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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	Automated Directives System
CBNRM	Community-Based Natural Resource Management
CSO	Civil Society Organization
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMP	Conservation Measures Partnership
CWC	Combating Wildlife Crime
E3	Bureau for Economic Growth, Education, and Environment
FAB	Office of Forestry and Biodiversity
IUU	Illegal, Unreported, and Unregulated
MEL	Monitoring, Evaluation, and Learning
NGO	Non-Governmental Organization
UNODC	United Nations Office on Drugs and Crime
U.S.	United States
USAID	United States Agency for International Development

INTRODUCTION

Killing protected or managed species and the illegal trade in wildlife and their related parts and products (hereafter called “wildlife crime”) are among the most severe threats to global biodiversity. 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. Armed conflict can exacerbate wildlife killing and trafficking, and trafficking is frequently associated with other crimes such as money laundering (Loucks et al. 2008, UNODC 2012). Wildlife criminals create insecurity in rural communities and kill park rangers, hurting morale and recruitment of park staff and reducing 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 (Gómez & Aguirre 2008), posing major risks to human and livestock health, with implications for food security, commerce, and labor productivity (i.e., Ebola virus outbreak). 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 (NGOs), research institutions, and multilateral organizations globally. Strategies to combat wildlife crime depend on accurate and reliable knowledge

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.
- **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 (U.S. 2014) Trafficking, the term deliberately encompasses both poaching and illicit trade.
- **Wildlife Crime:** actions that break laws that govern wildlife management, 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. National Strategy for Combating Wildlife Trafficking (U.S. 2014) 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.

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 United Nations report concluded 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.

The United States Agency for International Development (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 Executive Order 13648 on Combating Wildlife Trafficking and the United States National Strategy for Combating Wildlife Trafficking (U.S. 2014), as well as associated funding and directives for USAID to increase programming on these issues, the Office of Forestry and Biodiversity (FAB) in USAID’s Bureau for Economic Growth, Education, and Environment (E3) identified a need to define robust strategic approaches and associated indicators with which to track progress on USAID’s investments in combating wildlife crime (CWC) and gauge the effectiveness of different approaches.

As part of these efforts, Measuring Impact² staff collaborated with experts from E3/FAB, other U.S. Government agencies,

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.

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 well-considered and 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 strategic approaches are likely to be most successful in achieving their purpose.

² Measuring Impact is a five-year activity 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.

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 (see Box 2). To this end, USAID has set out to develop a set of custom indicators for use in project design and reporting on projects related to combating wildlife crime, some of which contribute to existing Standard Foreign Assistance Indicators.

Box 2. Types of Indicators

Standard indicators are used primarily for reporting purposes. Annual performance reporting by the U.S. 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.

Context 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 are still useful for decisions on where to allocate effort.

See the [USAID Monitoring Toolkit](#) (USAID 2017a) 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 portfolio³ level – are presented, along with a collection of associated tools (situation model, results chain-based theories of change for common strategic approaches) that were used to identify where monitoring is most needed. These tools are expected to be useful for program design, proposal review, and development of indicators to support adaptive management, evaluation, and reporting. The audience for this toolkit includes host governments, USAID and other donors, and project implementers. In addition to this document, two summaries of potentially relevant indicators may assist with the indicator-selection process:

- [Summary of Indicators for Combating Wildlife Trafficking](#) (USAID 2015a) 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.
- [Summary of Indicators for Combating Wildlife Trafficking: Insights from Sectors Outside Conservation](#) (USAID 2015b) 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.

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**⁴ (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 attribute the contributions of any one action.

THEORY OF CHANGE APPROACH

A **theory of change** is a narrative description, usually accompanied by a graphic or visual depiction, of how and why a purpose or result is expected to be achieved in a particular context. (Program Cycle Operational Policy (Automated Directives System (ADS) 201)). It outlines *assumed* if-then relationships that link a strategic approach to preliminary or short-term results and the final desired impact.

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. Situation models summarize the context or problem of interest, before any solutions or strategic approaches are proposed.

Box 3. Origins of the Theory of Change Approach to Indicator Development

The theory of change approach described here is based on the approach outlined in *The Open Standards for the Practice of Conservation* (CMP 2013) and guidance developed by USAID E3/FAB to support mission-level work in adaptive management ([Biodiversity How-To Guide 3: Defining Outcomes and Indicators for Monitoring, Evaluation, and Learning in USAID Biodiversity Programming](#) (USAID 2016c)).

This approach is becoming increasingly common and was recently used by the Association of Fish and Wildlife Agencies to establish common indicators for measuring the effectiveness of state wildlife grants (Association of Fish and Wildlife Agencies 2011), as well as by the U.S. Fish and Wildlife Service to develop standard measures of effectiveness and threats for wildlife conservation in Central Africa (USFWS 2014).

⁵ See also, [Biodiversity How-To Guide 1: Developing Situation Models in USAID Biodiversity Programming](#) (USAID 2016a).

Figure 1. Example Results Chain-Based Theory of Change

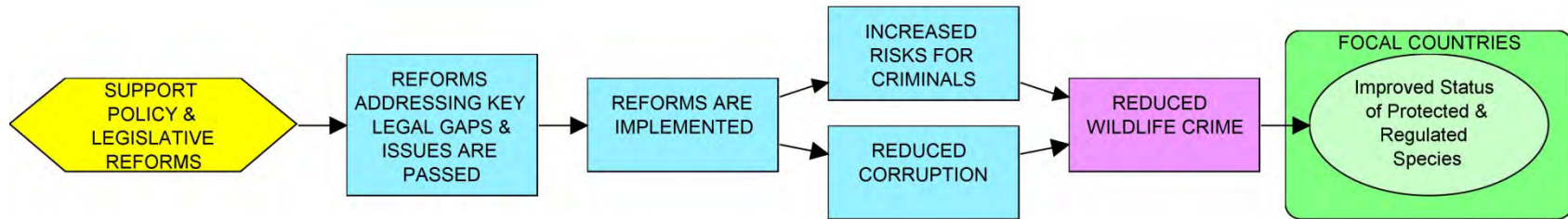






Diagram Key			
 Strategic Approach	 Results	 Threat Reduction Result	 Biodiversity Focal Interest

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 design team expects that their strategic approach will lead to preliminary 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, situation models and results chain-based theories of change 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, monitoring and evaluation plans, and the reporting and learning associated with them.

⁶ See also, [Biodiversity How-To Guide 2: Using Results Chains to Depict Theories of Change in USAID Biodiversity Programming](#) (USAID 2016b).

PROCESS FOR CREATING CUSTOM INDICATORS

The process undertaken by E3/FAB for developing the tools presented in this toolkit emphasized the collection of information and input from wildlife crime experts both within and external to the Agency. The process progressed through two distinct stages. Key steps are outlined below:⁷

Stage 1: Development of Draft Results Chain-Based Theories of Change, Key Results, and Candidate Indicators

1. Developed 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.
2. Identified the common strategic approaches for addressing wildlife crime on which the Agency will monitor progress.
3. Described the general theory of change and developed a results chain based on the situation model for each common strategic approach to show how the action will lead to desired impacts.
4. Identified key results at different points along each results chain where monitoring efforts should be focused.
5. Defined general outcome statements for key results to specify, to the extent possible, the expected outcome for each key result.
6. Defined a limited set of candidate indicators to assess progress, at the activity, project, and portfolio levels, towards achievement of outcome statements for each identified key result along each results chain. The aforementioned indicator summaries informed the definition of candidate indicators. 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.

Stage 2: Refinement of Results Chain-Based Theories of Change, Key Results, and Candidate Indicators Through Further Stakeholder Review

1. Introduced E3/FAB's effort to develop the toolkit to USAID mission staff via webinars and email.
2. Conducted a series of small-group calls with mission staff to vet and refine results chain-based theories of change, and associated key results and indicators.
3. Synthesized mission input and revised results chain-based theories of change, and associated key results and indicators.
4. Finalized indicators and key results shared by multiple strategic approaches, and harmonized full suite of indicators and tools.

Throughout the process of developing and refining results chain-based theories of change, key results, and indicators, multiple stakeholders within USAID, other U.S. Government agencies, and NGOs have been actively engaged.

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

⁷ This process is consistent with USAID's three [Biodiversity How-To Guides](#) (USAID 2016a,b,c).

targets appropriate to the context in which they are working, considering criteria for what makes a good indicator (Box 4).

[USAID Performance Indicator Reference Sheets](#) have been drafted for a set of indicators selected from Toolkit 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** – Does not change over time; 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 [USAID Monitoring Toolkit](#) (USAID 2017a) for additional considerations and criteria for indicator selection.

GENERAL SITUATION MODEL FOR COMBATING WILDLIFE CRIME

The combating wildlife crime situation model (Figure 2 on page 12) 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. This situation model also served as the foundation for the development of the results chain-based 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 transitted 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 products.

Other threats, not directly associated with 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 design teams in adapting this model for a particular context.

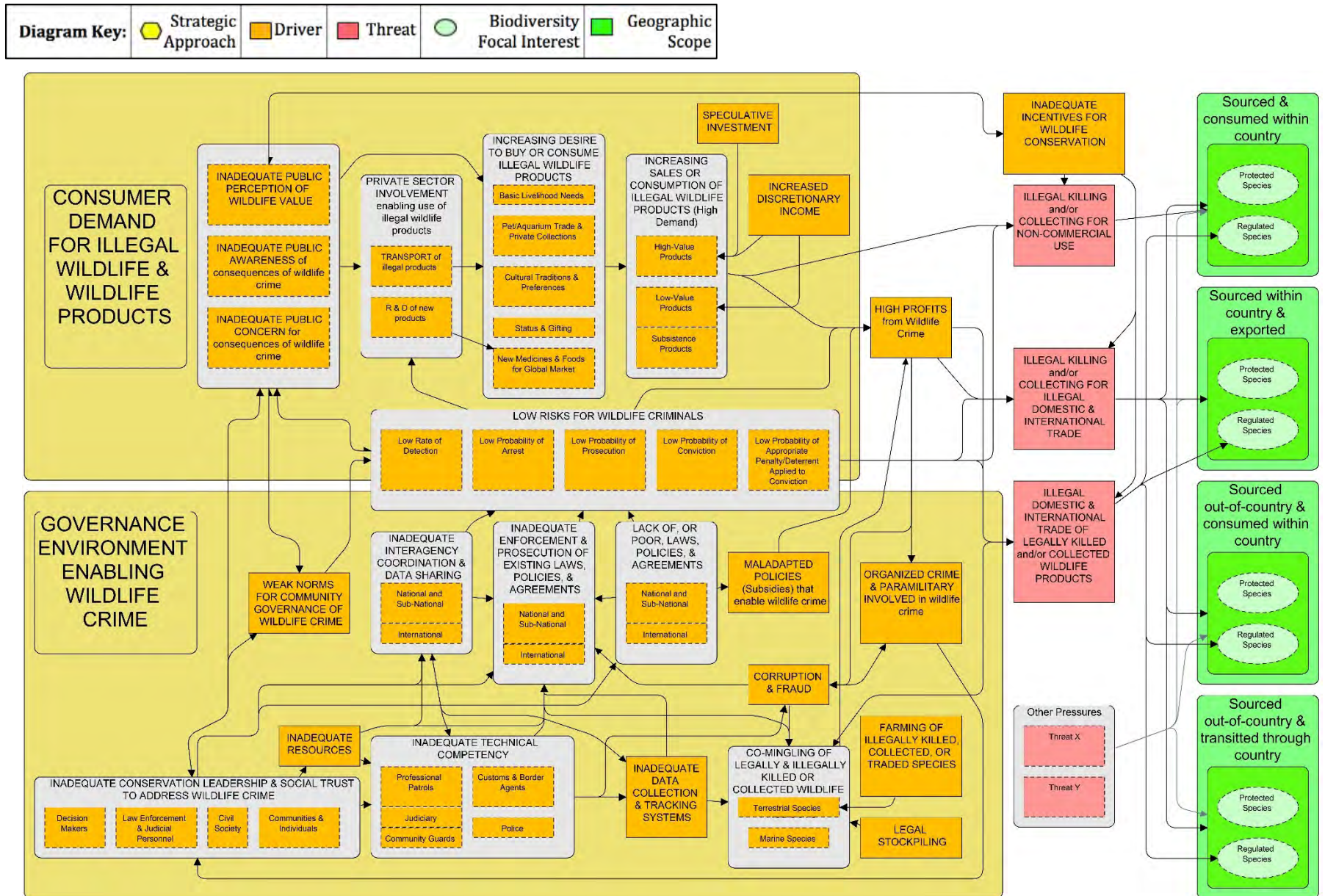
For the specified threats, two main drivers were identified: high profits available to those who engage in wildlife crime and relatively low risk for wildlife criminals (reflecting relatively low efficacy of wildlife law enforcement). Inadequate incentives for wildlife conservation are also noted as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



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 for 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 for wildlife criminals 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, including the U.S. National Strategy for Combating Wildlife Trafficking (U.S. 2014), published articles on wildlife crime, NGO reports, and information gleaned from performance reporting on USAID programs provided by E3/FAB. Ten strategic approaches were chosen by E3/FAB for further consideration and were reviewed and vetted with participants from USAID (E3/FAB and missions), other U.S. Government agencies, and NGOs.

The ten strategic approaches are listed and defined in Table 1 on page 15. 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
<p>Strategic Approach 1 Reduce Consumer Demand through Behavior Change Methodologies</p>	<p>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</p>
<p>Strategic Approach 2 Build Law Enforcement Capacity</p>	<p>Provision of financial or technical assistance to improve the capacity of governments and agencies to enforce wildlife laws and prosecute wildlife criminals</p>
<p>Strategic Approach 3 Reduce Tolerance and Opportunities for Corruption</p>	<p>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 that frequently promotes or facilitates crime and prevents an effective response</p>
<p>Strategic Approach 4 Reform National Laws and Policies Addressing Wildlife Crime</p>	<p>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</p>
<p>Strategic Approach 5 Improve Traceability of Legal Wildlife Products</p>	<p>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</p>
<p>Strategic Approach 6 Strengthen International and Interagency Cooperation in Data Sharing and Enforcement</p>	<p>Support for national and international systems and processes to improve coordination and cooperation among agencies to combat wildlife crime</p>
<p>Strategic Approach 7 Increase Community Action and Support to Combat Poaching and Trafficking</p>	<p>Efforts to build community support and action to decrease poaching and illegal activity</p>
<p>Strategic Approach 8 Promote Conservation Leadership by Decision Makers</p>	<p>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</p>
<p>Strategic Approach 9 Improve Conservation Approaches through Better Information on Status and Trends</p>	<p>Efforts to track and understand the status and trends of threats and the status of biodiversity focal interests in order to adapt and improve conservation strategic approaches</p>
<p>Strategic Approach 10 Expand and Reform International Laws, Policies, and Agreements Addressing Wildlife Crime</p>	<p>The development, modification, and promotion of international laws, policies, and agreements related to wildlife crime in order to directly reduce threats or support other strategic approaches</p>

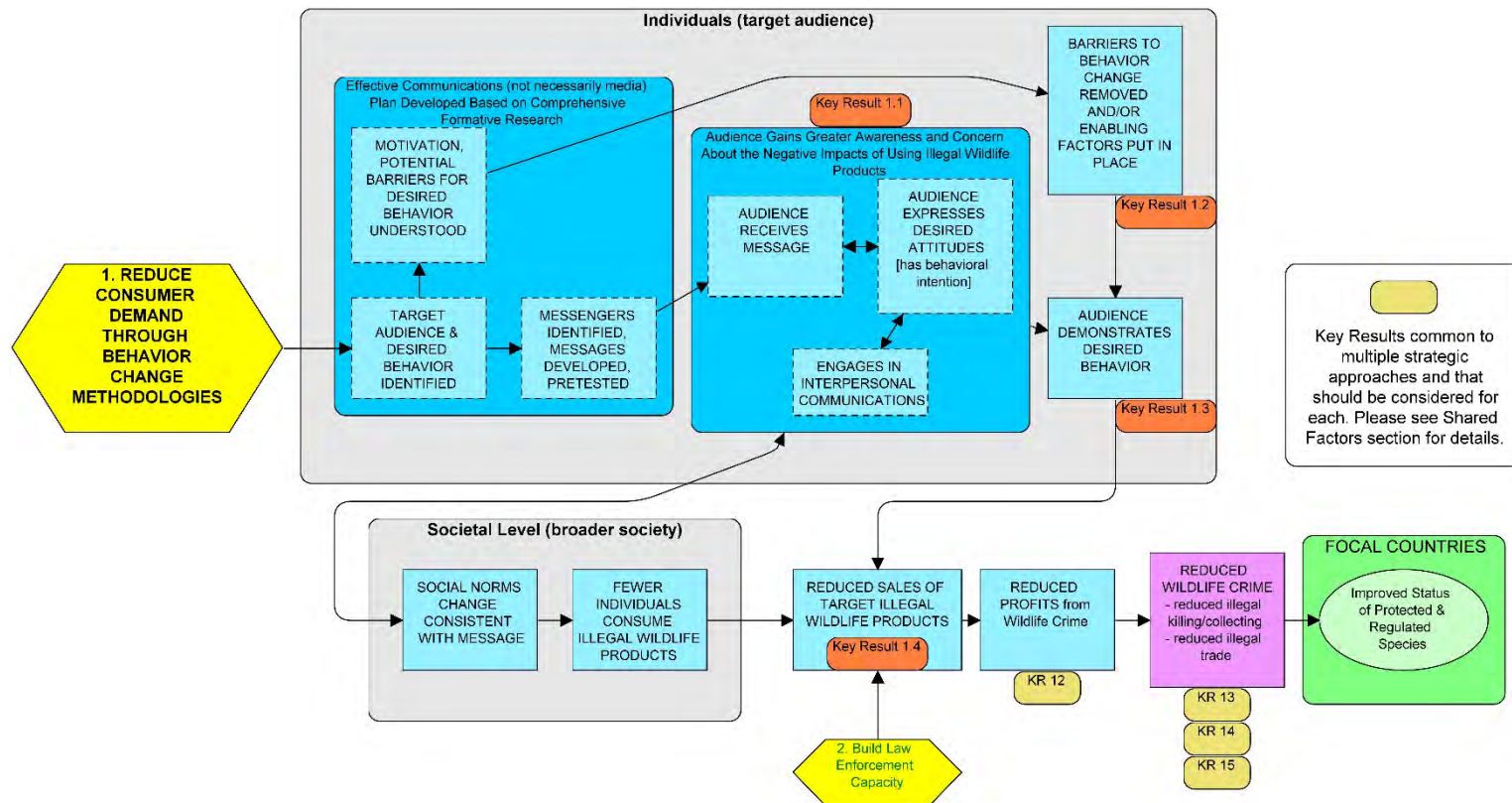
THEORIES OF CHANGE AND RECOMMENDED INDICATORS FOR STRATEGIC APPROACHES

For each common strategic approach identified, USAID developed general results chain-based theories of change with narrative descriptions, identified key results and associated general outcome statements, and candidate indicators (at the project- and portfolio-level). Theories of change (and associated key results, outcome statements, and indicators) are presented in this section.

Note: for simplicity, threat-reduction results (light purple box) and improved status of focal interests (green-colored elements) are represented as single factors in each results chain. See Figure 13 on page 62 for full detail.

STRATEGIC APPROACH 1: REDUCE CONSUMER DEMAND THROUGH BEHAVIOR CHANGE METHODOLOGIES

Figure 3: 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:

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

Related to:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Raise Public Awareness and Change Behavior
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Promote Demand Reduction Efforts Globally
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 3.1 – Outreach and Communication (promoting desired awareness and/or emotions and subsequent behavior change by providing information to target audiences through appropriate channels)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 6 – Public Campaigns (raising environmental awareness and sharing information to change values [*sic*] and behavior through media or other mechanisms of public campaigns)

USAID's [Combating Wildlife Trafficking Cross-Mission Learning Agenda](#) focuses on strategic approaches 1, 2, and 7 (USAID 2017b).

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 project 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 barriers to behavior change are removed or enabling factors for behavior change are put in place, the target audience should begin to express the desired attitudes and talk with others about it (interpersonal communications), which will help with uptake of the message and further expression 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 demonstrate the desired behavior, leading to fewer sales and reduced profits from wildlife crime. This should lead to reduced occurrences of wildlife crime and improvements in the status of protected and regulated species.

Additionally, as the target audience adopts the desired attitudes and communicates with others (beyond the target audience) about them, there should be a change in the 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 engaging in the undesired behavior and further reductions in sales of illegal wildlife products.

To achieve sufficient reduction in sales of illegal wildlife products to support this theory of change, it may be necessary to implement a strategic approach to build law enforcement capacity to deter trafficking.

Key Result 1.1

Audience gains greater awareness and concern about the negative impacts of using illegal wildlife products

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

Project-Level Indicators:

- a. Percent of target audience that receives message (derived from USFWS 2014, MEASURE Evaluation 2016a)
- b. Percent of target audience that expresses desired attitudes (derived from MEASURE Evaluation 2016b)
- c. Percent of target audience that engages in increased interpersonal communication on the topic

Portfolio-Level Indicator: Percent and number of projects that met objectives for the target audience receiving the message, expressing attitudes, and engaging in increased interpersonal communication

Key Result 1.2

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

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

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

Portfolio-Level Indicator: Percent and number of projects that met objectives for barrier reduction and/or the enabling of the desired behavior

Key Result 1.3

Audience demonstrates desired behavior

Outcome Statement: Within XX months of project launch, X% of target audience demonstrates desired behavior.

Project-Level Indicator: Percent of target audience that demonstrates desired behavior (derived from MEASURE Evaluation 2016c)

Portfolio-Level Indicator: Percent and number of projects that met objectives for target audience demonstrating the desired behavior

Key Result 1.4

Reduced sales of target illegal wildlife products

Outcome Statement: Within XX months of project launch, target illegal wildlife product sales are reduced by X%.

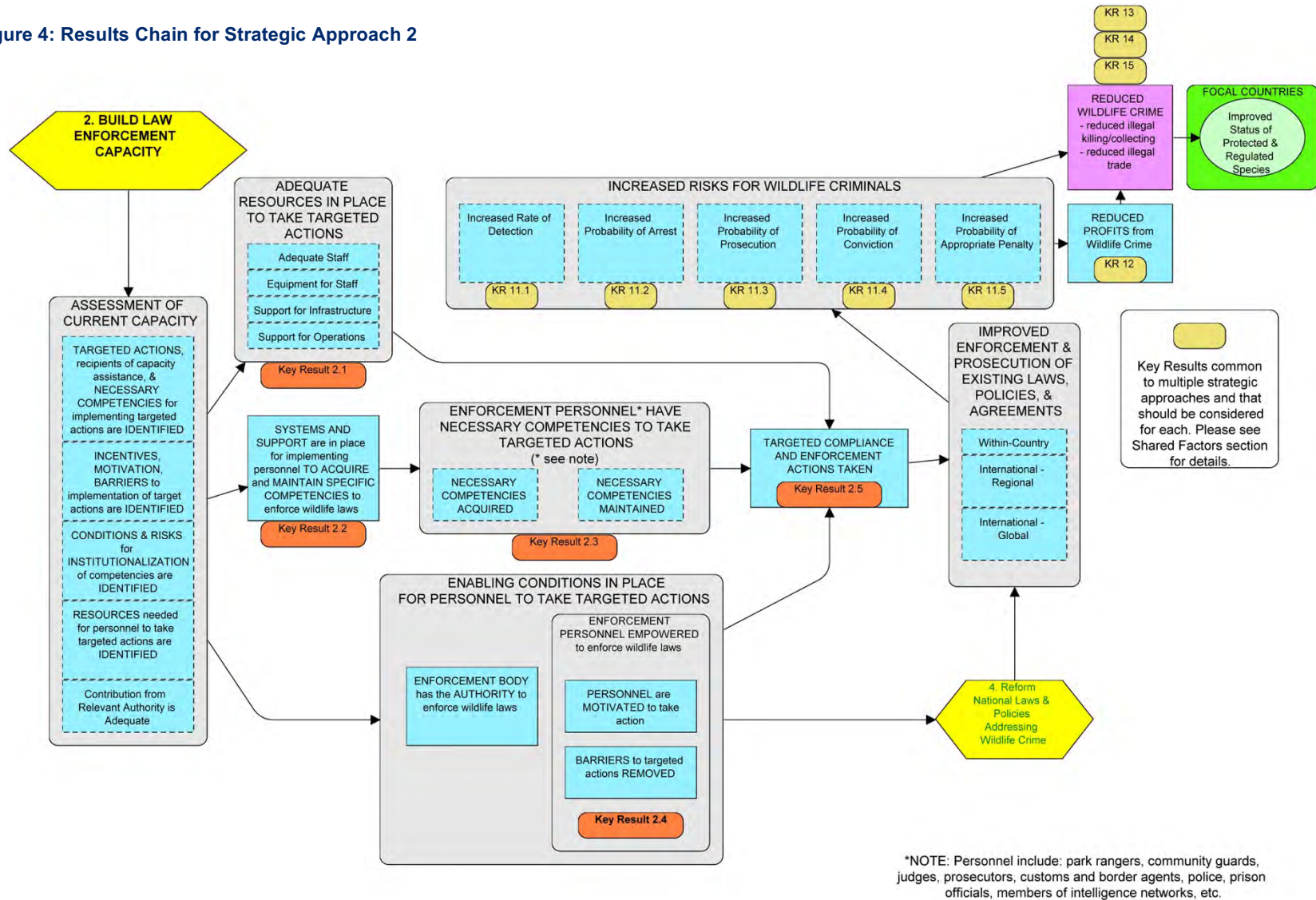
Project-Level Indicator: Percent change in sales of target illegal wildlife and wildlife products

Portfolio-Level Indicator: Percent and number of projects that show reductions in sales of target illegal wildlife products

NOTES

STRATEGIC APPROACH 2: BUILD LAW ENFORCEMENT CAPACITY

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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Support Governments in Building Capacity
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Strengthen Interdiction and Investigative Efforts
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Support the Development of an Effective Worldwide Network of Wildlife Enforcement Networks (WENs)
- Presidential Task Force on Combating Illegal, Unreported, and Unregulated (IUU) Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 6. International - Capacity Building
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 4.1 – Detection and Arrest (detecting, directly stopping, and/or deterring violations of existing laws and policies)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 4.2 – Criminal Prosecution and Conviction

(ensuring appropriate application of sanctions for violations of existing laws and policies)

- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 9.2 – Training and Capacity Development (enhancing knowledge, skills, and information exchange for practitioners, stakeholders, and other relevant individuals in structured settings outside of degree programs)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.2 – External Organizational Development and Support (creating or providing non-financial support and capacity building for conservation organizations)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.4 – Financing Conservation (raising and providing funds for conservation work)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 1 – Set up and Manage Patrols (scheduled field surveillance of protected areas to protect wildlife and to deter illegal activities)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 2 – Training and Capacity Development (planned learning for professionals, key stakeholders or others to improve abilities to carry out conservation management activities and techniques)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 4 – Wildlife Law and Compliance (monitoring and enforcing compliance with wildlife conservation-related laws, policies and regulations, and standards and codes in the judiciary system)

USAID's [Combating Wildlife Trafficking Cross-Mission Learning Agenda](#) focuses on strategic approaches 1, 2, and 7 (USAID 2017b).

Description:

This theory of change begins with an assessment of current capacity that identifies:

- The targeted actions, recipients of capacity-building assistance, and necessary competencies for implementing 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 personnel to take targeted actions; and
- Whether the contribution from relevant authority is adequate.

Following the capacity assessment, actions are taken to address the identified gaps and issues. These actions should result in the provision of adequate resources (staff, equipment, and support for infrastructure and operations) to undertake targeted actions. These actions should also result in the provision of systems and support for implementing personnel to acquire or maintain specific competencies to enforce wildlife laws. These systems and support enable enforcement personnel to acquire and maintain the necessary competencies to take targeted actions.

Additionally, following the capacity assessment, it is expected that enabling conditions will be put in place for personnel to take targeted actions; namely, that the enforcement body has the authority to enforce laws, personnel are motivated, and barriers to targeted action are removed.

Through the combination of adequate resources, competencies, and authority and empowerment of personnel, 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 for

wildlife criminals, reducing their profits and overall levels of wildlife crime, leading ultimately to improvements in status of protected and regulated species.

To achieve the results in the theory of change, strategic approaches to reform national laws and policies may be needed to enable adequate institutional support for staff and the creation of the conditions for institutionalization of competencies, and to improve enforcement and prosecution of existing laws and agreements.

Key Result 2.1

Adequate resources in place to take targeted actions

Outcome Statement: By XX, adequate staff, equipment, and support for operations and infrastructure are in place for enforcement personnel to successfully carry out targeted actions.

Project-Level Indicator: Extent to which needed resources are secured for personnel to successfully carry out targeted actions

Portfolio-Level Indicator: Percent and number of targeted entities/agencies that have adequate resources for enforcement personnel to successfully carry out targeted actions (disaggregated by type of resource)

Key Result 2.2

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

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

Project-Level Indicator: Evidence of working systems and adequate support for staff to acquire and maintain competencies to enforce wildlife laws [Y/N]

Evidence could include:

- Percent and number of personnel in the identified audience receiving training in targeted competencies
- Percent of budget dedicated to training

- A continuing legal education requirement is incorporated into merit criteria (Y/N, Handbook of Democracy and Governance Program Indicators PN-ACC-390 (USAID 1998))
- Percent of staff given formal annual performance reviews (Handbook of Democracy and Governance Program Indicators PN-ACC-390 (USAID 1998))
- Existence of standard operating procedures or guidelines on use of relevant enforcement techniques (Y/N, UNODC 2009)

Portfolio-Level Indicator: Percent and number of entities/agencies that have working systems and adequate support for staff to acquire competencies to enforce wildlife laws

Key Result 2.3

Enforcement personnel⁸ have necessary competencies to take targeted actions

Outcome Statement: By XX, competencies are acquired and being maintained by the group receiving capacity-building assistance.

Project-Level Indicators:

- a. Percent and number of personnel in the group receiving capacity-building assistance that were trained in targeted competencies
- b. Percent and number of personnel in the group receiving capacity-building assistance that meet the competency level for their position

Portfolio-Level Indicator: Percent and number of entities/agencies in which at least X percent of personnel in the group receiving capacity-building assistance meet the competency level for their position

⁸ Personnel include park rangers, community guards, judges, prosecutors, customs and border agents, police, prison officials, members of intelligence networks, etc.

Key Result 2.4

Enforcement personnel empowered to enforce wildlife laws

Outcome Statement: By XX, the enforcement body has implemented measures to motivate personnel to take targeted actions and to remove the barriers to their doing so, and personnel acknowledge their empowerment to enforce wildlife laws.

Project-Level Indicators:

- a. Policies, protocols, oversight systems, and/or personnel-support systems are in place to enable personnel to perform their duties without bias or constraint [Y/N]

Depending on the results of the capacity assessment, these could include:

- Presence of a functioning internal disciplinary/internal affairs office which monitors for violations in various key institutions (USAID Handbook of Democracy and Governance Program Indicators PN-ACC-390 (USAID 1998))
- Presence of a whistle-blower protection policy for staff (USAID Handbook of Democracy and Governance Program Indicators PN-ACC-390 (USAID 1998))
- Presence of formal or informal systems to support personnel in addressing corruption or coercion (e.g., mentoring or peer-to-peer support systems)

- b. Incentives and safety measures are in place to motivate staff to take targeted actions [Y/N] Depending on the results of the capacity assessment, these could include:

- Adequate compensation for enforcement personnel
- Recognition systems (e.g., awards) for enforcement personnel exceeding performance requirements
- Financial resources to support families in event of death or disability of enforcement personnel (e.g., widows' fund)
- Adequate safety measures (e.g., equipment and protocols) in place to ensure safety of enforcement personnel during the performance of their duties

- c. Percent and number of enforcement personnel in the group receiving capacity-building assistance that report they are empowered to take targeted actions

Portfolio-Level Indicators:

- a. Percent and number of enforcement bodies that have policies, protocols, oversight systems, or personnel-support systems in place to enable personnel to perform their duties without bias or constraint
- b. Percent and number of enforcement bodies that have incentives and safety measures in place to motivate staff to take targeted actions
- c. Percent and number of enforcement bodies in which at least X% of their enforcement personnel report they are empowered to take targeted actions

Key Result 2.5

Targeted compliance and enforcement actions taken

Outcome Statement: By XX, percent and number of personnel in the group receiving capacity-building assistance that successfully carry out targeted compliance and enforcement actions.

Project-Level Indicator: Percent and number of personnel in the group receiving capacity-building assistance that successfully carry out targeted compliance and enforcement actions (derived from USFWS 2014; disaggregated by step in the enforcement-prosecution chain)

Portfolio-Level Indicator: Percent and number entities/agencies in which at least X% of personnel in the group receiving capacity-building assistance successfully carry out targeted compliance and enforcement actions (disaggregated by step in the enforcement-prosecution chain)

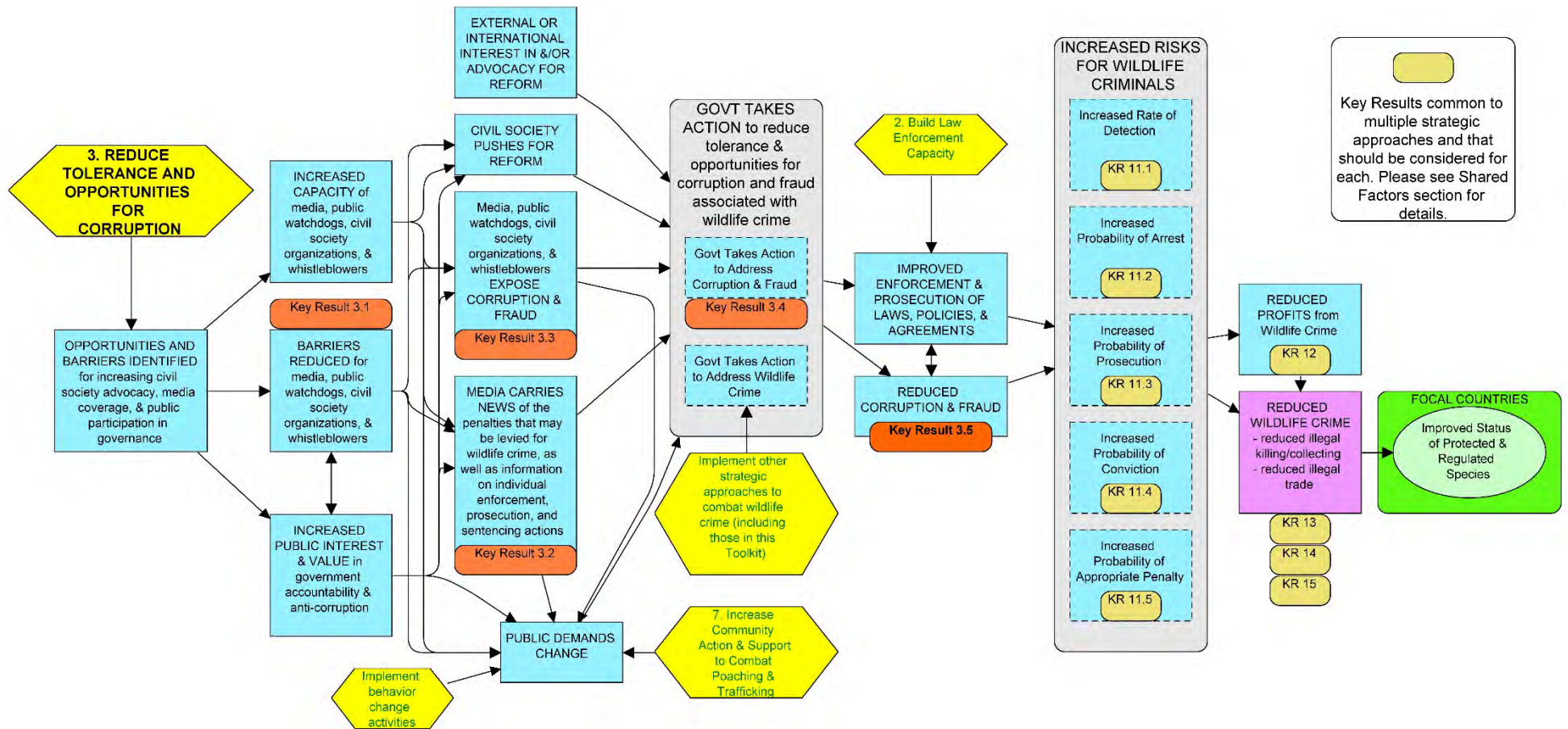
Box 5. Avoiding Unintended Consequences

In designing and implementing a strategic approach such as this to strengthen law enforcement, considerable thought (e.g., Political Economy Analysis) needs to go into understanding the socio-political and cultural context within which law enforcement approaches are implemented. Implementers need to be mindful of possible unanticipated and negative outcomes that could result from misdirected targeting of enforcement actions against lower-level perpetrators (who are easiest to catch and convict) as opposed to middlemen and higher-level criminals and kingpins.

Project teams should consider designing activities that incentivize the capture of the largest-impact criminals. Overly criminalizing lower-level poachers can have an overall negative effect, particularly on communities, and can limit opportunity to cultivate allies in wildlife crime enforcement.

STRATEGIC APPROACH 3: REDUCE TOLERANCE AND OPPORTUNITIES FOR CORRUPTION

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 that 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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Focus on Corruption and Illicit Financial Flows
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Raise Public Awareness and Change Behavior
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 3.1 – Outreach and Communications (promoting desired awareness and/or emotions and subsequent behavior change by providing information to target audiences through appropriate channels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 4.3 – Non-Criminal Legal Action (threatening or bringing non-criminal legal action to get individuals, organizations, agencies, or firms to change or deter undesired behaviors or compel conservation action)

- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.2 – External Organization Development & Support (creating or providing non-financial support and capacity building for non-profits, government agencies, communities, and for-profits)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.3 – Alliance and Partnership Development (forming and facilitating partnerships, alliances, and networks of organizations)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 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)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 4 – Wildlife Law Compliance and Enforcement (monitoring and enforcing compliance with wildlife conservation-related laws, policies and regulations, and standards and codes in the judiciary system)

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, public watchdogs, civil society organizations (CSOs), and whistleblowers; (2) reduced barriers for the media, public watchdogs, CSOs, and whistleblowers; 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, and the media, public watchdogs, CSOs, and whistleblowers 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 these results feeding back to each other). These results should increase the risks for wildlife criminals, reducing their profits and leading to reduced wildlife crime and ultimately 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 activities and/or a strategic approach to increase community action and support to combat poaching and trafficking might be required. Similarly, for the government to take action to address wildlife crime, other strategic approaches to combat wildlife crime (including others in this Toolkit) may be needed. Additionally, this strategic approach may not be sufficient to result in improved enforcement and prosecution of laws and agreements, so another strategic

approach that builds law enforcement capacity might be needed.

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

- [A Practical Guide: Measuring Corruption and the Impact of Anti-Corruption Interventions](#) (USAID 2002)
- [Tools for Assessing Corruption and Integrity in Institutions](#) (USAID 2005)
- [Practitioner's Guide for Anticorruption Programming](#) (USAID 2015c)

A few additional outside resources on this topic might be useful. See Heywood and Rose 2014 and Anderssen et. al. 2006.

Key Result 3.1

Barriers reduced for media, public watchdogs, CSOs, and whistleblowers

Outcome Statement: By XX, identified barriers for media, public watchdogs, CSOs, and whistleblowers are reduced.

Project-Level Indicator: Evidence of reduced barriers

Examples could include:

- Increased press freedom or information access
- Whistleblower protections
- Press conferences and opportunities for public participation
- Fewer journalists and activists being detained, jailed, publicly criticized or threatened

Portfolio-Level Indicator: Percent of projects that have met their objectives for barrier removal

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: Percent (or number if total number not known) of wildlife crime arrests, court proceedings, and sentences that are carried in targeted media sources (derived from USFWS 2014)

Portfolio-Level Indicator: Percent and number of projects that have met their objectives for media coverage (derived from USFWS 2014)

Key Result 3.3

Media, public watchdogs, CSOs, and whistleblowers expose corruption and fraud

Outcome Statement: By XX, corruption and fraud associated with wildlife crime is frequently exposed by media, public watchdogs, CSOs, and whistleblowers.

Project-Level Indicator: Number of cases of corruption and fraud exposed by media, public watchdogs, CSOs, and whistleblowers

Portfolio-Level Indicator: Percent and number of projects that show any cases of corruption and fraud exposed by media, public watchdogs, CSOs, and whistleblowers

Key Result 3.4

Government takes action to address corruption and fraud associated with wildlife crime

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

Project-Level Indicators:

- a. Number of government-agency actions taken to decrease opportunities for corruption and fraud associated with wildlife crime

Examples could include:

- Changed procedures
- Internal and external audits take place in accordance with required schedules
- Code of conduct put in place

- b. Number of official actions taken to convey reduced tolerance for corruption and fraud associated with wildlife crime

Examples could include:

- Public statements condemning corruption and fraud associated with wildlife crime
- Enhanced sanctions or penalties for corruption and fraud associated with wildlife crime

Portfolio-Level Indicator: Percent and number of 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 project launch, X% of the public believes that corruption and fraud related to wildlife crime is reduced.

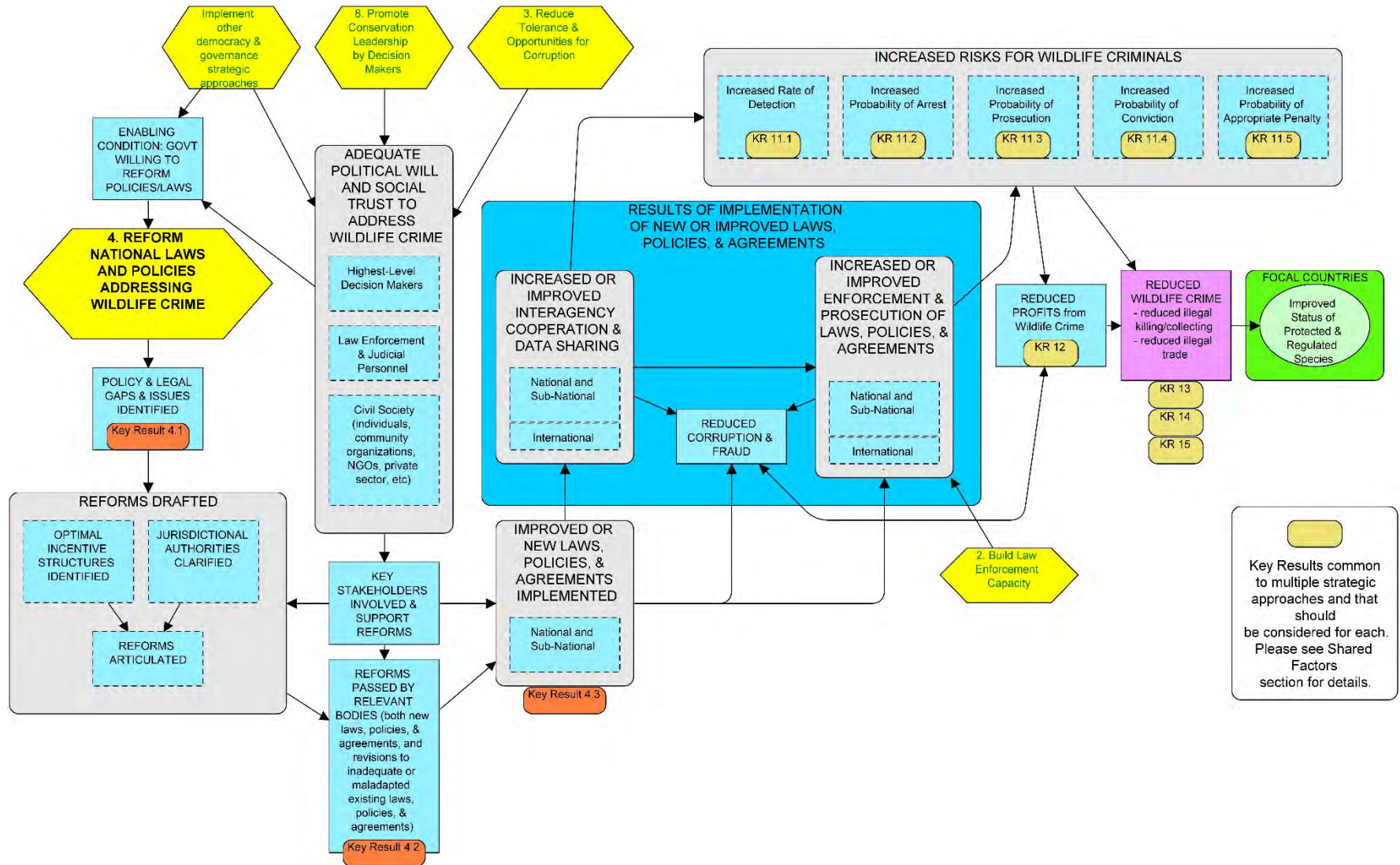
Project-Level Indicator: Percent of surveyed public perceiving that corruption and fraud related to wildlife crime is reduced

Portfolio-Level Indicator: Percent and number of projects that have met their objectives for reducing corruption and fraud related to wildlife crime

NOTES

STRATEGIC APPROACH 4: REFORM NATIONAL LAWS AND POLICIES ADDRESSING WILDLIFE CRIME

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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Strengthen International Agreements and Arrangements that Protect Wildlife
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Cooperate with Other Governments (Bilateral and Regional)
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 12. Enforcement – Enforcement Authorities
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.1 – Laws, Regulations, and Codes (creating, amending, or influencing laws, regulations, and codes at all levels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.2 – Policies and Guidelines (creating, amending, or influencing policies and guidelines at all levels)

Description:

Key enabling conditions for this strategic approach 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 these enabling conditions are in place, the first expected results are that policy and legal gaps and issues will be identified, and key stakeholders will be involved in and support the reform process. With these results 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 (additional efforts may be needed to build law enforcement capacity); increased and 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 for wildlife criminals should 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 follow.

It should be noted that other strategic approaches may also be needed to develop and maintain the political will and social trust needed to support the outcomes in this theory of change.

These could include efforts to reduce tolerance and opportunities for corruption, efforts to promote conservation leadership of decision makers, and other democracy and governance strategic approaches.

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: Percent and number of needed analyses completed that identify policy and legal gaps

Portfolio-Level Indicator: Percent and number 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 project launch, needed reforms are passed by relevant bodies.

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

Portfolio-Level Indicator: Percent and number 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 Indicator: Evidence that government entities involved with implementing improved or new laws, policies, and agreements are fulfilling their responsibilities (derived from UNODC 2009)

Evidence could include:

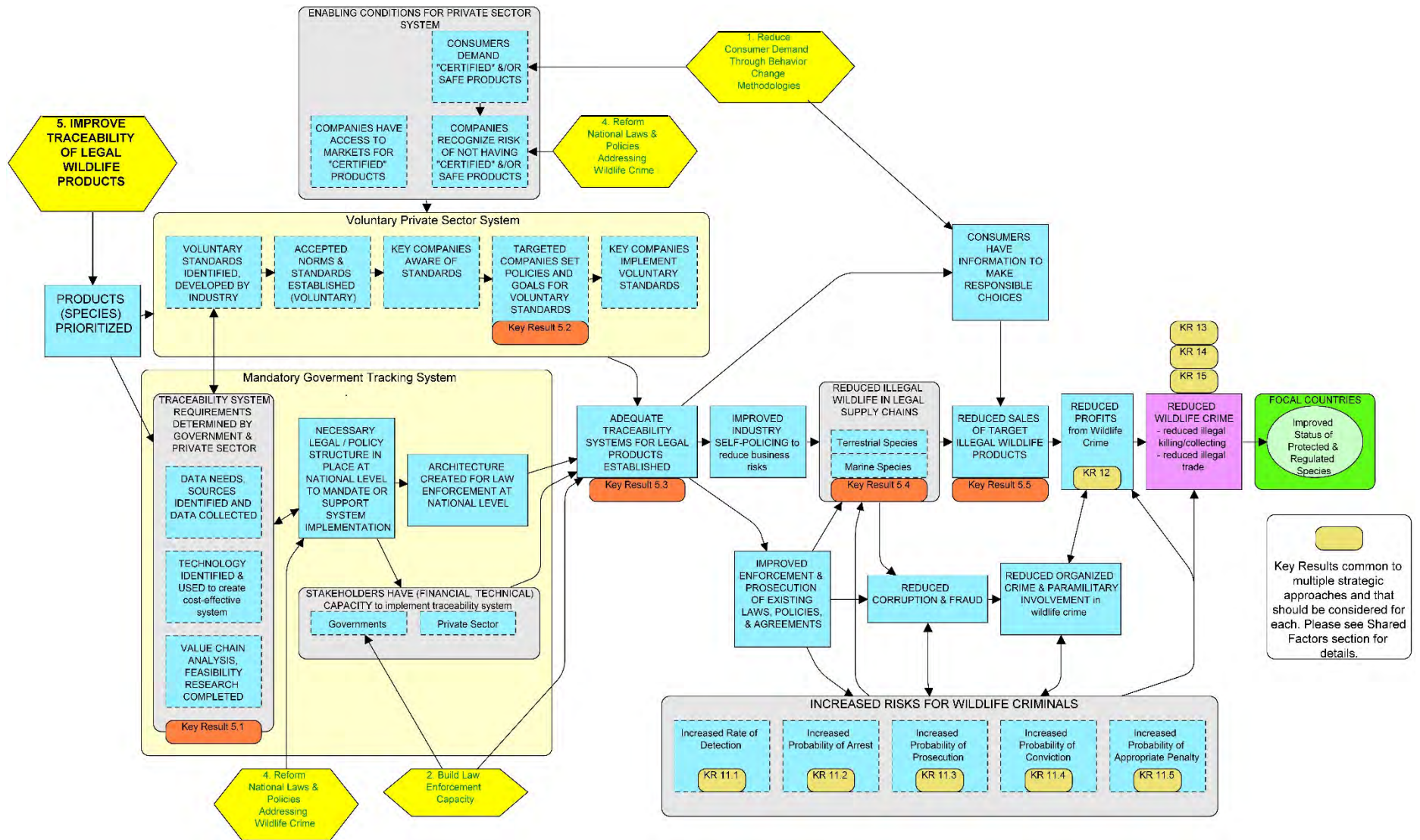
- Number of investigations and prosecutions carried out under new laws (adapted from UNODC 2009)
- Establishment of information centers on new laws, policies, agreements (USAID 2015a)
- Number of trainings in place to implement new laws, policies, and agreements
- Number of people trained to implement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

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

NOTES

STRATEGIC APPROACH 5: IMPROVE TRACEABILITY OF LEGAL WILDLIFE 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 (e.g., Marine Stewardship Council, Forest Stewardship Council, 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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Support Development and Use of Effective Technologies and Analytic Tools
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Promote Effective Partnerships
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 1. International – Port State Measures
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 10. Enforcement – Species Name and Code

- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendations 14 and 15. Traceability – Traceability Program
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 4.1 – Detection and Arrest (detecting, directly stopping, and/or deterring violations of existing laws and policies)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 5.2 – Better Products and Management Practices (developing, promoting and/or providing more environmentally-friendly products or practices that substitute for environmentally damaging ones)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 5.3 – Market-Based Incentives (using market mechanisms to change behaviors and attitudes)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.1 – Laws, Regulations, and Codes (creating, amending or influencing laws, regulations, and codes at all levels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.2 – Policies and Guidelines (creating, amending or influencing policies and guidelines at all levels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.3 – Alliance and Partnership Development (forming and facilitating partnerships, alliances, and networks of organizations)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 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)

- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 8 – Promote BMPs for Extractive Industries (setting, implementing, changing, influencing, or providing input into voluntary standards and professional codes that promote better management practices (BMPs) for extractive industries, including logging, fishing, mining, and oil and gas exploration/production)

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.

Enabling conditions for the development of a voluntary private sector system are that (1) consumers demand “certified” or safe products, (2) companies recognize the risk of not having such products, and (3) companies have access to markets for such products. Once these enabling conditions are in place, voluntary standards are identified and developed by industry in partnership with government and civil society stakeholders, with voluntary accepted norms and standards then established. This should lead key companies to set policies and implement the voluntary standards.

For the mandatory government tracking system, the first expected result is the development of the traceability system in collaboration with the private sector. This should 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 should 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 sales of illegal wildlife products and thus reduce the profits from wildlife crime. Reduced illegal wildlife in the legal supply chain will reduce sales directly but also when consumers have the information they need to make responsible choices, sales of illegal wildlife products should be reduced. Reduced sales 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 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 strategic approaches may be needed to support the results defined in this theory of change. These could include:

- Reduce consumer demand through behavior change methodologies in order to support consumer demand for certified and/or safe products;
- Support for national policy and legislative reforms in order to 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 law enforcement capacity 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 could include:

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

Portfolio-Level Indicator: Percent and number 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, X% of targeted companies have set policies and goals for voluntary standards.

Project-Level Indicator: Percent of targeted companies that have set policies and goals for voluntary standards

Portfolio-Level Indicator: Percent and number 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 Indicator: Evidence is observed that an adequate traceability system is established

Evidence could include:

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

Portfolio-Level Indicator: Number of importing and exporting countries with system in place for labelling exports of targeted products (USAID 2015a)

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 Indicators:

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

Portfolio-Level Indicator: Percent and number of projects showing reduction in percent of illegal targeted products in legal markets

Key Result 5.5

Reduced sales of target illegal wildlife products

Outcome Statement: Within XX months of project launch, target illegal wildlife product sales are reduced by X%.

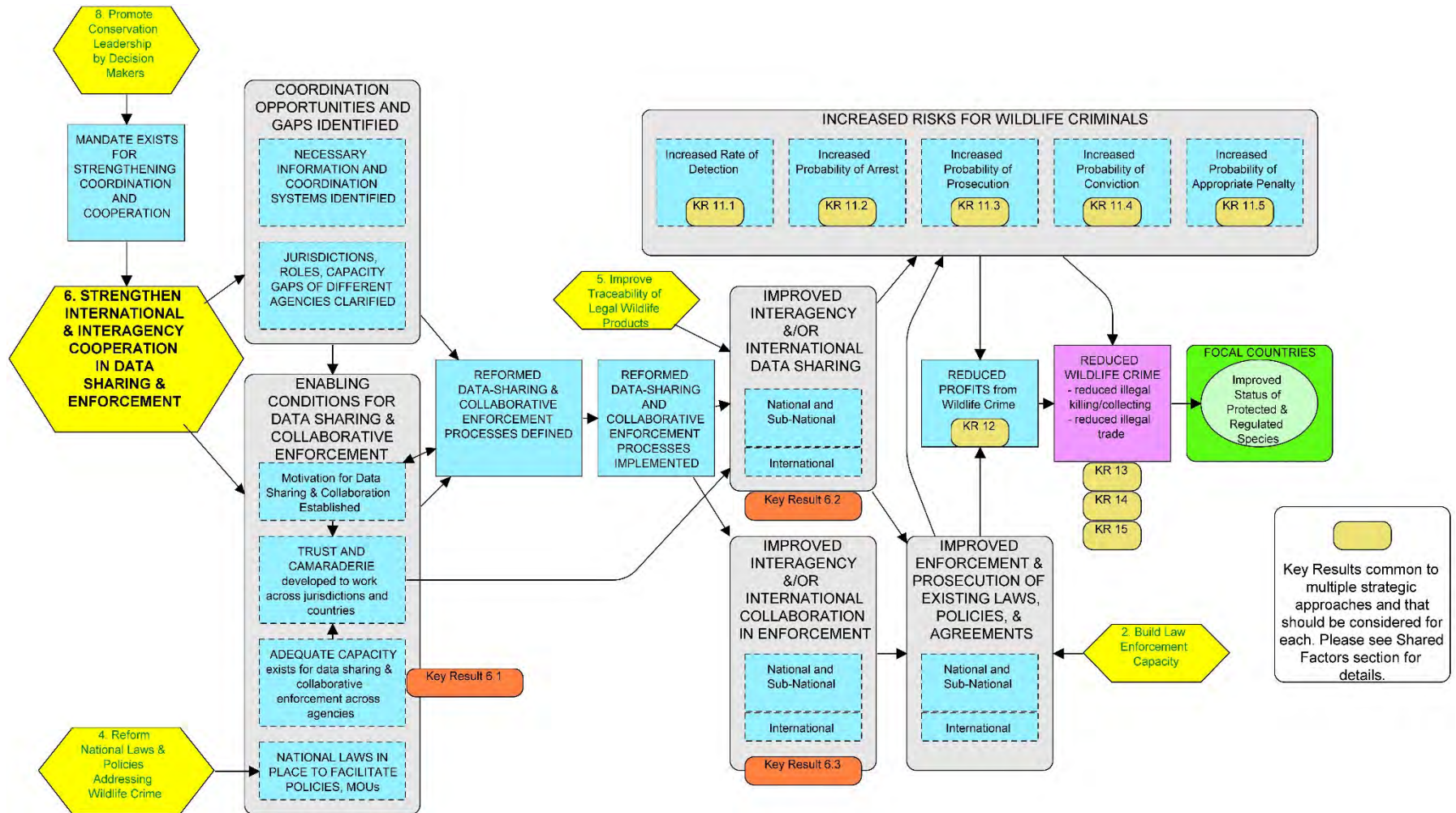
Project-Level Indicator: Percent change in sales of target illegal wildlife and wildlife products

Portfolio-Level Indicator: Percent and number of projects that show reductions in sales of target illegal wildlife products

NOTES

STRATEGIC APPROACH 6: STRENGTHEN INTERNATIONAL AND INTERAGENCY COOPERATION IN DATA SHARING AND 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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Enhance Information Sharing with International Partners
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Support the Development of an Effective Worldwide Network of Wildlife Enforcement Networks (WENs)
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 2. International – Best Practices
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 3. International – Maritime Domain Awareness
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 9. Enforcement – Customs Mutual Assistance Agreements

- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 4.1 – Detection and Arrest (detecting, directly stopping, or deterring violations of existing laws and policies)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.3 – Alliance and Partnership Development (forming and facilitating partnerships, alliances, and networks of organizations)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 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)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 4 – Wildlife Law Compliance and Enforcement (monitoring and enforcing compliance with wildlife conservation-related laws, policies and regulations, and standards and codes in the judiciary system)

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 should be defined and then implemented. Implementation of reformed data-sharing processes should improve international and 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. Reduced profits should also result directly from improved enforcement and prosecution. Increased risks and reduced profits should lead to reduced levels of wildlife crime and to improvements in the status of protected and regulated species.

Additionally, trust and camaraderie across agencies can directly lead 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 could include strategies to:

- Promote conservation leadership by decision makers to create the mandate for strengthening coordination and cooperation;
- Support national policy and legislative reform to facilitate information sharing policies and agreements;
- Improve the traceability of legal wildlife products to support improved interagency information sharing; and,
- Build law enforcement capacity to improve 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 (resources and needed competencies) exists for data sharing and collaborative enforcement across specified agencies.

Project-Level Indicators:

- a. Percent and number of specified agencies with staff time and budget dedicated to international and/or interagency data sharing and collaborative enforcement
Evidence of dedicated staff or budget could include:
 - Focal point person in place for cooperation with international and regional police organizations (UNODC 2009)
 - Central authority competent to receive and execute requests or transmit them for execution is designated (UNODC 2009)
- b. Percent and number 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. Percent and number of specified agencies with staff time and budget dedicated to international and/or interagency data sharing and collaborative enforcement (disaggregated by project/mechanism)
- b. Percent and number 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:

- 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: Percent and number 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

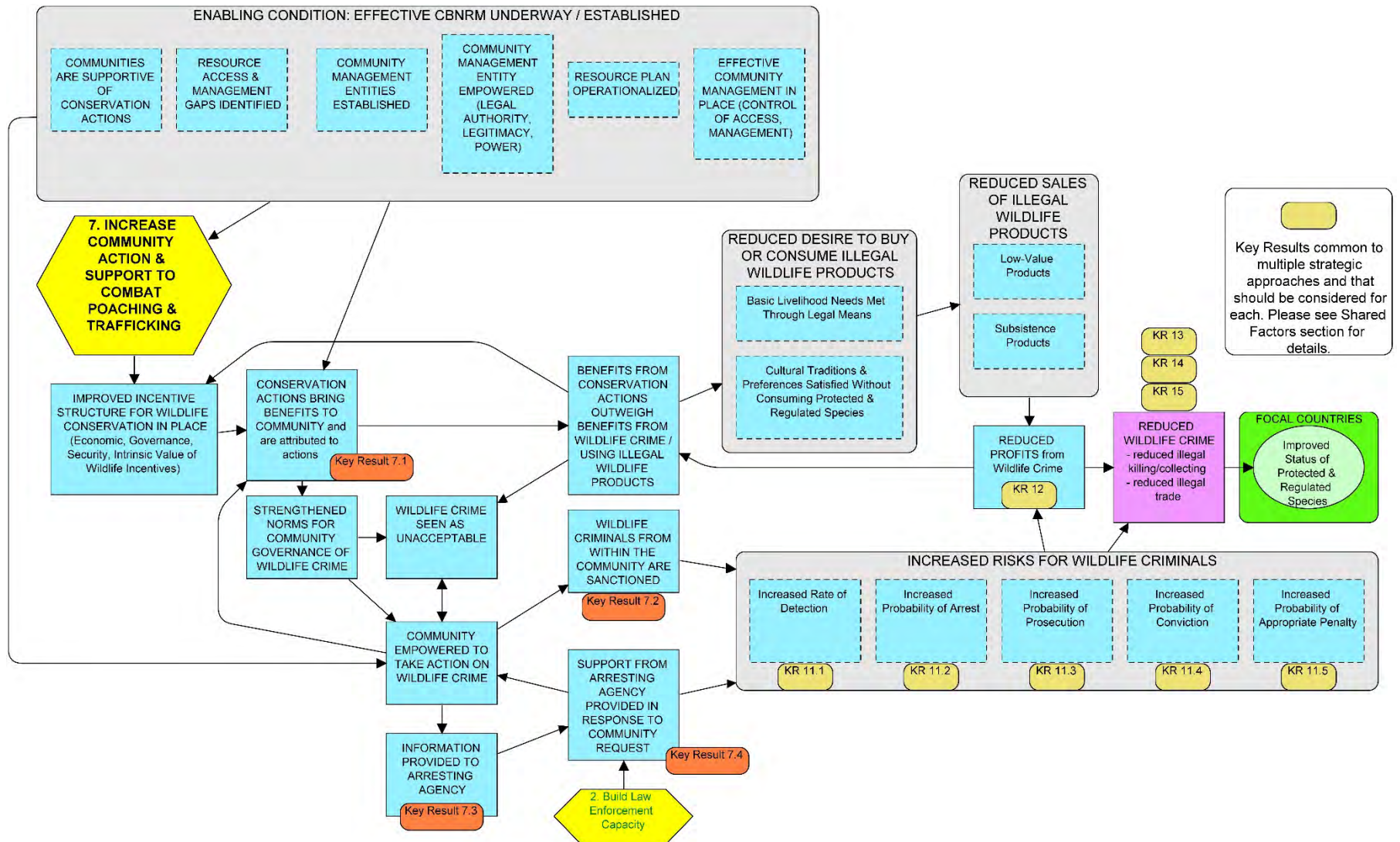
Evidence could include:

- Number 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)
- Number of requests made and executed between agencies or countries to identify, trace, freeze, or seize proceeds of crime, properties, or other instrumentalities for purposes of eventual confiscation
- Number of international and regional investigations shared among law enforcement authorities (adapted from USAID 2015a)

Portfolio-Level Indicator: Percent and number of projects where international and interagency collaboration in enforcement is occurring as intended

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

Figure 9: Results Chain for Strategic Approach 7



Definition:

Efforts to build community support and action to decrease wildlife crime and illegal activity

Examples:

- Development and support of community-based natural resource management (CBNRM) 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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Support Community-Based Wildlife Conservation
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Promote Effective Partnerships
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 5.3 – Market-Based Incentives (using market mechanisms to change behaviors and attitudes)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 5.4 – Direct Economic Incentives (using direct or indirect payments or ascribing economic value to change behaviors and attitudes)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 5.5 – Non-Monetary Values (using intangible and moral values to change behaviors and attitudes)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 10.3 – Alliance and Partnership Development (forming and facilitating partnerships, alliances, and networks of organizations)

- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 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)

USAID's [Combating Wildlife Trafficking Cross-Mission Learning Agenda](#) focuses on strategic approaches 1, 2, and 7 (USAID 2017b).

Description:

This theory of change assumes that effective CBNRM is already underway or established and that management systems are in place, including local control of access to resources.⁹ This strategic approach then aims to improve incentive structures for wildlife conservation. Incentives could be related to governance, security, personal income, or the intrinsic value of wildlife.

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 illegal wildlife products, then community members should reduce their desire to purchase or consume illegal wildlife products and sales of illegal wildlife products should be reduced. Reduced sales should lead to reduced profits from 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 should lead to wildlife crime being seen as unacceptable which, when combined with effective CBNRM, should empower communities to take action on wildlife crime. When communities are empowered, they will sanction wildlife criminals from within their community, resulting in increased risks for wildlife criminals. Community empowerment should also lead the community to provide information to arresting agencies about wildlife criminals. If the community provides information to arresting agencies, the arresting agencies should respond adequately, leading to increased risks for wildlife criminals, reduced profits from participation in wildlife crime, and then reduced wildlife crime. With reduced wildlife

crime, the status of protected and regulated species should improve.

Furthermore, adequate support from arresting agencies (when the community provides information about wildlife criminals) should reinforce and enhance community empowerment to provide further information about wildlife criminals to arresting agencies. Conversely, if adequate support is not forthcoming from arresting agencies when the community provides information, community empowerment could be undermined, resulting in less information provided to arresting agencies and a diminished perception within the community of wildlife crime as an unacceptable activity and reduced sanctions to wildlife criminals within the community. For adequate support to be provided, it may be necessary to build law enforcement capacity.

⁹ It is recommended that Standard Foreign Assistance Indicators be used to measure progress on these enabling conditions (e.g., Number of hectares of

biological significance and/or natural resources under improved natural resource management as a result of U.S. Government assistance).

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. Percent and number of community members in target area who perceive a benefit (e.g., economic, security, governance, intrinsic value of wildlife) from actions to reduce wildlife crime
- b. Percent and number of people with improved economic benefits derived from actions to reduce wildlife crime

Portfolio-Level indicator: Percent and number of projects that demonstrate community benefits from conservation actions

Key Result 7.2

Wildlife criminals from within the community are sanctioned

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

Project-Level Indicator: Percent and number of locally committed wildlife crimes leading to sanction of perpetrator by community

Portfolio-Level Indicator: Percent and number of projects that show evidence that wildlife criminals 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: Percent and number of wildlife crimes reported by community members to the appropriate authorities (disaggregated by internal or external criminals)

Portfolio-Level Indicator: Percent and number of projects that show evidence that community reporting of wildlife crime is increased (disaggregated by internal or external criminals)

Key Result 7.4

Support from arresting agency provided in response to community request

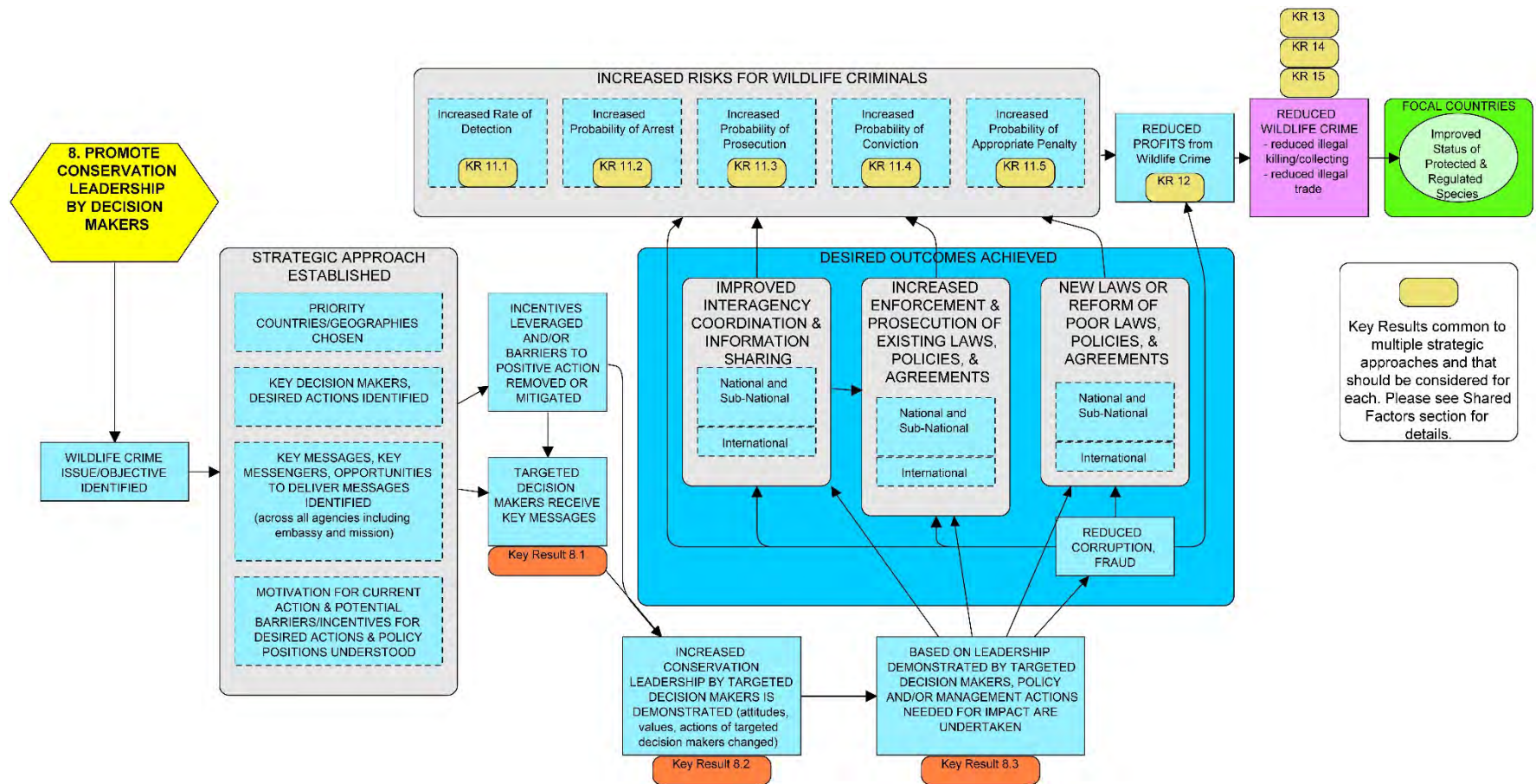
Outcome Statement: By XX, there is evidence that arresting support is being provided in response to community requests.

Project-Level Indicator: Percent and number of community requests for arresting support carried out by appropriate arresting agencies

Portfolio-Level Indicator: Percent and number of projects in which arresting support from relevant agencies is being provided

STRATEGIC APPROACH 8: PROMOTE 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, and 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 the Convention on International Trade in Endangered Species of Wild Fauna and Flora (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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Use Diplomacy to Catalyze Political Will (multilateral)
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Use Existing and Future Trade Agreements and Initiatives to Protect Wildlife
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Cooperate with Other Governments (bilateral and regional)
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Promote Effective Partnerships

- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 7. International – Diplomatic Priority
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 3.1 – Outreach and Communication (promoting desired awareness and/or emotions and subsequent behavior change by providing information to target audiences through appropriate channels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.1 – Laws, Regulations, and Codes (creating, amending or influencing laws, regulations, and codes at all levels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.2 – Policies and Guidelines (creating, amending or influencing policies and guidelines at all levels)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 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 a wildlife crime issue for which conservation leadership by decision makers is needed and the specific desired leadership actions that are needed. This result allows for the establishment of a strategic approach that includes:

- Decisions on priority countries or geographies for engagement of decision makers;
- Identification of key decision makers and desired actions;
- 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.

These results should lead to increased conservation leadership demonstrated by targeted decision makers, which should lead to implementation of the desired policy and/or management actions.

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/reform of poor laws, policies, and agreements). These outcomes should lead to increased risks for 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: Percent of targeted decision makers who receive key messages about actions or policy positions needed

Portfolio-Level Indicator: Percent and number of 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. Percent of targeted decision makers who demonstrate at least one desired action or policy position
- b. Number of desired actions and policy positions demonstrated by targeted decision makers

Portfolio-Level Indicator: Percent and number of projects which meet objectives for conservation leadership by targeted decision makers

Key Result 8.3

Based on leadership demonstrated by targeted decision makers, 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.

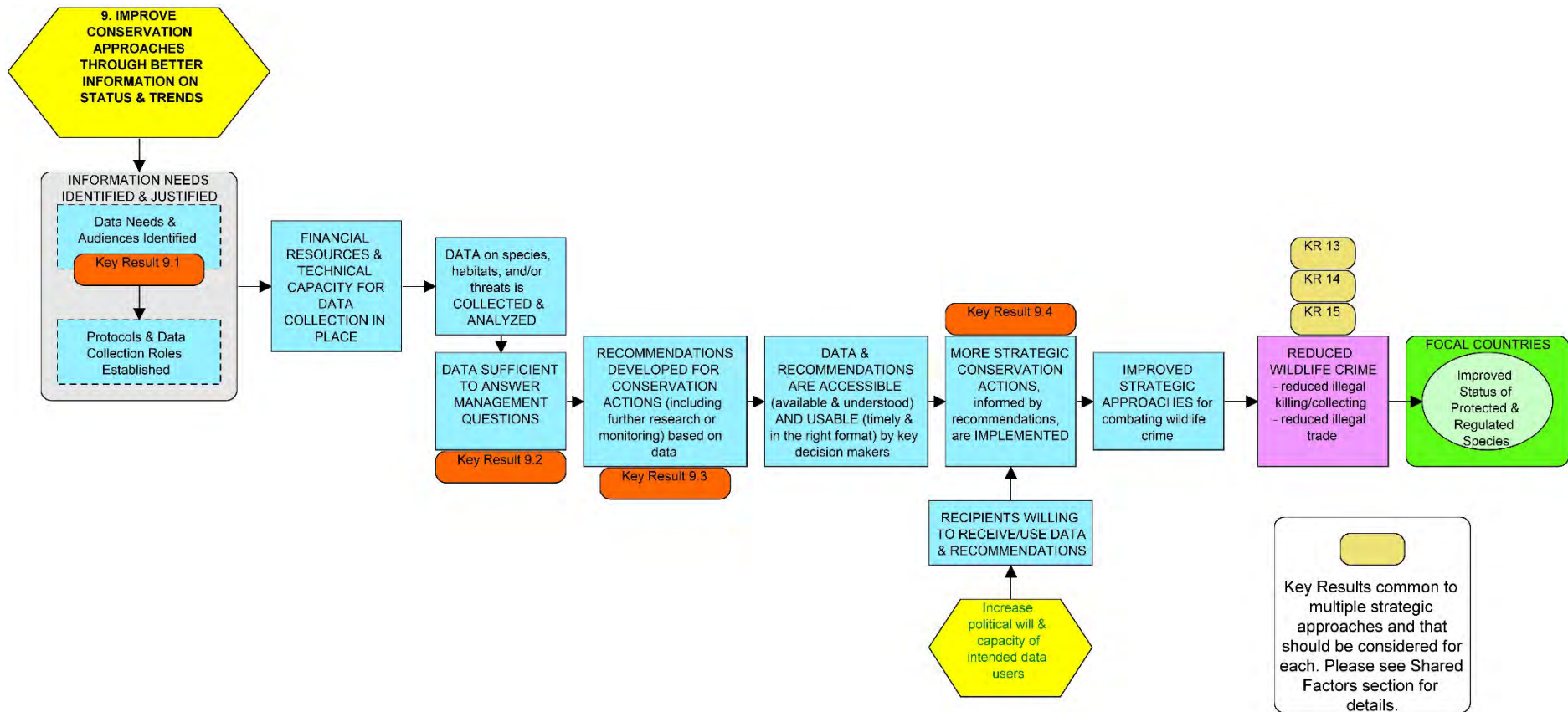
Project-Level Indicator: Number of desired policies, laws, agreements, agency procedures, and/or management actions that have been developed, improved, adopted, and/or implemented in accordance with the actions and policy positions of targeted decision makers (disaggregated by type)

Portfolio-Level Indicators:

- a. Number of 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. Percent and number 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

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

Figure 11: Results Chain for Strategic Approach 9



Definition:

Efforts to track and understand the status and trends of biodiversity threats and/or the status of biodiversity focal interests in order to adapt and improve conservation strategic approaches

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:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Support Development and Use of Effective Technologies and Analytic Tools
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Enhance Information Sharing with International Partners
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Cooperate with Other Governments (bilateral and regional)
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 3. International – Maritime Domain Awareness
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendations 14 and 15. Traceability – Traceability Program

- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 8.1 – Basic Research and Status Monitoring (collecting, managing and analyzing data and creating information about any conservation-related factors)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 8.2 – Evaluation, Effectiveness Measures, and Learning (assessing and learning about the effectiveness of conservation work)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 7 – Applied Conservation Research (research undertaken to answer management questions, including measuring the status of species, habitats, or threats to conservation targets and understanding how threats affect species and habitats. It does not include routine monitoring that should happen as part of a project to determine the effectiveness of actions taken)

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. The financial resources and technical capacity for data collection is then put in place. This should lead to the collection and analysis of data on species, habitats, and/or threats that are needed to address 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 usable and easily understood (timely and in the right format). When combined with a willingness by recipients to receive and use data and recommendations, this should lead to the implementation of more strategic conservation actions resulting in improved (more effective) strategic approaches overall for combating wildlife crime. As the strategic approaches for combating wildlife crime (the specific approaches being dependent on project context) become more effective, wildlife crime should be reduced, and ultimately the status of focal species should improve.

To achieve the results in the theory of change, additional strategic approaches may be needed, including those to increase the political will and capacity of intended data users to ensure they are willing to receive and use data and recommendations.

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: Percent and number of 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: Evidence of sufficiency of data for management decisions (determined through analysis of quality and utility of data for users)

Portfolio-Level Indicator: Percent and number 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 are developed to improve current or future conservation action.

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

Portfolio-Level Indicator: Percent and number of projects that have developed data-based recommendations to improve current or future conservation action

Key Result 9.4

More strategic conservation actions, informed by recommendations, are implemented

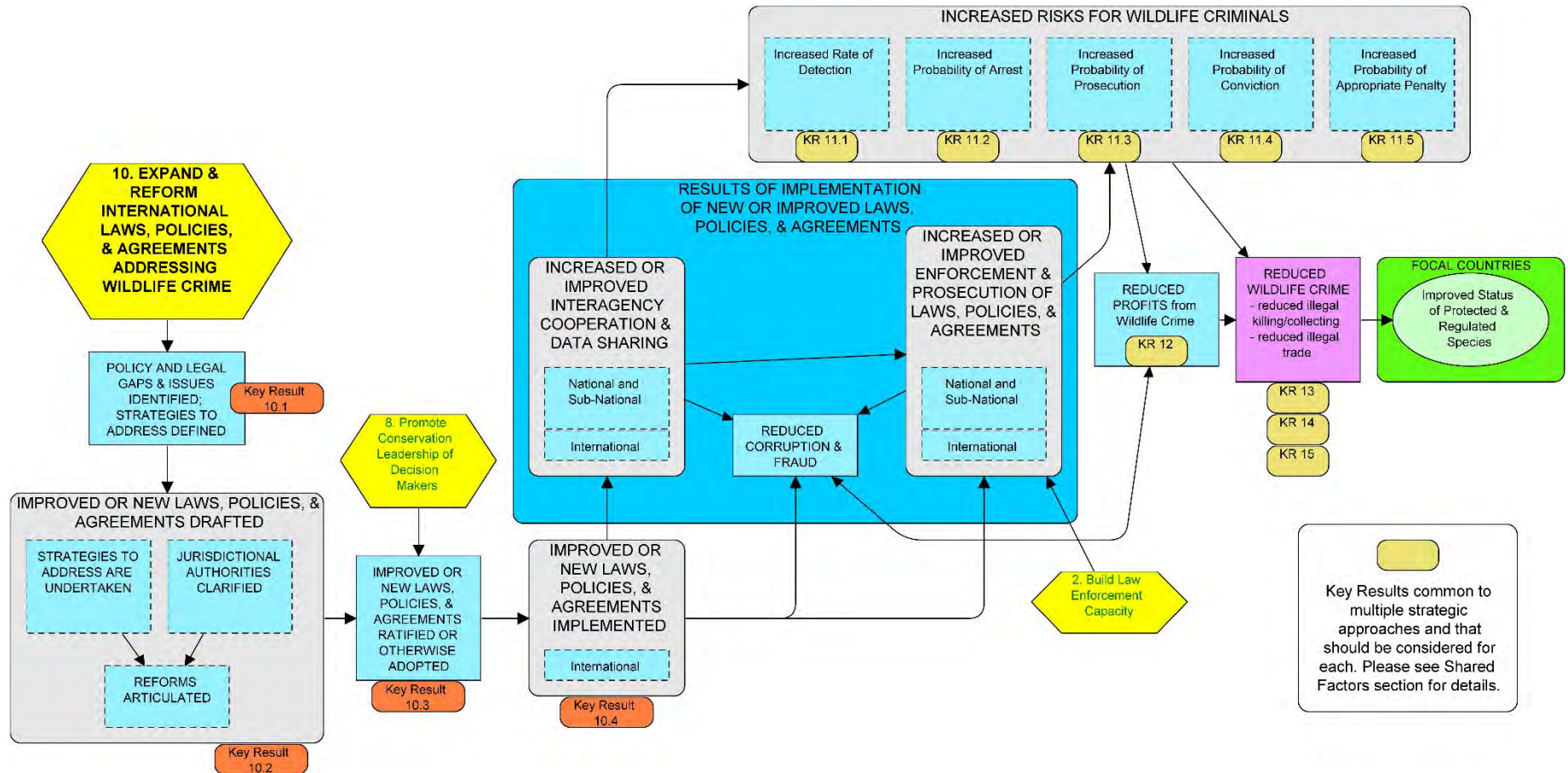
Outcome Statement: By XX, conservation actions are implemented based on data-driven recommendations.

Project-Level Indicator: Number of new or improved conservation actions implemented that have been informed by data-based recommendations

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

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

Figure 12: Results Chain for Strategic Approach 10



Definition:

The development, modification, and promotion of international laws, policies, and agreements related to wildlife crime in order to directly reduce threats or support other strategic approaches

Examples:

- Use of international forums (CITES, Convention on Biological Diversity, etc.) to modify international conventions to strengthen regulation of vulnerable wildlife products

Related to:

- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Use Diplomacy to Catalyze Political Will (multilateral)
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Strengthen International Agreements and Arrangements that Protect Wildlife
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Use Existing and Future Trade Agreements and Initiatives to Protect Wildlife
- U.S. National Strategy for Combating Wildlife Trafficking Implementation Plan (U.S. 2015a): Incorporate Provisions to Protect Wildlife in Other International Agreements
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 4. International – Free Trade Agreements
- Presidential Task Force on Combating IUU Fishing and Seafood Fraud – Action Plan (U.S. 2015b): Recommendation 5. International – Fishery Subsidies

- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.1 – Laws, Regulations, and Codes (creating, amending or influencing laws, regulations, and codes at all levels)
- CMP Conservation Actions Classification, v. 2.0 (CMP 2016): 7.2 – Policies and Guidelines (creating, amending or influencing policies and guidelines at all levels)
- USFWS Standard Measures of Effectiveness and Threats for Wildlife Conservation in Central Africa (USFWS 2014): Action 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 strategic approach in many ways mirrors Strategic Approach 4, Reform National Laws and Policies Addressing Wildlife Crime (see page 32), although in this case it has a focus on the international context. The first expected results are the identification of policy and legal gaps and issues, as well as the definition of relevant strategies to address the identified gaps and issues. Once accomplished, reforms will be drafted through the defined strategies, and jurisdictional authorities will be developed. These improved or new laws, policies, and agreements should then be ratified or adopted by relevant bodies and then implemented.

Once implemented, law and policy reforms should lead to increased or improved enforcement and prosecution of laws, policies, and agreements; increased or improved interagency cooperation and data sharing; 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 for wildlife criminals should 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 strategic approaches may be needed to achieve the outcomes in this theory of change.

These could include:

- Efforts to increase the conservation leadership of decision makers to ratify or otherwise adopt improved or new laws, policies, and agreements; and
- Efforts to build capacity for effective enforcement and prosecution of new or improved laws, policies, and agreements.

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: Percent and number of needed analyses completed that identify policy and legal gaps

Portfolio-Level Indicator: Percent and number 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: Percent and number of needed reforms addressed in draft laws, policies, and agreement

Portfolio-Level Indicator: Percent and number 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, and 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: Percent and number of needed reforms ratified or adopted

Portfolio-Level Indicator: Percent and number of projects where a defined proportion of targeted reforms have been ratified or adopted

Key Result 10.4

Improved or new laws, policies, and agreements implemented

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

Project-Level Indicator: Percent and number of needed reforms that are implemented

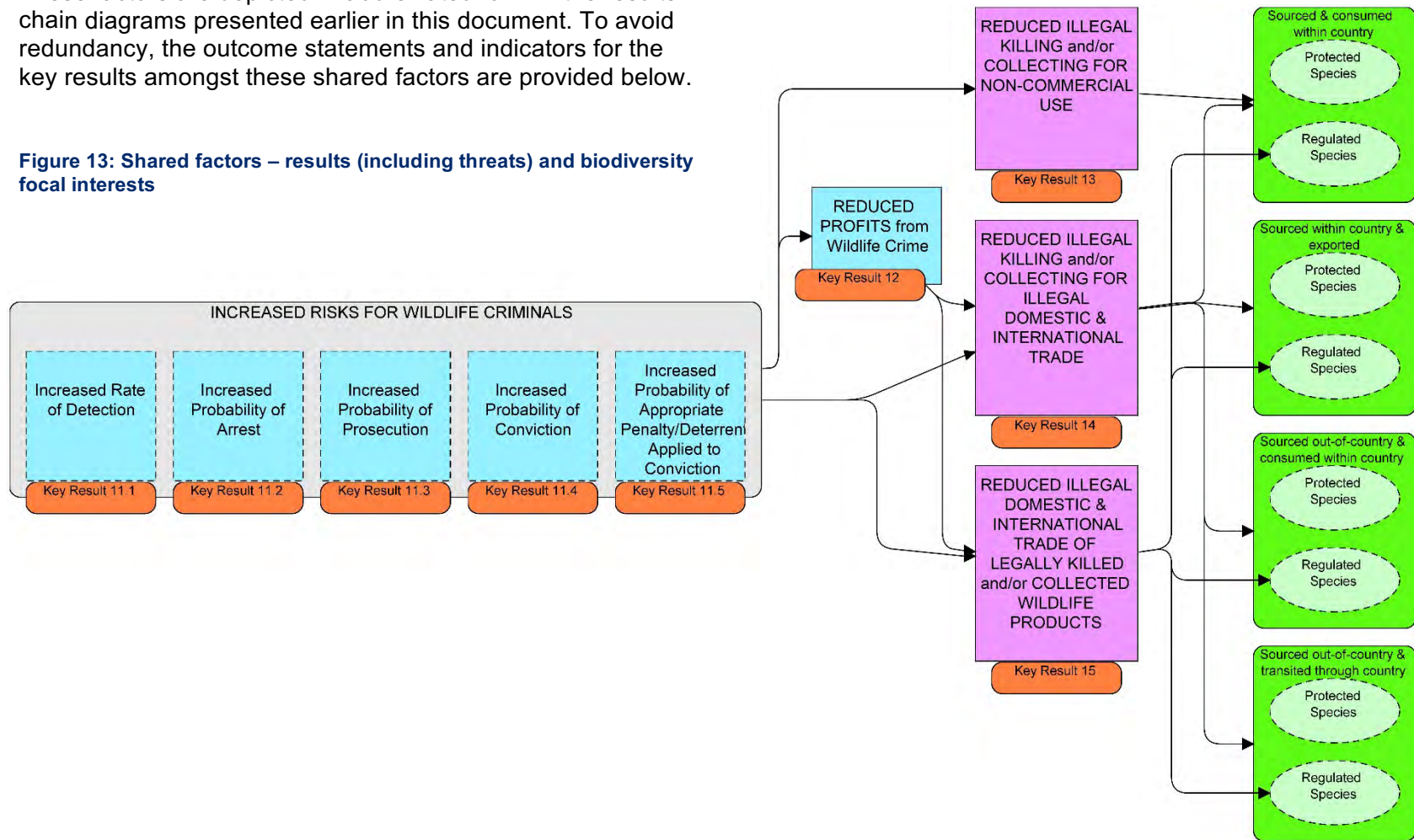
Portfolio-Level Indicator: Percent and number of projects where a defined proportion of targeted reforms have been implemented

SHARED FACTORS

The theory of change diagrams for several strategic approaches share some of the same threat reduction results, preliminary results, and/or biodiversity focal interests. These shared factors are illustrated in Figure 13.

These factors are depicted in abbreviated form in the results chain diagrams presented earlier in this document. To avoid redundancy, the outcome statements and indicators for the key results amongst these shared factors are provided below.

Figure 13: Shared factors – results (including threats) and biodiversity focal interests



Shared Key Result Group Box 11 **Increased risks for wildlife criminals**

For all candidate indicators to measure “Increased risks for wildlife criminals” (Shared Key Result Group Box 11), project monitoring/design teams should advocate for a “do no harm” principle by being cognizant of creating perverse incentives through their choice of indicator. It is likely that the data available to track these indicators is biased toward lower-level perpetrators; these are the easiest to catch and possibly convict (as opposed to middlemen and higher-level criminals and kingpins), and authorities and other partners can easily “count” these wins toward the achievement of their indicator. Thus, project teams should consider designing indicators that incentivize the capture of the largest-impact criminals. Overly criminalizing lower-level poachers can have an overall negative effect, particularly on communities, and can limit opportunity to cultivate allies in wildlife crime enforcement.

Shared Key Result 11.1 **Increased rate¹⁰ of detection**

Outcome Statement(s):

- a. By XX, increase the rate of detection of evidence of wildlife crime by X percentage points.
- b. When possible: By XX, increase the probability of detection of crime A from X to Y.

¹⁰ An indicator of “increased probability of detection” is preferred, but due to the difficulty of independently quantifying the magnitude of a specific wildlife crime activity, it may not be possible to determine “increased probability of detection.” When independent data exists on the magnitude of a specific

Project-Level Indicators:

- a. Detection rate of evidence of wildlife crime
= [# of 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
= # of detected instances of wildlife crime / total # of instances of wildlife crime (derived from Rosero 2010, Akela & Cannon 2005)

Portfolio-Level Indicators:

- a. Percent of projects showing an increased rate of detection
- b. Percent of 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 for a given suspected wildlife (or associated) crime from X to Y.

Project-Level Indicator: Probability of arrest
= # of suspected wildlife (or associated) crimes for which an arrest is made / total # of suspected wildlife (or associated) crimes for which an arrest is warranted (derived from African Development Bank 2013, Rosero 2010, Akela & Cannon 2004)

Portfolio-Level Indicator: Percent of projects showing an increased probability of arrest

wildlife crime activity (e.g., number of illegally killed elephants), both “increased rate of detection” and “increased probability of detection” should be reported.

Shared Key Result 11.3

Increased probability of prosecution

Outcome Statement: By XX, increase the probability of prosecution following arrest for a given wildlife (or associated) crime from X to Y

Project-Level Indicator: Probability of prosecution

= # arrests for wildlife (or associated) crimes that are prosecuted / total # of arrests for wildlife (or associated) crimes (derived from USFWS 2014, Rosero 2010, Akella & Cannon 2004)

Portfolio-Level Indicator: Percent of 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 for a given wildlife (or associated) crime from X to Y.

Project-Level Indicator: Probability of conviction

= # of prosecuted wildlife (or associated) crimes that result in conviction / total # of prosecuted wildlife (or associated) crimes (derived from USFWS 2014, Rosero 2010, Akella & Cannon 2004)

Portfolio-Level Indicator: Percent of projects showing an increased probability of conviction

Shared Key Result 11.5

Increased probability of appropriate¹¹ penalty/deterrent applied to conviction

Outcome Statement: By XX, increase the probability of appropriate penalty being sentenced and served following conviction for a given wildlife (or associated) crime from X to Y.

Project-Level Indicators:

- a. Probability of sentence of appropriate penalty
= # of convictions of wildlife (or associated) crimes that are appropriately sentenced / total # convictions of wildlife (or associated) crime (derived from Rosero 2010, Akella & Cannon 2004)
- b. Probability of appropriate sentences being served
= # of convictions of wildlife (or associated crimes with appropriate sentences in which sentences are fully served / total # of convictions of wildlife (or associated) crimes with appropriate sentences (derived from USFWS 2014)

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

¹¹ “Appropriate” means scaled to the severity of the crime within the bounds the law allows

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 profits¹² from wildlife crime A

Portfolio-Level Indicator: Percent and number 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: Percent and number of animals¹³ illegally killed and /or collected (disaggregated by type of data collected)

Portfolio-Level Indicator: Percent and number of projects showing decrease in number of animals illegally killed and/or collected (disaggregated by type of data collected)

¹² "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 2004 for more information.

¹³ Tracking number of animals killed illegally for non-commercial use is preferred, as it is the most direct measure of the threat of poaching for non-commercial use to the viability of populations of targeted species, but it may not be feasible for many species, so appropriate proxies for measuring poaching should be used, including: number of poachers or snares encountered or number of animals consumed in a week or a month per household.

Threat-Reduction Key Result 14

Reduced illegal killing and/or collecting for illegal domestic and international trade

Outcome Statement: By XX, reduce the illegal killing and/or collecting of wildlife product A for illegal domestic and international trade.

Project-Level Indicator: Percent and number of animals¹⁴ illegally killed and /or collected (disaggregated by type of data collected)

Portfolio-Level Indicator: Percent and number of projects showing decrease in number of animals illegally killed and/or collected for illegal domestic and international trade (disaggregated by type of data collected)

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: Percent point change in number of instances of illegal trade or transit of legally killed and/or collected wildlife products (disaggregated by project/mechanism)

Portfolio-Level Indicator: Percent of projects or mechanisms showing reduced of illegal trade or transit of legally killed and/or collected wildlife products

¹⁴ Tracking number of animals killed illegally for illegal domestic and international trade is preferred as it is the most direct measure of the threat of poaching for illegal trade to the viability of populations of targeted species, but it may not be feasible for many species, so appropriate proxies for measuring poaching should be used. Such proxies could include: number of poachers or snares encountered, number units of illegal wildlife product observed in markets, or percent of wildlife product observed in markets that are illegal.

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GLOSSARY

Biodiversity Focal Interest

An element of biodiversity (species, habitat, and/or ecosystem), within the defined scope, on which a team has chosen to focus. (USAID 2016a)

Key Result

Key results are essential to achieve in order for the assumptions behind a strategic approach to hold true. These are key results for which a design team could consider assigning outcome statements. In most cases, design teams will not (and should not) develop outcome statements for all results in a results chain. (USAID 2016c)

Outcome Statement

An outcome statement is a formal statement that defines in specific terms what a design team hopes to achieve for key results on the way to achieving the overall purpose or sub-purpose(s). Outcome statements should be directly tied to the assumptions laid out in the results chain and indicate the desired change expected. (USAID 2016c)

Results Chain

A results chain is a diagram or graphic representation of a theory of change. It is a type of logic model. (USAID 2016b)

Situation Model

A situation model is a diagram that displays the findings from a context/problem analysis in a logical, causal fashion to convey the most important direct threats and drivers affecting biodiversity focal interests. (USAID 2016a)

Theory of Change

A theory of change is a description of the logical causal relationships among a strategic approach and multiple levels of conditions or preliminary results needed to achieve a long-term result. It can be presented in text or diagrammatic form, or both. (USAID 2016b)

APPENDICES

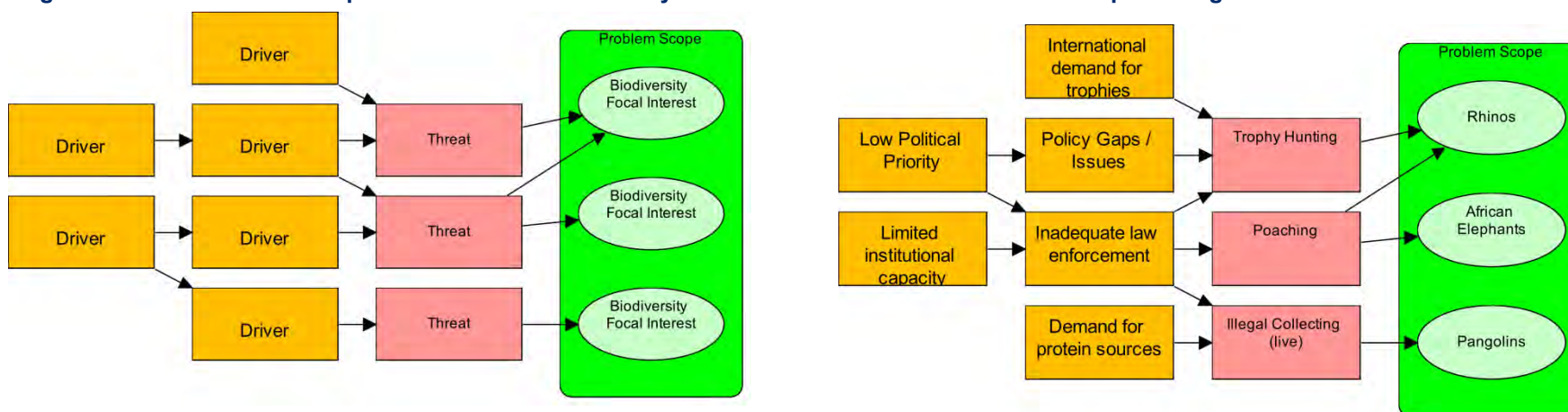
APPENDIX A: SITUATION MODELS – A PRIMER




A situation model (often called a conceptual model) is a graphic representation of a context or problem analysis. It is an easy-to-use tool that can help a program design team understand and illustrate in a logical fashion the major forces that are influencing the biodiversity of concern at a site – large or small. It is a diagram that uses a series of boxes and arrows to succinctly represent a set of observed or presumed causal relationships among factors that impact one or more biodiversity focal interests (ecosystems and/or species) (USAID 2016a).

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

Situation models use designated symbols and colors to represent a program or problem scope, threats, and biodiversity 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 a team has chosen to focus on (e.g., elephants, forests).

APPENDIX B: RESULTS CHAINS – A PRIMER

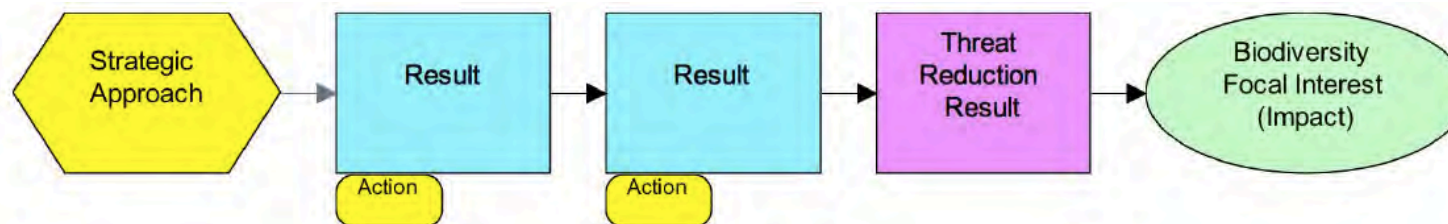
A results chain is a diagram or graphic representation of a theory of change. It is a type of logic model (USAID 2016b). More specifically, for USAID biodiversity conservation programming, a results chain can represent a team’s assumptions about how they think a specific strategic approach or approaches 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 including: (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: Basic components of a results chain



	Strategic Approach: A set of actions with a common focus that work together to achieve a series of results in a results chain.
	Result: Preliminary or short-term results needed to achieve a threat reduction result and ultimately the biodiversity focal interest impact (e.g., rangers have improved knowledge, more effective law enforcement). There can be many results in a results chain; only key results have outcome statements.
	Threat Reduction Result: The desired reduction in a specific threat that a program seeks to achieve. (e.g., decrease in illegal hunting)
	Biodiversity 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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