supply chains

Outcome Statement: By XX, % of illegal targeted products in the legal supply chain is reduced.

Project-level Indicator:

- a. % of total products in trade (e.g. markets, ports) that are illegal
- b. % of relevant retailers/restaurants selling illegal products as legal (adapted from CI 2002)

Portfolio-level Indicator: % of projects showing reduced % of illegal targeted products in legal markets

Key Result 5.5
### Reduced purchases of target illegal wildlife products
Outcome Statement: By XX, the number of target wildlife products purchased is reduced by X% points.

Project-level Indicator: # of illegal wildlife products purchased (adapted from DEFRA 2014)

Portfolio-level Indicator: % and # of projects that show reductions in purchases of target illegal wildlife products

STRATEGIC APPROACH 6:
STRENGTHEN INTERNATIONAL & INTERAGENCY COORDINATION & COOPERATION IN DATA SHARING & ENFORCEMENT

Figure 8: Results Chain for Strategic Approach 6
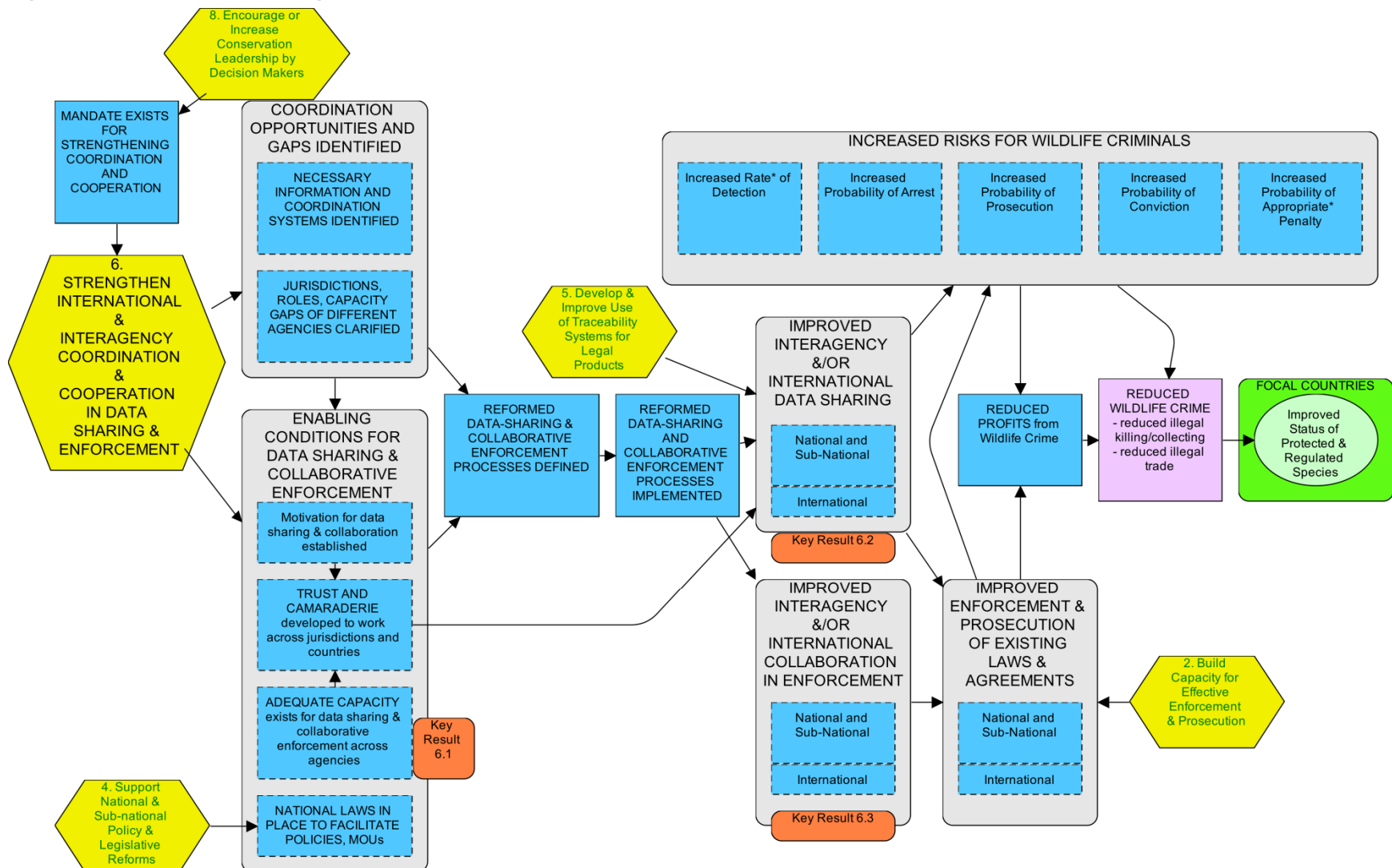
Definition:
Support for national and international systems and processes to improve coordination and cooperation among agencies to combat wildlife crime.

Examples:
- Efforts to develop and support centralized information systems for the sharing of data and information related to crime (including wildlife crime)
- Efforts to improve communication, coordination, and cooperation among multiple agencies within a country or across countries
- Efforts to support regional wildlife enforcement networks

Related to:
- CMP 10.3 Alliances and Partnership Development (Forming and facilitating partnerships, alliances, and networks of organizations)
- CMP 4.1 Detection and Arrest

Description:
A prerequisite condition for this theory of change is a mandate for strengthening coordination and cooperation. The first expected results for this strategic approach are: (1) the identification of coordination opportunities and gaps (including information and coordination systems as well as jurisdictions, roles, and capacity gaps of different agencies); and, (2) the establishment of the enabling conditions for data sharing and collaborative enforcement. These enabling conditions include:

- Motivation to share data and collaborate;
- Trust and camaraderie to work across jurisdictions and countries;
- Adequate capacity for data sharing and collaboration across agencies; and,

- National laws to facilitate policies and agreements.

Following these results, reformed data-sharing and collaborative enforcement processes will be defined and then implemented. Implementation of reformed data-sharing processes should improve interagency data-sharing, as well as international and interagency collaboration in enforcement. These results should lead to improved enforcement and prosecution of existing laws and agreements. As a result of improved enforcement and prosecution, the risks of negative consequences for wildlife criminals are expected to increase, which should reduce their profits from participation in wildlife crime. Reduced profits for wildlife crime should lead to reduced levels of wildlife crime and ultimately to improvements in the status of protected and regulated species.

Additionally, trust and camaraderie across agencies can lead directly to informal data sharing that can then lead to improved enforcement and prosecution. Because of this, reformed data sharing processes are not always required to achieve this result.

Other strategic approaches may be needed to support the results defined in this theory of change. These might include strategies to:

- Encourage or increase conservation leadership of decision makers;
- Support national and sub-national policy and legislative reform in order to get necessary national laws in place to facilitate information sharing policies and agreements;
- Develop and improve the use of traceability systems for legal products in order to support improved interagency information sharing; and,
- Build capacity for effective enforcement and prosecution in order to enable improved enforcement and prosecution of existing laws and agreements.

Key Result 6.1
Enabling Condition: Adequate capacity exists for data sharing and collaborative enforcement across agencies

Outcome Statement: By XX, adequate capacity (budget & needed competencies) exists for data sharing and collaborative enforcement across specified agencies.

Project-level Indicators:

a. % and # of specified agencies with staff time and budget dedicated to international and/or interagency data sharing and collaborative enforcement

    o Focal point for cooperation with international and regional police cooperation organizations in place (UNODC, 2009).

    o Designated central authority competent to receive and execute requests or transmit them for execution (UNOCD, 2009).

b. % and # of specified agencies for which at least X% of personnel meet the competency level for their position for data sharing and collaborative enforcement practices

Portfolio-level Indicators:

a. % and # of specified agencies with staff time and budget dedicated to international and/or interagency data sharing and collaborative enforcement (disaggregated by project/mechanism)

b. % and # of projects meeting their objectives for personnel competency in data sharing and collaborative enforcement practices

Key Result 6.2:
Improved interagency and/or international data sharing

Outcome Statement: By XX, international and/or interagency data sharing is occurring as intended.

Project-level Indicator: Evidence that Interagency data sharing is occurring as intended [Y/N] (disaggregated by national or international)

Evidence could include:

- Based on # examples of data sharing, evidence that quality of data sharing is improved, or # of agencies/countries using data of focus agency country
- Agreements on data sharing in place
- Standardized format for data collection agreed upon and procedures in place
- Clear procedures for data sharing established, and point persons designated and functioning
- Common strategies and work plans for data sharing in place
- Existence and use of clear and functioning guidelines/procedures for handling requests (UNODC 2009).

Portfolio-level Indicator: % and # of projects where interagency data sharing is occurring as intended

Key Result 6.3:
Improved interagency and/or international collaboration in enforcement

Outcome Statement: By XX, international and/or interagency collaboration in enforcement is occurring as intended through reformed processes.

Project-level Indicator: Evidence that interagency collaboration in enforcement is occurring as intended

Evidence could include:

- # of documented collaboration events (disaggregated by type of event, such as coordination meeting, planning exercise, evidence sharing event, or joint operation)
- Evidence of increased communication between law enforcement agencies in different jurisdictions or countries related to wildlife crime (evidence could include police records, telephone records, interviews, or surveys).
- # of requests made and executed, between agencies or countries, to identify, trace, and freeze or seize proceeds of crime, properties, or other instrumentalities for purposes of eventual confiscation
- # of international and regional investigations shared among law enforcement authorities (adapted from USAID 2015)

Portfolio-level Indicator: % and # of projects where international and interagency collaboration in enforcement is occurring as intended

STRATEGIC APPROACH 7:
INCREASE COMMUNITY CONSERVATION ACTION AND SUPPORT TO COMBAT POACHING & TRAFFICKING

Figure 9: Results Chain for Strategic Approach 7
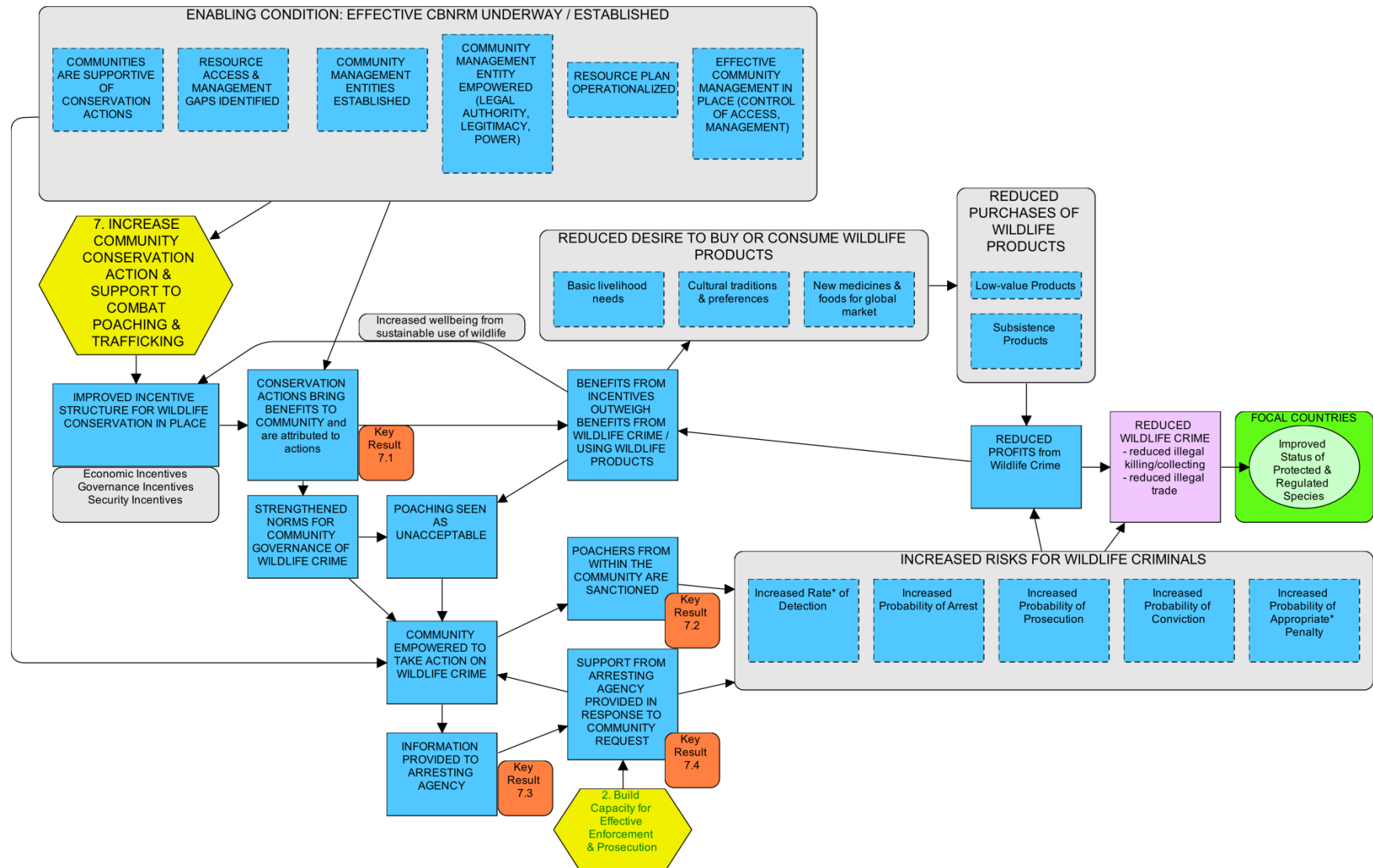
Definition:
Efforts to build community support and action to decrease poaching and illegal activity.

Examples:
- Development and support of community-based natural resource management entities to decrease poaching and illegal actions in order to improve and sustain benefits from wildlife conservation
- Development and improvement of sustainable livelihoods that provide incentives to eliminate illegal use of wildlife resources

Related to:
- US CWT Implementation Plan: Support Community-Based Wildlife Conservation
- US CWT Implementation Plan: Promote Effective Partnerships
- CMP 5.1 Linked Enterprises and Livelihoods (Developing enterprises that directly depend on the maintenance of natural resources or provide substitute livelihoods as a means of changing behaviors and attitude)
- CMP 5.2 Substitution and Alternative livelihoods (Promoting alternative products and services that substitute for environmentally damaging ones)

Description:
This theory of change assumes that effective community-based natural resource management is already underway or established and that management systems are in place, including local control of access to resources.[8] This strategy then aims to improve incentive structures for wildlife conservation. Incentives could be related to governance, security, or personal income.

Incentives should lead to community benefits that are attributed to conservation actions. When these benefits outweigh those derived from wildlife crime or the use of wildlife products, then community members will reduce their desire to purchase or consume wildlife products and should then reduce purchases (demand) for those products. Reduced purchases should lead to reduced profits for wildlife crime and reduced levels of wildlife crime, which should result in improvements in the status of protected and regulated species.

In addition, if community members receive benefits that are attributed to conservation actions, then norms for community governance, including efforts to fight wildlife crime, should be strengthened. This will lead to poaching being seen as unacceptable, which, when combined with effective CBNRM, should lead communities to be empowered to take action on wildlife crime. When communities are empowered, they will sanction poachers from within their community, resulting in increased risks for poachers. Community empowerment should also lead the community to provide information to arresting agencies about poachers from outside the community. If the community provides information to arresting agencies, the arresting agencies should respond adequately, leading to increased risks for poachers from outside the community, reduced profits from participation in wildlife crime, and thus reducing wildlife crime, leading to improvements in the status of protected and regulated species.

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[8] It is recommended that standard Agency indicators be used to measure progress on these enabling conditions (e.g., # of ha under improved management).

Furthermore, adequate support from arresting agencies (when the community provides information about outside poachers) should reinforce and enhance community empowerment to provide further information about poaching to arresting agencies. Conversely, if adequate support is not forthcoming from arresting agencies when the community provides information, community empowerment will be undermined, resulting in less information provided to arresting agencies and a diminished perception within the community of poaching as an unacceptable activity and reduced sanctions to poachers within the community. For adequate support to be provided, it may be necessary to build the capacity for effective enforcement (Strategic Approach 2).

Key Result 7.1
Conservation actions bring benefits to community (and benefits are attributed to those actions)

Outcome statement: By XX date, X% of the community in target area will receive benefits that they attribute to actions to protect wildlife.

Project level indicators:

a. % and # of the community in target area who perceive a benefit (economic, security, governance) from actions to protect wildlife
b. Total and % increase in household income levels

Portfolio level indicators: % and # of initiatives that demonstrate community benefits from conservation actions

Key Result 7.2
Poachers from within the community are sanctioned

Outcome Statement: By XX, there is evidence that poachers from within the community are sanctioned by the community.

Project-level Indicator: % and # of locally-committed wildlife crimes leading to sanction of perpetrator by community.

Portfolio-level Indicator: % or projects that show evidence that poachers from within the community are sanctioned

Key Result 7.3
Information provided to arresting agency

Outcome Statement: By XX, community reporting of wildlife crime is increased by X%.

Project-level Indicator: % and # of crimes reported by communities that are accompanied by adequate reports and evidence (disaggregated by internal or external poachers)

Portfolio-level Indicator: % projects that show evidence that community reporting of wildlife crime is increased (disaggregated by internal or external poachers)

Key Result 7.4
Support from arresting agency provided in response to community request

Outcome Statement: By XX, there is evidence that arresting support is being provided in response to community requests.

Project-level Indicator: % of community requests for arresting support carried out by appropriate arresting agencies

Portfolio-level Indicator: % projects in which arresting support from relevant agencies is being provided.

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STRATEGIC APPROACH 8:
ENCOURAGE OR INCREASE CONSERVATION LEADERSHIP BY DECISION MAKERS

Figure 10: Results Chain for Strategic Approach 8
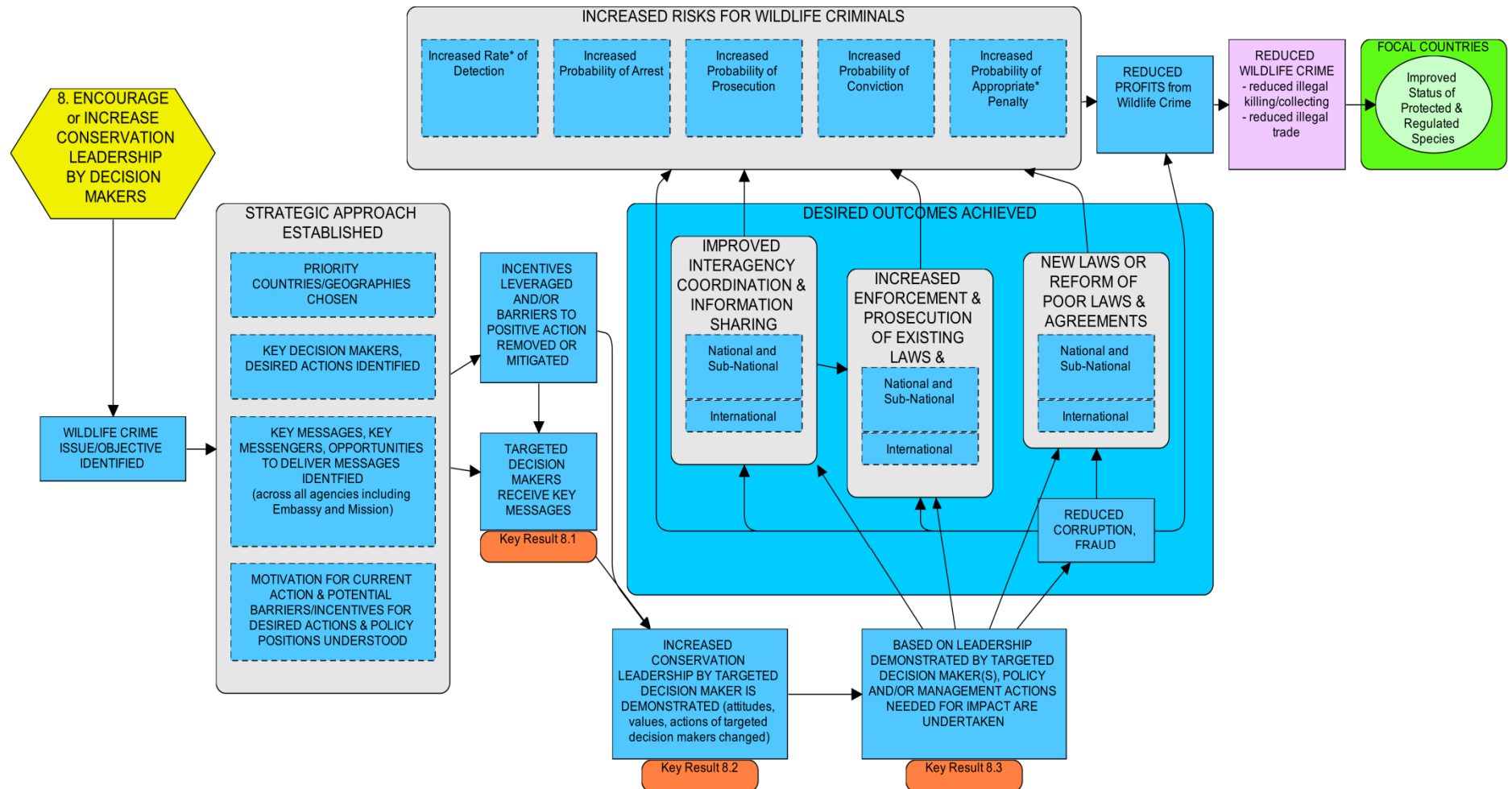
Definition:

The use of diplomatic tools such as high-level discussions, trade agreements and sanctions, multilateral forums to influence the knowledge, attitudes, and actions of high-level decision makers in the target country.

Examples:

- Inclusion of wildlife crime in high-level diplomatic discussions between the government implementing the strategic approach and target countries
- Use or threat of trade sanctions for actions (or lack of action) on wildlife crime
- Use of international fora such as CITES to request information or actions from members
- Provision of technical or financial assistance conditional on host-country actions related to wildlife crime

Related to:

- CMP 3.1: Outreach and Communication (Promoting desired behavioral change by providing information through various media and other channels)

Description:

This theory of change begins with the identification of a wildlife crime issue and objective. This result allows for the establishment of a strategic approach that includes:

- Decisions on priority countries or geographies;
- Identification of key decision makers;
- Identification of key messages, key messengers, opportunities to deliver messages (across all agencies of the implementing government including embassies and foreign assistance units); and,
- An understanding of motivation for current action and potential barriers or incentives for desired actions and policy positions.

Once a strategic approach is established, incentives can be leveraged and/or barriers to positive action can be removed or mitigated. Additionally, actions can be taken that will result in targeted decision makers receiving key messages and knowledge.

These results should lead to increased conservation leadership demonstrated by targeted decision makers. This should lead to desired policy and/or management actions that are needed for impact being undertaken.

If these actions are taken, then the desired outcomes should be achieved (related to interagency coordination and data sharing, increased enforcement and prosecution of existing laws, or, new laws or reform of poor laws and agreements). These outcomes should lead to increased risks to wildlife criminals, reducing their profits and overall levels of wildlife crime, ultimately leading to improvements in the status of protected and regulated species.

Key Result 8.1
Targeted decision makers receive key messages

Outcome Statement: By XX, X% of targeted decision makers receive key messages about actions or policy positions needed

Project-level Indicator: % of targeted decision makers who receive key messages about actions or policy positions needed

Portfolio-level Indicator: % projects that meet objectives for reaching targeted decision makers

Key Result 8.2
Increased conservation leadership by targeted decision makers is demonstrated

Outcome Statement: By XX, some desired actions and policy positions are demonstrated by X% of targeted decision makers.

Project-level Indicators:

a. % of targeted decision makers who demonstrate desired actions and policy positions
b. # of desired actions and policy positions demonstrated by any number of targeted decision makers

Portfolio-level Indicator: % and # of projects which meet objectives for conservation leadership by targeted decision makers

Key Result 8.3
Based on leadership demonstrated by targeted decision-maker(s), policy and/or management actions needed for impact are undertaken

Outcome Statement: By XX, there is evidence that actions and policy positions demonstrated by targeted decision makers result in actions needed for impact being undertaken by others.

Project-level Indicator: # desired policies, laws, agreements, agency procedures, and/or management actions that have been developed, improved, adopted, and/or implemented in accordance with the actions and policy positions of targeted decision makers (disaggregated by type)

Portfolio-level Indicators:

a. # desired policies, laws, agreements, agency procedures that have been developed, improved, adopted, and/or implemented in accordance with the actions and policy positions of targeted decision makers.

b. % and # of projects that show evidence that actions and policy positions demonstrated by targeted decision makers result in actions needed for impact being undertaken by any stakeholder.

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STRATEGIC APPROACH 9:
IMPROVE CONSERVATION APPROACHES THROUGH BETTER INFORMATION ON WILDLIFE AND WILDLIFE CRIME STATUS AND TRENDS

Figure 11: Results Chain for Strategic Approach 9
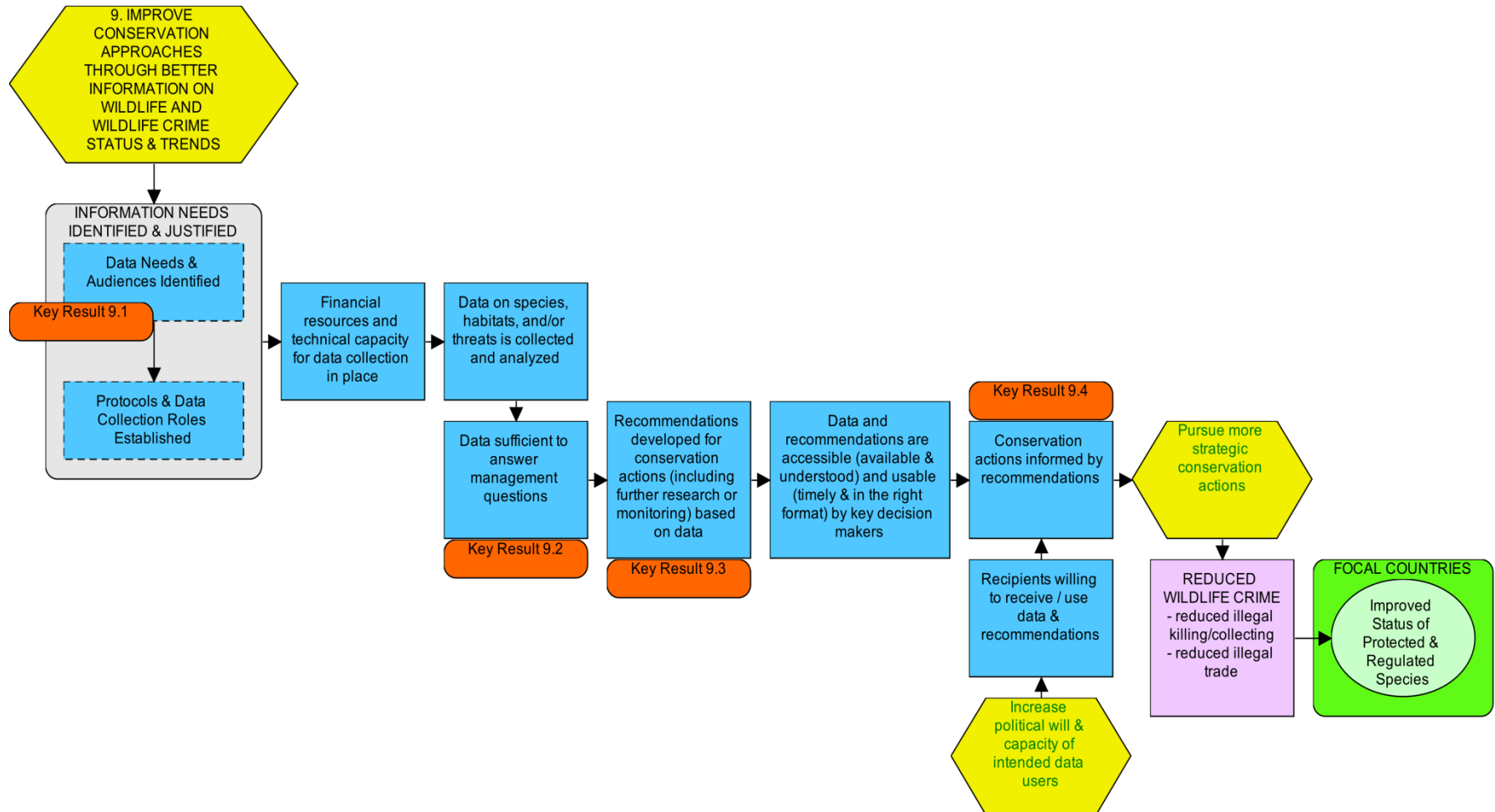
Definition:
Efforts to track and understand the status and trends of threats and the status of conservation targets in order to adapt and improve conservation interventions.

Examples:
- National-level geospatial databases are created to track species distributions, key threats, and poaching incidence
- Efforts to monitor target wildlife populations over time
- Efforts to monitor the scale and scope of threats to wildlife within a country or region

Related to:
- CMP 8.1 Basic Research and Monitoring Status
- CMP 8.2 Effectiveness Monitoring / Adaptive Management
- USFWS 7: Applied Conservation Research

Description:
This theory of change begins with the identification and justification of information needs. Data needs and relevant audiences are first identified, and protocols for data collection are established. Financial resources are then put in place and technical capacity for management is developed. This should lead to data on species, habitats, and/or threats being collected and analyzed with an eye towards management questions. Over time, this should lead to the production of data sufficient to answer management questions. Recommendations for conservation actions are then developed based on data. Data is subsequently made available to decision makers in a form that is easily understood and usable (timely and in the right format). When combined with a willingness to receive and use data and recommendations by recipients, this should lead to conservation decisions that are informed by recommendations that arise from the data. Decisions based on improved data are more strategic and effective and ultimately reduce wildlife crime and improve the status of focal species.

Key Result 9.1
Data needs and audiences identified

Outcome Statement: By XX, data needed and audiences for information to guide conservation action decisions are identified.

Project-level Indicator: Data needed and audiences for information to guide conservation action decisions are identified [Y/N]

Portfolio-level Indicator: % projects that have identified the data needed and audiences for information to guide conservation action decisions

Key Result 9.2
Data sufficient to answer management questions

Outcome Statement: By XX, and then ongoing, data is sufficient to answer management decision making

Project-level Indicator: Sufficiency of data for management decisions (determined through analysis of quality and utility of data for users)

Portfolio-level Indicator: % and # of projects that generate data sufficient for management decision making

Key Result 9.3
Recommendations developed for conservation actions (including further research or monitoring) based on data

Outcome Statement: By XX, data-driven recommendations to improve current or future conservation action are developed.

Project-level Indicator: Data-based recommendations developed to improve current or future conservation action [Y/N]

Portfolio-level Indicator: % projects that have developed data-based recommendations to improve current or future conservation action

Key Result 9.4
Conservation actions informed by recommendations

Outcome Statement: By XX, conservation actions are undertaken based on data-driven recommendations.

Project-level Indicator: # new or improved conservation actions implemented that have been informed by data-based recommendations

Portfolio-level Indicator: % of projects in which new or improved conservation actions have been implemented as informed by data-based recommendations (disaggregated by category of strategic approach)

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STRATEGIC APPROACH 10:
EXPAND AND REFORM INTERNATIONAL LAWS, POLICIES, AND AGREEMENTS ADDRESSING WILDLIFE CRIME

Figure 12: Results Chain for Strategic Approach 10
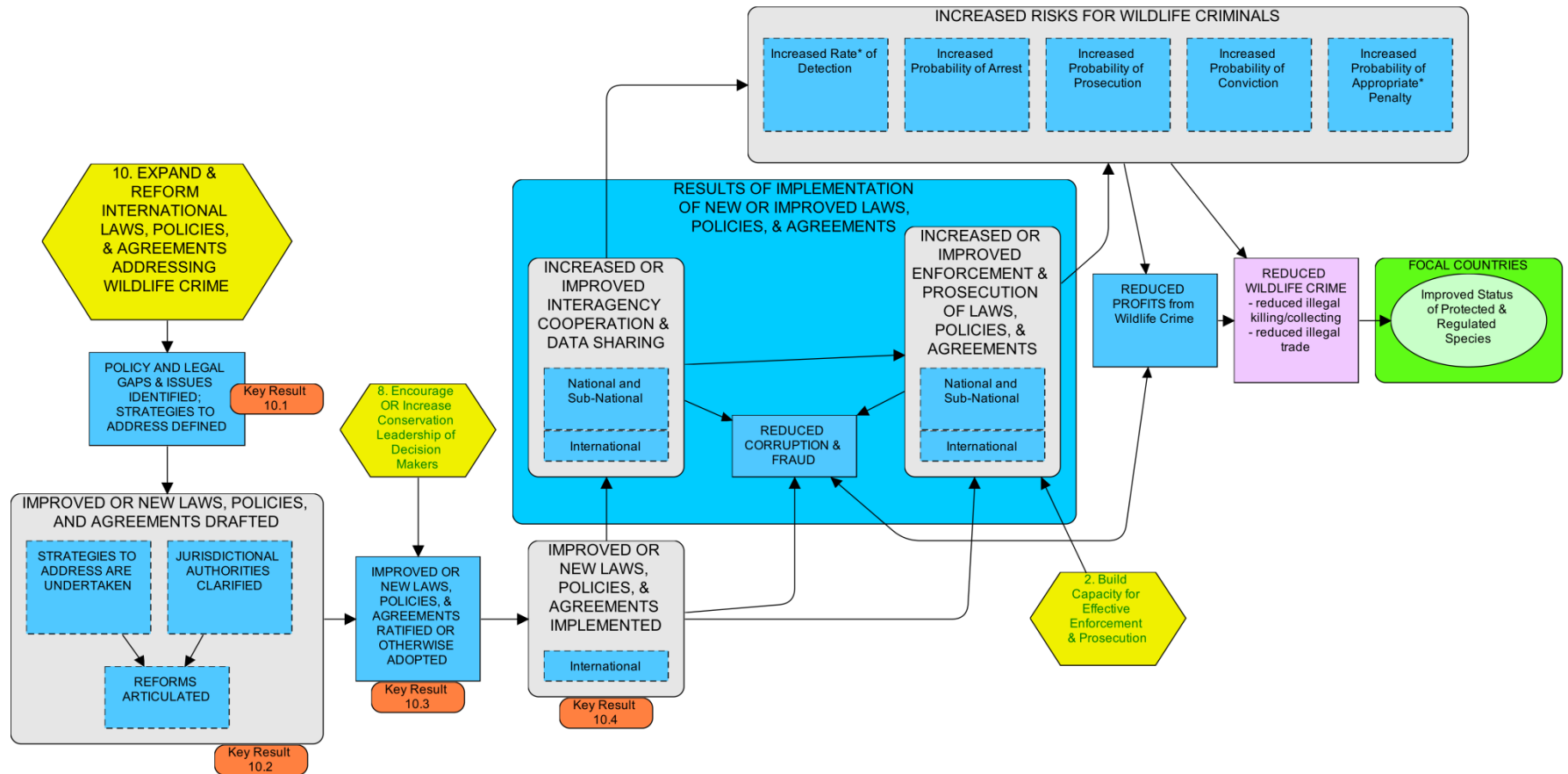
Definition:

Efforts to track and understand the status and trends of threats and status of conservation targets in order to adapt and improve conservation interventions.

Examples:

- Use of international forums (CITES, UNCBD, etc.) to modify international conventions to strengthen regulation of vulnerable wildlife products

Related to:

- CMP 8.1 Basic Research and Monitoring Status
- CMP 8.2 Effectiveness Monitoring / Adaptive Management
- USFWS 7: Applied Conservation Research

Description:

This Strategic Approach in many ways mirrors Strategic Approach 4, Support National and Sub-national Policy and Legislative Reforms. The first expected results are the identification of policy and legal gaps and issues, and the definition of relevant strategies. Once accomplished, reforms will be drafted that identify the defined strategies and clarify jurisdictional authorities. With the support of key stakeholders, these improved or new laws, policies and agreements should be ratified or adopted by relevant bodies and then implemented.

Once implemented, law and policy reforms should lead to improved enforcement and prosecution of existing laws and agreements, improved interagency cooperation and coordination, and/or reduced corruption and fraud – the specific expected results being dependent on the scope of the implemented reform. With the results achieved through the implemented reforms, the risks to wildlife criminals will increase, reducing profits from wildlife crime and overall levels of wildlife crime. As a result of reduced levels of wildlife crime, improvements in the status of protected and regulated species should ultimately follow.

It should be noted that other strategies may also be needed to develop and maintain the political will and needed to support the outcomes in this theory of change, such as efforts to increase the conservation leadership of decision makers to address wildlife crime and efforts to build capacity for effective enforcement and prosecution.

Key Result 10.1
Policy and legal gaps and issues identified, strategies to address defined

Outcome Statement: By XX, policy and legal gaps and issues are identified, and strategies to address them are defined.

Project-level Indicator: % and # of needed analyses completed that identify policy and legal gaps

Portfolio-level Indicator: % and # of projects that have completed analyses of policy and legal gaps

Key Result 10.2
Improved or new laws, policies, and agreements drafted

Outcome Statement: By XX, improved or new laws, policies, and agreements that address identified gaps and issues are drafted.

Project-level Indicator: % and # of needed reforms addressed in draft laws, policies, and agreement.

Portfolio-level Indicator: % and # of projects where a defined proportion of targeted reforms have been drafted into laws, policies, and agreements

Key Result 10.3
Improved or new laws, policies, & agreements ratified or otherwise adopted

Outcome Statement: By XX, improved or new laws, policies, and agreements that address identified gaps and issues are ratified or otherwise adopted.

Project-level Indicator: % and # of needed reforms ratified or adopted

Portfolio-level Indicator: % and # of projects where a defined proportion of targeted reforms have been ratified or adopted

Key Result 10.4
Improved or new laws, policies, & agreements implemented.

Outcome Statement: By XX, improved or new laws, policies, and agreements that address identified gaps and issues are implemented.

**Project-level Indicator:** % and # of needed reforms that are implemented.

Portfolio-level Indicator: % and # of projects where a defined proportion of targeted reforms have been implemented

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SHARED FACTORS

Several factors – results and biodiversity focal interests -- were included in multiple theory of change results chains and so were not included in the above TOC results chains and narratives in order to avoid redundancy. A detailed sub-TOC and suggested indicators for shared results are presented below.

Figure 13:
Shared factors – results (including threats) and biodiversity focal interests
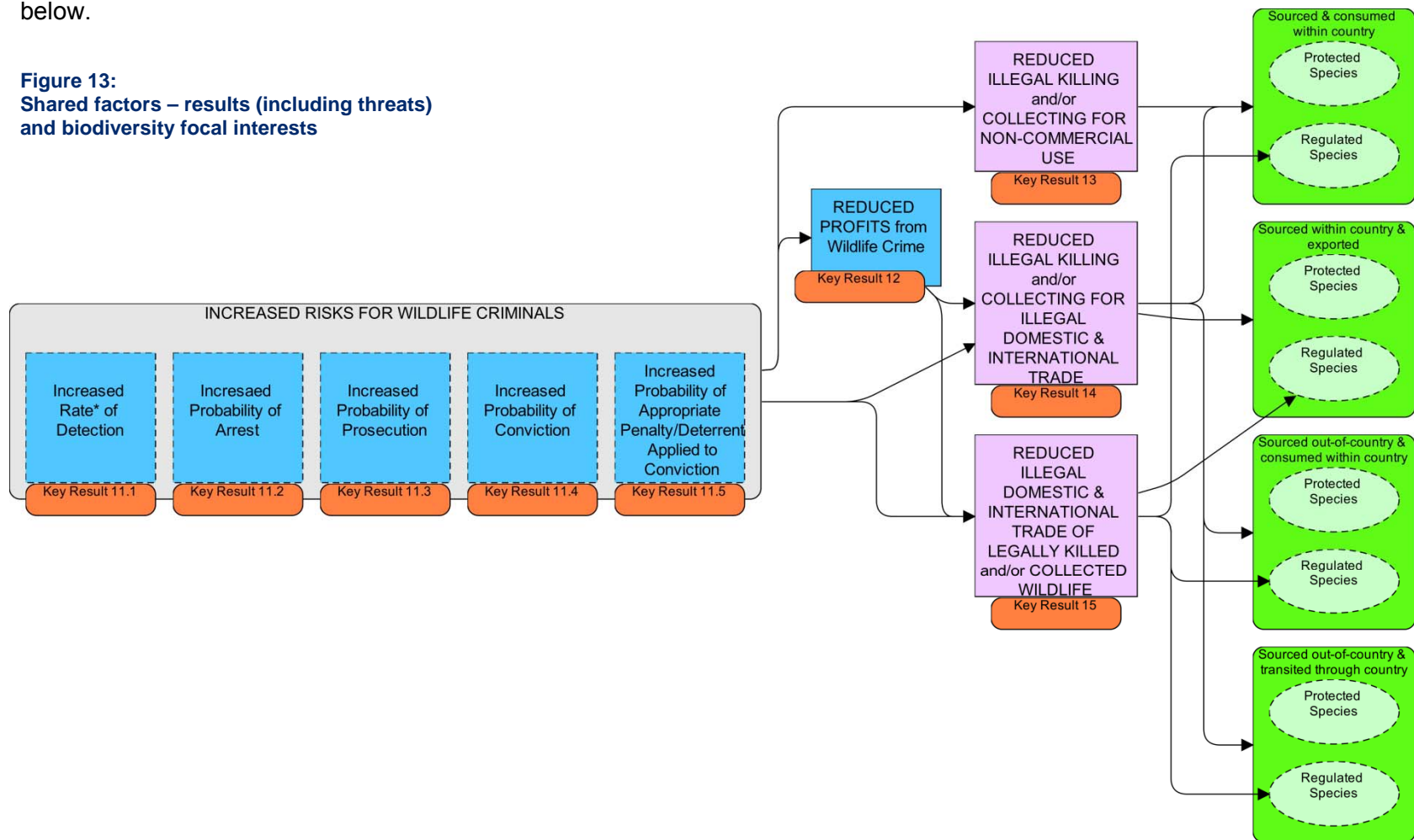
Shared Key Result Group Box 11
Increased risks to wildlife criminals

Shared Key Result 11.1
Increased rate* of detection

(* Ideally want indicator of "increased probability of detection", but due to the difficulty of independently quantifying the magnitude of a specific wildlife crime activity (whether detected or not), it may not be possible to determine "increased probability of detection". When independent data exists on the magnitude of a specific wildlife crime activity (e.g., # illegally killed elephants), both "increased rate of detection" and "increased probability of detection" should be reported.)

Outcome Statement(s):

a. By XX, increase the rate of detection for crime A by X% points.

b. When possible: By XX, increase the probability of detection of crime A from X to Y.

Project-level Indicator:

a. Encounter rate of evidence of wildlife crime = [# encounters with suspected poachers, poaching equipment, illegal wildlife products in markets, illegal wildlife products in transit, or illegal wildlife products found on a person] per unit time or area (disaggregated by type of evidence)

b. When possible: Probability of detection = # detected instances of wildlife crime/total # instances of wildlife crime (derived from Rosero 2010 and Akela & Cannon 2005)

Portfolio-level Indicator:

a. % projects showing an increased rate of detection

b. % projects showing an increased probability of detection

Shared Key Result 11.2
Increased probability of arrest

Outcome Statement: By XX, increase the probability of arrest following detection for crime A from X to Y.

Project-level Indicator: Probability of arrest = # instances of wildlife crime for which arrests were made/# instances of wildlife crime detected (derived from ADF 2013; Rosero 2010; Akella & Cannon 2005)

Portfolio-level Indicator: % projects showing an increased probability of arrest

Shared Key Result 11.3
Increased probability of prosecution

Outcome Statement: By XX, increase the probability of prosecution following detection for crime A from X to Y.

Project-level Indicator: Probability of prosecution = # prosecutions/# arrests (derived from USFWS 2014; Rosero 2010; Akella & Cannon 2005)

Portfolio-level Indicator: % projects showing an increased probability of prosecution

Shared Key Result 11.4
Increased probability of conviction

Outcome Statement: By XX, increase the probability of conviction following detection for crime A from X to Y.

Project-level Indicator: Probability of conviction = # convictions/# prosecutions (derived from Interpol 2014; USFWS 2014; Rosero 2010; Akella & Cannon 2005)

Portfolio-level Indicator: % projects showing an increased probability of conviction

Shared Key Result 11.5
Increased probability of appropriate* penalty applied

(*"Appropriate" means scaled to the severity of the crime, in line with legal penalties, and that criminals are not able to continue criminal activities (nor receive benefit) while in jail or on probation.)

Outcome Statement: By XX, increase the probability of appropriate penalty being sentenced and served following conviction for crime A from X to Y

Project-level Indicator:

a. Probability of appropriate penalty sentenced = # convictions resulting in appropriate penalties /# convictions (derived from Rosero 2010; Akella & Cannon 2005)
b. Probability of sentences of appropriate penalty being served = # convicted wildlife criminals completing sentenced jail time or paying total fines/# convictions resulting in appropriate penalties (derived from USFWS 2014)

Portfolio-level Indicator: % projects showing an increased probability of appropriate penalty being sentenced and served

Shared Key Result 12
Reduced profits from wildlife crime

Outcome Statement: By XX, reduce expected profits for wildlife criminals for crime A.

Project-level Indicator: Expected profits* from wildlife crime X.

(*"Expected profit" for a given criminal act is defined as the average "take" (gross profit) minus the expected enforcement disincentive (average penalty paid for this crime). Gross profit can be estimated from the average market value of seized goods in previous cases. The average penalty can be calculated from an analysis of the outcomes of previous court cases for the given crime. See Akella & Cannon 2005 for more information.)

Portfolio-level Indicator: % and # of projects showing a decrease in the expected profits for wildlife crime X.

Threat-reduction Key Result 13
Reduced illegal killing and/or collecting for non-commercial use

Outcome Statement: By XX, reduce the illegal killing and/or collecting of wildlife product A for non-commercial use.

Project-level Indicator: % and # of animals* illegally killed and /or collected

(*Ideally want to track # animals killed illegally as the most direct measure of the threat of poaching to the viability of populations of targeted species but as that may not be feasible for many species, appropriate proxies for measuring poaching should be used. Such proxies may include: # of poachers or snares encountered, # units of illegal wildlife product observed in markets, or % of wildlife product observed in markets that are illegal.)

Portfolio-level Indicator: % and # of projects showing decrease in # of animals illegally killed and/or collected

Threat-reduction Key Result 14
Reduced illegal killing and/or collecting for non-commercial use

Outcome Statement: By XX, reduce the illegal killing and/or collecting of wildlife product A for non-commercial use.

Project-level Indicator: same as indicator 13

Portfolio-level Indicator: same as indicator 13

Threat-reduction Key Result 15
Reduced illegal domestic and international trade of legally killed and/or collected wildlife products

Outcome Statement: By XX, reduce illegal domestic and international trade of legally killed and/or collected wildlife products

Project-level Indicator: % point change in # instances of illegal trade or transit of legally killed and/or collected wildlife products

Portfolio-level Indicator: % project (mechanisms) showing reduced of illegal trade or transit of legally killed and/or collected wildlife products

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GLOSSARY

Biodiversity Focal Interest
An element of biodiversity within a program area, such as a habitat, species, or ecological system, on which a project has chosen to focus. All biodiversity focal interests at a site should collectively represent the biodiversity of concern at the site. (Adapted from CMP 2013)

Key Results
Key results are those which are either essential to achieve in order for the strategic approach to succeed, or for which there exists an important information need (for example, the presence of untested assumptions related to that result).

Outcome Statements
An outcome statement is a formal statement that defines in specific terms what a design team hopes to achieve for the key results on the way to achieving the overall purpose or sub-purpose(s). In other words, outcome statements help teams know if they are making progress toward conserving their focal interests. (MI Forthcoming 3).

Results Chains
A results chain is a graphical depiction of a project's or activity's core assumption, the logical sequence linking strategic approaches to one or more biodiversity focal interests. In scientific terms, it lays out hypothesized relationships. (Adapted from CMP 2013).

Situation Models
A situation model is a diagram that represents relationships between key factors identified through situation analysis that are believed to impact or lead to one or more biodiversity focal interest. A good model should link the biodiversity focal interests to factors -- direct threats, opportunities, stakeholders, and key intervention points. The project design team can then adopt or develop strategic approaches to influence those factors. A situation model should also indicate which factors are most important to monitor. (Adapted from CMP 2013).

Theory of Change
Theory of Change is a generic term used widely throughout the evaluation community. Like a development hypothesis, a theory of change describes the assumptions about how a team believes a strategic approach will lead to specific results. Theories of change can be represented in a box and arrow diagrammatic form, known as a results chain (see above). A theory of change can be presented in text or diagrammatic form, or both.
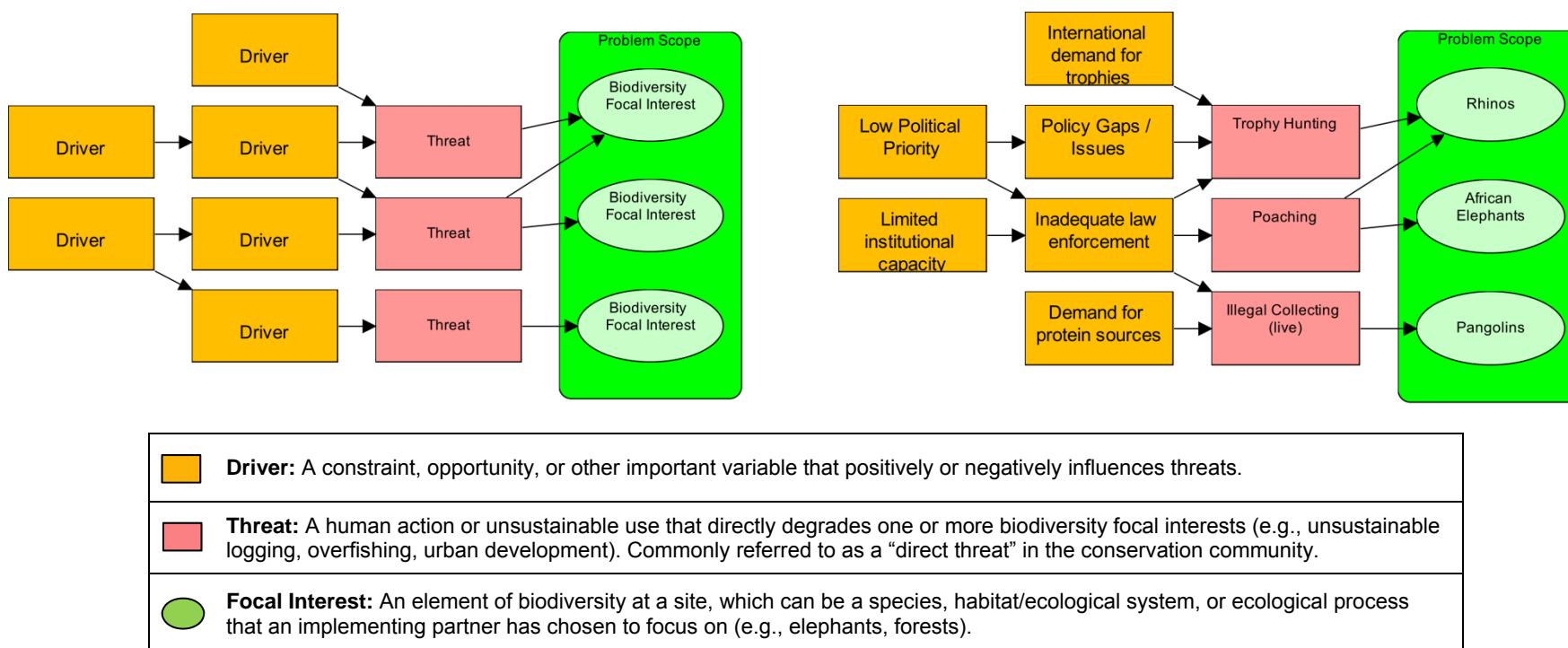
APPENDICES

APPENDIX A: SITUATION MODELS - A PRIMER

A situation model (often also called a conceptual model) is a graphical tool that can help a team understand and illustrate in a logical fashion the major forces that are influencing the focal interests of the program or project. It uses a series of boxes and arrows to succinctly represent observed or presumed causal relationships among the main drivers affecting one or more threats that, in turn, impact the biodiversity focal interest(s) and related interests in any given area.

As such, a situation model draws out and summarizes information and data typically captured in a situation or problem analysis.

Situation models use designated symbols and colors to represent strategic approaches, drivers, threats, and focal interests. Provided below are a generic model (Figure 14) and an illustrative example (Figure 15).

Figure 14: Generic and example situation models and key to factors. Arrows indicate relationships among factors

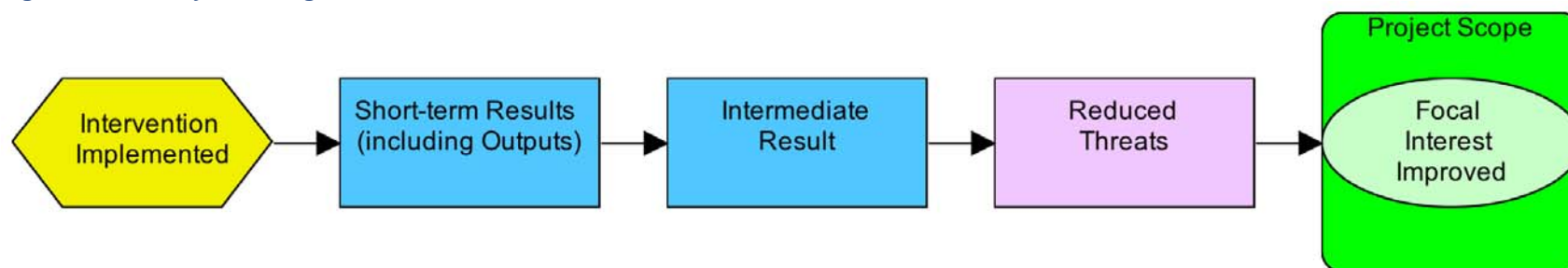|	
Driver: A constraint, opportunity, or other important variable that positively or negatively influences threats.	
Threat: A human action or unsustainable use that directly degrades one or more biodiversity focal interests (e.g., unsustainable logging, overfishing, urban development). Commonly referred to as a "direct threat" in the conservation community.	
Focal Interest: An element of biodiversity at a site, which can be a species, habitat/ecological system, or ecological process that an implementing partner has chosen to focus on (e.g., elephants, forests).	

APPENDIX B: RESULTS CHAINS - A PRIMER

A results chain is a visual representation of a theory of change. More specifically, for USAID conservation programming, a results chain can represent a team's assumptions about how they think a specific strategic approach or approaches will contribute to reducing important direct threats and lead to the conservation of biodiversity focal interests.

Results chains are structured to represent a series of causal statements that link short-, medium-, and long-term results in an "if…then" fashion, leading ultimately to the expected impacts on the focal and related interests.

Results chains can be useful for a variety of reasons: 1) to help teams discuss and refine assumptions, come to a common understanding of what they seek to achieve, and decide how they will portray it; 2) to provide a foundation for measuring effectiveness, as the results in a results chain are the units around which teams develop outcome statements and indicators to measure progress; and 3) to provide a common framework for learning across mechanisms, projects, and operating units.

Figure 15: Theory of change results chain and factor definitions

⬡	**Strategic Approach:** A set of actions undertaken by the implementing partners to reach one or more result and ultimately reduce threats to improve the viability of the biodiversity focal interest.
⬛	**Intermediate Outcome (result):** A specific benchmark or milestone that implementing partners are aiming to achieve *en route* to accomplishing the project purpose as a result of the strategic approaches (e.g., rangers have improved knowledge, more effective law enforcement). There can be many results in a development hypothesis; key results get outcome statements
⬛	**Threat-reduction result:** A specific type of intermediate result that represents a reduction in a direct threat to the focal interest (e.g., decrease in illegal hunting)
⬭	**Focal Interest:** An element of biodiversity at a site, which can be a species, habitat/ecological system, or ecological process that an implementing partner has chosen to focus on (e.g., elephants, forests).

APPENDIX C: MONITORING AND REPORTING EFFECTIVENESS ACROSS A PORTFOLIO

This document focuses on monitoring at the project and activity levels. The indicators recommended here help gauge the effectiveness of strategic approaches as well as progress by tracking the quality or quantity of one or more key results.

Each key result also includes at least one portfolio-level indicator - a recommendation for aggregating monitoring across projects and activities and provide a better understanding of the conditions under which a strategic approach is effective.

A suite of projects or activities implemented and/or funded by one organization, be it a community group, NGO, foundation or government agency, can be considered a portfolio. The same approaches described here can be applied across projects or activities in separate portfolios, perhaps to learn about the effectiveness of similar approaches under different contexts.

Some of the possible scenarios and considerations include:

Different programs, same approach: If several CWC activities in a portfolio apply the same strategic approach, one way of reporting the collective progress being made on that strategic approach is to monitor performance of one or more key results for all activities, and aggregate across activities.

Different approaches, shared factors: Many CWC strategic approaches seek to increase the rate of detection and the probability of arrest, prosecution, and/or sentencing for wildlife crime. Therefore monitoring shared factors like these can summarize progress across strategic approaches that increase the effectiveness of law enforcement. Likewise, CWC results chains commonly share a threat reduction result

focused on reduced illegal taking and/or trade in wildlife. A measure of the degree (quality or quantity) of threat reduction across multiple activities or projects could help summarize progress for a range of strategic approaches (e.g., those related to law enforcement strengthening as well as those focused on effecting policy or political improvements, building constituencies for conservation, and reducing demand for wildlife products).

Rolling up one CWC indicator across several projects or activities can give portfolio managers a sense of the proportion of the total investment that is meeting a certain milestone within a set number of years. Conversely, for some measures, the number of steps advanced on a policy or management continuum may be more important than which particular steps are achieved, and a sum or average would be helpful.

Photos

Front cover

Elephants stop for a drink on the Chobe river, Botswana. A continent-wide elephant census initiated in 2014 aims to inform conservation action and better protect these unmistakable symbols of Africa. An estimated 20,000 to 30,000 African elephants are poached for their ivory each year. Photo credit: Michiel Terrelen.

Demonstrators in Thailand take to the streets to encourage restaurants to remove shark fin from their menus.
Photo credit: Anne Shifley for Freeland Foundation.

An official throws a rhino horn and fuel onto a July 2015 fire to destroy stockpiled ivory in Mozambique, a key measure of government resolve to tackle wildlife crime.
Photo credit: Alex Dickie/USAID.

A Kazakh customs officer trains sniffer dog 'Artic' to detect concealed horn of the saiga, a threatened antelope from the high deserts of Central Asia. Photo credit: Kirk Olsen/Fauna and Flora International.

Back cover

Community rangers like this one in the Enduimet Wildlife Management Area in Tanzania help detect and deter poaching while also alerting farmers and pastoralists to be more vigilant when elephants and lions are nearby. Photo credit: Matthew Erdman for USAID.

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