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PROJECT PERFORMANCE ASSESSMENT REPORT



BANGLADESH AND NEPAL  
**Strengthening Regional Cooperation  
for Wildlife Protection in Asia:**  
First Phase of the Adaptable Program Loan

**Report No. 128169**

JULY 11, 2018

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**BANGLADESH AND NEPAL**

**FIRST PHASE OF THE  
ADAPTABLE PROGRAM LOAN ON  
STRENGTHENING REGIONAL COOPERATION FOR  
WILDLIFE PROTECTION IN ASIA**

**(IDA-49090, IDA-H6660)**

**July 11, 2018**

*Financial, Private Sector, and Sustainable Development  
Independent Evaluation Group*

## Currency Equivalents (annual average)

(Exchange Rate Effective April 2018)

Currency Unit = Bangladesh Taka (Tk) Tk 1.00 = US\$0.01 US\$1.00 = Tk 84.38

Currency Unit = Nepalese Rupee (NPR) NPR 1.00 = US\$0.01 US\$1.00 = NPR 103.97

## Abbreviations and Acronyms

APL	adaptable program loan
BFD	Bangladesh Forest Department
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DNPWC	Department of National Parks and Wildlife Conservation
DOF	Department of Forests
EMP	Environmental Management Plan
GEF	Global Environment Facility
GTI	Global Tiger Initiative
ICR	Implementation Completion and Results Report
IDA	International Development Association
IEG	Independent Evaluation Group
INTERPOL	International Police Organization
IUCN	International Union for the Conservation of Nature
MOEF	Ministry of Environment and Forests
MOFSC	Ministry of Forests and Soil Conservation
M&E	monitoring and evaluation
NTNC	National Trust for Nature Conservation
NGO	nongovernmental organization
PAD	Project Appraisal Document
PCU	project coordination unit
PDO	project development objective
PMU	project management unit
PPAR	Project Performance Assessment Report
SAWEN	South Asia Wildlife Enforcement Network
SMART	Spatial Monitoring and Reporting Tool
SRCWP	Strengthening Regional Cooperation for Wildlife Protection in Asia Project
WCCB	Wildlife Crime Control Bureau
WCCU	Wildlife Crime Control Unit

FISCAL YEAR July 1 – June 30

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This report was prepared by David Colbert (consultant), who assessed the project in April 2018. The consultant was supervised by Christopher Nelson (task team leader). The report was peer reviewed by Lauren Kelly and panel reviewed by Ridley Nelson. Vibhuti Narang Khanna provided administrative support.

## Principal Ratings

	ICR*	ICR Review*	PPAR
Outcome	Moderately Satisfactory	Satisfactory	Satisfactory
Risk to Development Outcome	Moderate	High	Moderate
World Bank Performance	Moderately satisfactory	Moderately satisfactory	Moderately satisfactory
Borrower Performance	Moderately satisfactory	Moderately satisfactory	Moderately satisfactory

\* The Implementation Completion and Results (ICR) report is a self-evaluation by the responsible World Bank department. The ICR Review is an intermediate Independent Evaluation Group product that seeks to independently verify the findings of the ICR.

## Key Staff Responsible

Project	Task Manager/Leader	Practice Director	Country Director
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**IEG Mission: Improving World Bank Group development results through excellence in independent evaluation.**

**About this Report**

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20-25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate, and apply other evaluative methods as needed.

Each PPAR is subject to technical peer review, internal IEG Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank country management unit. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

**About the IEG Rating System for Public Sector Evaluations**

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: <http://ieg.worldbankgroup.org>).

**Outcome:** The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, and Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension is not applied to development policy operations, which provide general budget support. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Risk to Development Outcome:** The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.



## Preface

This Project Performance Assessment Report (PPAR) is for the wildlife conservation project, Strengthening Regional Cooperation for Wildlife Protection in Asia (SRCWP), which was implemented in Bangladesh and Nepal from 2011 to 2016. The SRCWP was approved in April 2011, financed with an International Development Association (IDA) credit of US\$36 million for Bangladesh and an IDA grant of US\$3 million for Nepal (see Appendix A for the Basic Data Sheet on the project). The project closed, as planned, in December 2016 with the bulk of project activities completed and project funds disbursed (81 percent in Bangladesh, 97 percent in Nepal). It was designed as an adaptable program loan (APL), but there was no follow-on wildlife conservation project proposed for Bangladesh or Nepal. However, Bangladesh is currently preparing a new World Bank sustainable forest project that will include support to protected areas and Nepal is planning World Bank projects to support its Forest Investment Plan.

Evaluation Rationale. The decision by the Independent Evaluation Group (IEG) to undertake this PPAR is part of a wider initiative to support continuous learning on evolving approaches towards, and measurement of, biodiversity. The PPAR was designed to contribute to the learning engagement currently underway with the Environment Global Practice by examining, among other things, how wildlife conservation benefits are measured and valued in similar projects. The two South Asia projects represent biodiversity resource management operations intended to build capacity and offer incentives to improve management of critical wildlife in three countries (Bangladesh, Bhutan, and Nepal). IEG will assess with similar projects in southern Africa.

Methods. This PPAR presents its findings and conclusions with respect to the SRCWP based on a review of the World Bank's project documentation, that is, the Project Appraisal Document (PAD), Loan Agreement, Implementation Completion and Results Report (ICR), ICR Review, and World Bank and country project records, where available. To obtain information directly from country sources, an IEG mission visited Bangladesh and Nepal in April 2018, worked with World Bank environmental staff in the country offices and met a range of key project stakeholders, including officials in the relevant national government ministries, local officials in the national parks and at other project sites, as well as representatives from community-based groups and nongovernmental organizations (NGOs) that participated in project activities (see Appendix B for a list of stakeholders met).

The contributions of the national counterparts who collaborated with the IEG mission (Dr. Tapan Dey in Bangladesh, Dr. Siddhartha Bajracharya in Nepal) and all the public officials and community stakeholders the mission met in the two countries, as well as the insights and assistance offered by the World Bank staff interviewed in Washington (Ms. Nathalie Johnson, Mr. Andrew Zakharenka) and in the two countries (Mr. Md. Istiak Sobhan in Bangladesh, Mr. Drona Raj Ghimire in Nepal) have proved invaluable to the preparation of this PPAR. The IEG mission also wants to recognize the administrative and logistical support provided by the World Bank country team, particularly Ms. Sailja Shrestha in the Kathmandu office.

Following standard IEG procedure, copies of the draft PPAR was shared with the relevant officials in the Governments of Bangladesh and Nepal for their review and comment. No comments were received from the Borrower.

## Summary

South Asia is home to 13–15 percent of the earth’s floral and faunal biodiversity, including some of its most iconic and endangered wildlife species. In recent decades, the region has experienced a rapid loss of critical natural habitats for those species, increasing poaching of wildlife, and an expanding illegal trade in wildlife and wildlife products driven largely by consumer demand in East Asia. The World Bank project, Strengthening Regional Cooperation for Wildlife Protection in Asia (SRCWP), intended to contribute to the long-term goal for the South Asia Region of stabilizing and increasing the populations and habitats of critically endangered animals (e.g. tigers, snow leopards, rhinos, and elephants). Collaboration in a regional approach to building institutional capacity for curbing the illegal wildlife trade and strengthening management of critical wildlife habitats in national protected areas was the way to achieve that long-term goal. The SRCWP was designed as the first phase of a horizontal (multi-country) adaptable program loan (APL) that, in its second phase, included a similar project in Bhutan. A separate PPAR will be prepared for the project in Bhutan.

The SRCWP’s objective was "to assist the Recipient in building and/or enhancing shared capacity, institutions, knowledge, and incentives to tackle illegal wildlife trade and other selected regional conservation threats to habitats in border areas." The SRCWP’s design had three components: (i) *capacity building* for addressing the illegal transboundary wildlife trade, including regional collaboration in combating wildlife crime through strengthened legislative/regulatory frameworks; well-equipped, specialized wildlife crime enforcement agencies; capacity building and training of staff across the enforcement agencies; and support for various other activities to advance regional wildlife conservation; (ii) *promoting wildlife conservation*, including technical assistance for expanding and disseminating knowledge and research on wildlife conservation, publishing results of pilot sub-projects, and competitive funding for sub-projects supporting conservation and management of protected areas with regional conservation benefits; and (iii) *project coordination and communication*, covering project management and coordination of national and regional activities.

Implementation of the SRCWP proceeded slowly in both countries in the initial years because of delays caused by the frequent changes in project personnel, limited technical capacity for preparing and implementing sub-projects, and inadequate capacity for performing procurement, financial management, and monitoring and evaluation (M&E) functions. Two changes in task team leader also affected World Bank supervision. Increased World Bank attention to project implementation and capacity building for procurement, financial management, and M&E eventually put the project back on track and moved it from a moderately unsatisfactory rating to moderately satisfactory in the end. The SRCWP closed as planned in both countries at the end of 2016, having completed the bulk of its planned outputs in terms of knowledge products, research efforts, staff training, and regional collaboration. It also completed construction of planned civil works, some of which were finished in the final days of project implementation. By project closing, the SRCWP had disbursed US\$31.05 million of its original US\$39.0 commitment and fully achieved its five PDOs and 23 intermediate results indicators.

The relevance of the SRCWP’s objective is rated **substantial** based more on strong international commitments the countries made to conserving biodiversity and curbing international wildlife

trade than on the World Bank's development priorities in Bangladesh and Nepal. The relevance of the project's design is rated **modest** because of the problems with the original results framework and the collapse of the APL design. The efficacy of the project in achieving its objectives is rated **substantial**. The numerous achievements of the SRCWP demonstrate that Bangladesh and Nepal have made considerable progress in building and enhancing enforcement institutions, both regional (South Asia Wildlife Enforcement Network [SAWEN]) and national (Wildlife Crime Control Unit, Wildlife Crime Control Bureau), strengthening management and technical capacity (in law enforcement agencies, protected areas, reserve forests, and national forests) and disseminating knowledge and best practices (wildlife crime database, Spatial Monitoring and Reporting Tool [SMART] patrolling) to curb the illegal wildlife trade in the region and to address regional conservation threats to habitats in common border areas. Considering that the SRCWP completed most of its objectives on time and within budget, with reasonable cost-effectiveness, the project's efficiency is rated **substantial**. The above ratings lead to an overall outcome rating of **satisfactory**. Although the sustainability of the project achievements remains uncertain, there is significant evidence in post-project achievements and financing to rate the risk to the development outcome as **moderate**.

The World Bank hastily prepared the SRCWP in 2010–11, which may explain basic project design flaws that later impeded project implementation. Those design flaws included major delays in implementing the two competitive sub-project funding programs for lack of technical capacity in both countries, delays in financial management and procurement resulting from an overestimation of required capacity in the project implementing units, and a lack of planning from the outset to ensure sustainability of project achievements. For those reasons, quality at entry is rated **moderately unsatisfactory**. The World Bank carried out its supervision responsibilities carefully, with a focus on building financial management and procurement capacity in the initial years to overcome project implementation delays. The World Bank's mid-term review and subsequent project restructuring to modify the initial results framework and reallocate proceeds after dropping one sub-component were effective in enabling the two countries to achieve the PDO despite the delays suffered at the outset of the project. In sum, the World Bank's supervision of project implementation was critical to the success of the SRCWP in both countries. For those reasons, quality of supervision is rated **satisfactory**. The overall World Bank performance is rated **moderately satisfactory** based on the moderately unsatisfactory rating for quality at entry and the satisfactory rating for supervision.

The two governments of Bangladesh and Nepal performed reasonably well. Their commitment to the SRCWP was clear since the project grew out of commitments to regional collaboration made in 2010 at the First Meeting on Illegal Wildlife Trade in South Asia in Nepal. Both governments followed through on assigning the agencies responsible for implementation of the project. They established their specialized wildlife crime enforcement agencies and adopted legislation to strengthen their legal and regulatory frameworks. In addition, the Government of Nepal has hosted the Secretariat of SAWEN since its inception in 2010 (and continues to do so) to facilitate regional collaboration on illegal wildlife trade. Government performance is rated **moderately satisfactory**. After challenges in the initial years, the implementing agencies in both countries also performed reasonably well. In Bangladesh, changes in personnel and procurement problems delayed project implementation. However, in the end, the project management unit did manage to complete all its project activities by the closing date. In Nepal, the project coordination unit (PCU) enjoyed relative stability in the initial years and capacity was

strengthened with appropriate staff training, which allowed the PCU to maintain satisfactory performance ratings during implementation of the project. Implementing agency performance is rated **moderately satisfactory**. Overall borrower performance is rated **moderately satisfactory**.

The design of the SRCWP's M&E system was plagued from the outset by problems with the indicators in the original results framework. The original PDO indicators were not appropriate for tracking all aspects of the PDO, particularly illegal wildlife crime. The M&E system improved, however, after the revisions to the results framework were made in the 2015 project restructuring, after which the M&E functioned reasonably well to project finish. Monitoring and evaluation quality is rated **modest**.

IEG's review of the SRCWP's experience suggests the following lessons:

- **Given their design and implementation challenges, regional projects focusing on global public goods require adequate preparation time to conduct a thorough analysis of participant capacities and commitments.** Because of high-level commitments made by World Bank management, the SRCWP was hastily prepared at the expense of a complete analysis of the capacities and commitments of the participating countries. This resulted in several implementation delays that later had a significant impact on project implementation and progress.
- **Regional projects aiming to pilot new approaches to collaboration on transboundary wildlife management and illegal wildlife trade require a carefully designed results framework.** Such a framework is necessary to measure and document changes in intermediate outcomes, especially regarding institutional cooperation and capacity. In the SRCWP's case, indicators at the intermediate outcome level for measuring progress and success in regional cooperation were not well thought through at the design stage and later required revision to capture progress in this area more accurately.
- **Regional projects designed to build institutions and capacity for collaboration on transboundary wildlife management and illegal wildlife trade require a long-term investment to ensure success in achieving results.** In the SRCWP's case, the World Bank's original decision to employ an APL to support regional initiatives for wildlife protection was well-advised, recognizing that this lending instrument would allow other countries interested in wildlife conservation to join the countries of South Asia and that regional capacity building to support wildlife conservation would require a follow-on set of projects. In the end, no other countries joined Bangladesh, Bhutan, and Nepal in the APL and there was no follow-on project to consolidate achievements and institutionalize regional capacities.

José Carbajo Martínez  
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# 1. Background and Context

1.1 South Asia is home to 13–15 percent of the earth’s floral and faunal biodiversity, including some of its most iconic and endangered wildlife species, such as tigers, snow leopards, one-horn rhinos, elephants, pangolins, and brown bears, all of which are on the International Union for the Conservation of Nature’s (IUCN) Red List of Threatened Species (2017). This biodiversity is extremely important to the economies and wellbeing of the people of Bangladesh and Nepal and thus to the sustainable development of these countries. Since 2000, the region has experienced a rapid loss of critical natural habitats for these species, increasing poaching of wildlife, and an expanding illegal trade in wildlife and wildlife products driven largely by consumer demand in East Asia. Yet, the ability of the governments of the South Asian countries (Bangladesh, Bhutan, India, and Nepal) to properly address these issues has been challenged by weak technical and inadequate institutional capacities. Given this situation, it became apparent that something had to be done.

1.2 The World Bank threw its weight behind wildlife conservation in South Asia in 2008, when, in partnership with the Global Environment Facility (GEF), the Smithsonian Institution, and other wildlife conservation organizations (and based on the commitment of the then-president of the World Bank), it established the Global Tiger Initiative (GTI). The GTI, led by the 13 tiger range countries, was launched as a global alliance of governments, international organizations, civil society, conservation and scientific communities, and the private sector to work together to save the wild tiger (later broadened to include the snow leopard) from extinction. Following through on its commitment, the World Bank hosted the GTI Secretariat until 2015.

1.3 The World Bank project, Strengthening Regional Cooperation for Wildlife Protection in Asia (SRCWP), grew out of commitments made by Bangladesh, Bhutan, India, and Nepal in 2010 at the First Meeting on Illegal Wildlife Trade in South Asia to address the key threats to the region’s wildlife posed by habitat degradation, poaching, and illegal wildlife trade. The meeting also established the South Asia Wildlife Enforcement Network (SAWEN), created its secretariat based in Kathmandu, and committed to joint operations, intelligence sharing, and identification of markets for illegal wildlife products. The countries committed to close collaboration in a regional approach to curbing the illegal wildlife trade, strengthening the management of their protected areas, and building technical and institutional capacity for anti-poaching patrolling, investigating and prosecuting wildlife crimes, and prohibiting illegal wildlife trade activities at their borders.

1.4 Based on discussions with the South Asian countries, the World Bank worked to prepare the SRCWP in 2011, with financing for activities to mitigate the regional public “bad” represented by the illegal wildlife trade across borders and across South Asia, as well as for related conservation activities at the national and habitat levels. The SRCWP is intended to contribute to the long-term goal for the region of stabilizing and increasing the populations and habitats of critically endangered animals in South Asia, particularly tigers, snow leopards and rhinos. The SRCWP was designed to contribute to this goal by (a) creating and operationalizing a regional institutional mechanism (SAWEN) for addressing transnational wildlife trade and

other conservation threats; (b) updating national policies and regulatory frameworks for wildlife conservation; (c) building technical and institutional capacity for curtailing the illegal transboundary trade; and (d) promoting wildlife conservation through improved habitat management, dissemination of knowledge products and best practices, launching of pilot initiatives, and regional collaboration.

## **Project Context, Dates, and Costs**

1.5 The World Bank financed the SRCWP as part of a horizontal adaptable program loan (APL). The project in Bangladesh and Nepal (P121210), representing the first phase of the APL, was approved in April 2011 and financed with an International Development Association (IDA) credit of US\$36 million and an IDA grant of US\$3 million, respectively. The project in Bhutan (P126193), in the second phase of the APL, was approved in June 2011 and was financed with an IDA credit of US\$2.25 million. There was no co-financing or leveraged funds involved with the APL. Nor was there a GEF grant. The project in India, which had originally been planned for the third phase of the APL, was dropped when India withdrew from participation in the APL. The Indian government, having recently increased its budget for wildlife protection, did not need to borrow for the purposes of the APL, but did commit to ongoing technical cooperation with the countries in the region. Despite withdrawing from the APL, India continued to collaborate with the three countries in achieving the project's objectives, including conducting a joint tiger census with Bangladesh in the Sundarbans in 2015.

## **2. Objective, Design, and their Relevance**

### **Objective**

2.1 As part of a regional APL, the SRCWP had both a regional vision defined by the APL and a project development objective defined by the project itself. These two are similar but not identical in language and import. The longer-term and broader vision of the APL was "to stabilize and, if possible, increase the population and habitats of critically endangered animals in Asia. Since wildlife and habitats cross administrative boundaries and because knowledge and capacity vary widely across and within countries, a regional approach is needed to address cross-border issues, build synergies, share skills, knowledge and experiences, and build regional collaboration for the conservation of critical habitats and ecosystems."<sup>1</sup>

2.2 The project development objective (PDO), as stated in the project's financing agreement, was "to assist the Recipient in building and/or enhancing shared capacity, institutions, knowledge, and incentives to tackle illegal wildlife trade and other selected regional conservation threats to habitats in border areas."<sup>2</sup> The PDO for the project was not revised during project implementation, but there were two restructurings of the project, one in February 2014 and one in December 2015. The latter resulted in revisions to the project's results framework involving changes to PDO indicators and intermediate outcome indicators and targets.

## Relevance of Objective

2.3 While there is general agreement and support among government officials the IEG mission met in both Bangladesh and Nepal for the broader vision of the APL and the specific PDO of the SRCWP, the relevance of these objectives to national and World Bank priorities is not immediately clear. The project's objective was certainly relevant to the commitments the countries had made under the pertinent international biodiversity conservation conventions to which both countries are signatories—the Convention on Biological Diversity (1992), the Convention on International Trade in Endangered Species (1981) and the Convention on Wetlands of International Importance (1971). And, it was highly relevant to the commitments made at the First Meeting on Illegal Wildlife Trade in South Asia (2010), which established SAWEN as the regional mechanism for closer collaboration on illegal wildlife trade among the countries and laid the foundation for the support later provided by the SRCWP. On the other hand, the relevance of the project objective to the World Bank's priorities, in terms of its alignment with priorities set out in the Country Partnership Framework (FY 2016-2020) in Bangladesh and the Country Partnership Strategy (FY 2014-2018) in Nepal, is not as explicit. Although both World Bank documents addressed climate change and environmental management issues to some extent, neither explicitly prioritized biodiversity conservation or wildlife protection as such. In the end, however, the relevance of the objective is consistent with the World Bank's commitment to the sustainable development of these countries, in which biodiversity conservation and wildlife protection play a more important role than in other countries. A more fundamental question for the relevance of the PDO is its alignment with the long-term vision of the APL and whether the PDO can, incrementally over time, ever achieve the aim of the APL. This question is all the more pressing given the intractable nature of the illegal wildlife trade in South Asia. Focusing on the PDO in and of itself and considering the strong international commitments the countries had made to conserving biodiversity and curbing wildlife trade, the relevance of the objective is rated **substantial**.

## Design

### COMPONENTS

2.4 The SRCWP had three components that served to address the various elements of the APL's vision (stabilize and increase wildlife populations and habitats, build synergies and regional collaboration for wildlife conservation) and the project's PDO (build and enhance capacity, institutions, knowledge, and incentives to address illegal wildlife trade and other threats to habitats in border areas), as follows:

- **Component 1—Capacity Building for Addressing the Illegal Transboundary Wildlife Trade** (Expected total: US\$9.2 million—Bangladesh US\$8.3 million and Nepal US\$0.9 million; actual total: US\$11.7 million—Bangladesh US\$10.7 million and Nepal US\$1.0 million): included regional harmonization and collaboration in combating wildlife crime through strengthened legislative/regulatory frameworks; well-equipped, specialized wildlife crime enforcement agencies; capacity building and training of staff across the

enforcement agencies aimed at regional collaboration, as well as support for various other activities to advance regional wildlife conservation;

- **Component 2—Promoting Wildlife Conservation in Asia** (Expected total: US\$25.1 million—Bangladesh US\$ 23.5 million and Nepal US\$1.6 million; actual total: US\$14.72 million—Bangladesh US\$13.0 million and Nepal US\$1.72 million): included technical assistance for expanding and disseminating knowledge and research in wildlife conservation, publishing results of pilot sub-projects, and competitive funding for sub-projects supporting conservation and management of protected areas, reserve forests , and national forests with regional conservation benefits; and
- **Component 3—Project Coordination and Communication** (Expected total: US\$4.8 million—Bangladesh US\$4.6 million and Nepal US\$0.2 million; actual total: US\$5.70 million—Bangladesh US\$5.5 and Nepal US\$0.20 million): covered project management and coordination of national and regional activities.

## Relevance of Design

2.5 The above components were designed by the project team to support a two-pronged approach to achieving project objectives: (a) first, build capacity to address the illegal wildlife trade through regional cooperation and (b) second, protect and manage habitats to generate regional conservation benefits and support conservation of targeted species, including tigers, snow leopards, rhinos, and elephants. This meant that implementation of specific project components and sub-components would be carried out in a sequential manner, prioritizing capacity building, followed by investments in protected areas and other wildlife habitats to improve management of connected habitats and targeted species. This approach appears sound and the project components, with their corresponding activities and intended outputs, support a logical chain linking them to achievement of intermediate outputs and outcomes. In the end, implementation occurred in a sequential manner, if not by design, by the fact that operationalizing the component funding sub-project investments in protected areas and other habitats took longer than anticipated.

2.6 The PDO was not changed, but revisions were made to the original results framework in a Level 2 restructuring in 2015. At that point, it became clear that the original PDO indicators did not adequately measure progress in achieving the PDO. As a result of the restructuring, for example, the first PDO indicator was revised from “progress toward the development of sustainable regional mechanisms” to “a regional mechanism is developed and operational” (namely SAWEN). The third PDO indicator was revised from “agreement among the enforcement agencies on at least two regional protocols” to “wildlife crime control institutions established in the three participating countries.” In each case, the original PDO indicator was revised (or dropped) and replaced with a more concrete, measurable indicator. And, at the request of the countries, the individual country-level intermediate outcome indicators were changed. These changes provided better measurement of project performance at the regional and country levels and better tracking of PDO achievement.

2.7 The project preparation team’s decision to undertake an APL to support regional initiatives for wildlife protection was well-advised, recognizing that this instrument would allow



other countries interested in wildlife conservation to join the South Asian countries and that regional capacity building to support wildlife conservation would require more than a one-project, five-year commitment to be sustainable. The potential presented by the APL design, however, was not realized. Other than Bhutan, none of the other tiger range countries chose to join the South Asian countries in the APL. IEG was unable to determine why this was the case. Furthermore, the World Bank chose not to complement the initial projects in the APL with another operation to consolidate achievements and institutionalize regional capacities. IEG learned, however, that the World Bank is working with Bangladesh to prepare a large sustainable forest project that will include support to protected areas and will build on the lessons and capacity created under the SRCWP. In the case of Nepal, IEG learned that the World Bank is planning to support its Forest Investment Plan with tourism and forest projects, while in Bhutan the World Bank is in consultations on possible follow-on activities. Finally, at the regional level, the World Bank is discussing a region-wide forest landscapes program with the countries in the region that share a common forest landscape. This is intended to integrate the issues of wildlife governance and landscape management into the region's broader development priorities.

2.8 Given the problems with the original results framework and the collapse of the APL design, the relevance of the design is rated **modest**.

### 3. Implementation

3.1 Implementation of the SRCWP proceeded slowly in both countries in the initial years. The IEG mission discussed the factors contributing to the delays in implementation with former and current project staff. In Bangladesh, delays were blamed, in part, on the frequent changes of project directors (four), some the result of political interference at the ministerial level. Limited technical capacity delayed approval and implementation of the sub-projects financed by the SRCWP. In Nepal, project leadership was more stable, but the lack of technical capacity among NGOs and other organizations hindered the preparation of proposals for competitive sub-project financing and delayed the sub-project program. In both countries, inadequate technical capacity slowed procurement, financial management, and monitoring and evaluation. World Bank supervision was also affected by two changes in task team leadership.

3.2 At the regional level, once SAWEN had been established, the SRCWP assisted with its staffing, funding and initial regional activities. SAWEN began organizing its annual inter-governmental meetings to promote collaboration among member countries on curbing illegal wildlife trade, building regional capacity for wildlife law enforcement in the new specialized national enforcement agencies and the wider enforcement network, and disseminating information on wildlife enforcement to all the member countries. SAWEN quickly assumed its role as the regional platform for facilitating and strengthening wildlife law enforcement in South Asia.

3.3 A combination of increased World Bank attention to project implementation and a project restructuring that revised the results framework and clarified the implementation schedule gradually moved the project from several years of moderately unsatisfactory ratings to moderately satisfactory in the end. The SRCWP closed as planned in both countries at the end of

2016, having completed the bulk of its planned outputs in terms of knowledge products, research efforts, staff training, and regional collaboration (SAWEN adopted and ratified). It also completed construction of planned civil works (e.g. guard posts in protected areas in Nepal, ecotourism infrastructure in Bangladesh), some of which were finished just under the wire (i.e. the Bangladesh Wildlife Centre). As the ICR notes, by project close the SRCWP had disbursed US\$31.05 million of its original US\$39.0 commitment and fully met or achieved the five PDOs and 23 intermediate results indicators in the two countries.

## Planned versus Actual Expenditure, by Component

3.4 The SRCWP disbursed the bulk of its funds by project close. Table 3.1 shows that the aggregated totals of actual expenditures for most of the project components exceeded the appraisal estimates, the exception being Component 2 in Bangladesh.

**Table 3.1. Planned versus Actual Expenditure, by Component**

Component	Appraisal Estimate*	Actual Expenditure*	Percentage of Appraisal
<b>Bangladesh</b>			
1. Capacity Building for Addressing the Illegal Transboundary Wildlife Trade	8.30	10.7	129
2. Promoting Wildlife Conservation in Asia	23.50	13.0	55
3. Project Coordination and Communication	4.60	5.5	119
<b>Total baseline expenditures</b>	<b>36.40</b>	<b>29.2</b>	<b>81</b>
Price contingencies	2.60		
<b>Total project expenditures</b>	<b>39.00</b>	<b>29.2</b>	
<b>Nepal</b>			
1. Capacity Building for Addressing the Illegal Transboundary Wildlife Trade	0.90	1.0	111
2. Promoting Wildlife Conservation in Asia	1.60	1.72	107
3. Project Coordination and Communication	0.20	0.20	100
<b>Total baseline expenditures</b>	<b>2.70</b>	<b>2.92</b>	
Price contingencies	0.30		
<b>Total project expenditures</b>	<b>3.00</b>	<b>2.92</b>	<b>97</b>

\* US\$, millions.

## Safeguards Compliance

3.5 The SRCWP was classified as Environmental Category B, triggering the World Bank's safeguard policies for Environmental Assessment, Natural Habitats, Forests, Indigenous Peoples, and Involuntary Resettlement. There were no changes to the safeguards category and the ICR reported no environmental or social safeguards issues during project implementation. The SRCWP handled the safeguard policies as follows.

3.6 Environmental Assessment (OP/BP 4.01). The SRCWP was expected to produce positive environmental impacts in promoting conservation and management of critical ecosystems for wildlife and their habitats, but it was classified as Category B because it included construction of minor civil works in areas of high ecological sensitivity, which might involve potential adverse impacts. For this reason, the two governments prepared site-specific environmental management plans (EMPs) and held public consultations on them. In addition, the project complied fully with the environmental assessment regulations of the two borrowers.

3.7 Natural Habitats (OP/BP 4.04) and Forests (OP/BP 4.36). The sensitivity of the natural ecosystems (protected areas, reserve forests, and national forests) in the participating countries triggered both of these policies. To address this issue, management plans for the protected areas prepared under the SRCWP underwent appropriate review and environmental screening. The IEG mission reviewed several protected area management plans in both countries and found them well prepared, technically sound, and thorough. The one concern regarding ecotourism interventions in the Nijhum Dwip National Park in Bangladesh was ultimately resolved by the Bangladesh Forest Department (BFD).

3.8 Indigenous Peoples (OP/BP 4.10) and Involuntary Resettlement (OP/BP 4.12). The SRCWP involved neither land acquisition nor resettlement of local populations. To address any potential livelihood impacts associated with project activities, the SRCWP held regular community consultations on the planning, design, and implementation of the activities. And, the project prepared the documentation, as required by these safeguard policies to ensure compliance. Project interventions addressing human-wildlife conflicts, in particular, benefited from close consultations with the affected local communities. The IEG mission attended one community consultation in Jhapa, Nepal, near the site where electric fencing installed by the project to control elephant destruction had remarkable results in terms of protecting human life and safeguarding agricultural production. The mission received effusive positive feedback from community members who described, in detail, the improvements the electric fences had provided.

## **Financial Management and Procurement**

3.9 World Bank supervision missions periodically reviewed SRCWP financial management operations in both countries. Throughout the life of the project, financial management presented a bigger challenge for Bangladesh than for Nepal. In Bangladesh, inadequate financial planning procedures and internal controls over payments, lax monitoring of procurement actions, and insufficient documentation plagued project implementation from project start to close. As a result, the ISRs considered the financial management arrangements in Bangladesh moderately unsatisfactory. In contrast, in Nepal, the qualified and adequate financial management staff, following the Operations Manual, established a system that ensured proper financial planning and reporting, as well as regular monitoring and auditing. Nepal's financial management consistently performed satisfactorily from project start to project close. As a result, the ISRs found financial management in Nepal satisfactory.

3.10 Procurement under the SRCWP, to a large extent, mirrored the story with financial management in the two countries. That is, procurement represented a bigger challenge for Bangladesh than for Nepal. The World Bank ensured that the project teams in both countries received training on procurement under World Bank guidelines early in project implementation. But, by the mid-term review, the World Bank determined that there remained inadequate procurement capacity in Bangladesh and inordinate delays in Nepal, which the World Bank found moderately satisfactory. Procurement issues continued to challenge Bangladesh, but Nepal made improvements in its procurement. In the end, the ISRs found them moderately satisfactory and satisfactory, respectively.

## 4. Achievement of the Objective

4.1 Vision of the APL—Stabilize and, if possible, increase the population and habitats of critically endangered animals in Asia. Since wildlife and habitats cross administrative boundaries and because knowledge and capacity vary widely across and within countries, a regional approach is needed to address cross-border issues; build synergies; share skills, knowledge, and experiences; and build regional collaboration for the conservation of critical habitats and ecosystems. (The vision of the APL is aspirational and efficacy in achieving it is not being evaluated in this PPAR.)

4.2 PDO of SRCWP—Assist the recipient in building or enhancing shared capacity, institutions, knowledge, and incentives to tackle illegal wildlife trade and other selected regional conservation threats to habitats in border areas. (This PPAR evaluates the project's efficacy in achieving the PDO.)

4.3 The SRCWP's PDO specifies a series of intermediate outcomes (capacity, institutions, knowledge, and incentives) that lead to achievement of the two-part objective (the first sub-objective targeting illegal wildlife trade, the second regional conservation threats to habitats in border areas). Following this structure, this PPAR evaluates project achievements for each of the intermediate outcomes of the PDO for their contribution to achievement of the two sub-objectives. In some cases, for example, capacity building and knowledge dissemination, the achievements for different intermediate outcomes may contribute to both sub-objectives. In other cases, for example, institutions and incentives, the contributions to sub-objectives are more clearly delineated. In any case, the SRCWP's achievements are numerous and, in some cases, impressive; their contributions to achievement of the project's objectives are significant. Thus, this PPAR rates the achievement of project objectives **substantial**.

4.4 **First Sub-objective—Building or enhancing shared capacity, institutions, knowledge, and incentives to tackle illegal wildlife trade.** The SRCWP's singular achievements for meeting this sub-objective are the intermediate outcomes establishing and operationalizing the regional enforcement network, SAWEN, and building and enhancing the national wildlife crime enforcement agencies (institutions and shared capacity). The new wildlife crime enforcement institutions undertook an intermediate outcome in collection and dissemination of data on wildlife crimes through SAWEN (knowledge). These achievements are further supported by the intermediate outcome of strengthening of the legal and regulatory

frameworks in both countries to increase penalties and facilitate interdiction of illegal wildlife trade (incentives). The following elaborates on these achievements:

4.5 SAWEN established and operationalized: As noted in paragraph 1.3, SAWEN grew out of the First Meeting on Illegal Wildlife Trade in South Asia, which was held in 2010 in Kathmandu, Nepal, to discuss how to work better together to effectively contain illegal wildlife trade, bring poachers and smugglers to justice, and rescue animals when seized. The five South Asian countries endorsed SAWEN, established its secretariat in Kathmandu, and later adopted its organizational statute. In creating SAWEN, the countries committed to joint operations, intelligence sharing and identification of markets for illegal wildlife products. SAWEN is now the official inter-governmental agency promoting regional cooperation in tackling the burgeoning, transnational wildlife trade and crime in South Asia. It is the only inter-governmental mechanism in the region addressing the trans-boundary issues of illegal wildlife trade and, as such, uses its position to host annual inter-governmental meetings of the member countries (most recently, September 2017 and May 2018) to share experiences in combating wildlife crime, foster capacity building for member countries on wildlife crime investigation and enforcement (two-day workshops accompanying the inter-governmental meetings), and facilitate the dissemination of data on the illegal wildlife trade across the region. SAWEN's inter-governmental meetings are regularly attended by a number of its international donors, for example, The World Wildlife Fund, and the U.S. Agency for International Development, and law enforcement partners, for example, The International Police Organization (INTERPOL), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the United Nations Office on Drugs and Crime). SAWEN and the INTERPOL Environmental Security Programme organized a Regional Investigative Meeting on Wildlife Crime in May 2018. According to its 2015 Retrospective Report (2011-2014),<sup>3</sup> SAWEN has developed an action plan for the next five years specifying the activities to be implemented through the secretariat. Among the activities included in the action plan are: (i) capacity building to strengthen wildlife law enforcement capacity in its member countries, (ii) enhanced communication among the member countries and the wider enforcement communities, (iii) a wildlife crime database management information system (WCD MIS) to efficiently collect, organize, and disseminate wildlife crime data (allowing systematic analysis and knowledge- and intelligence-sharing to improve law enforcement), and (iv) additional resource mobilization to secure funding for the secretariat's activities in the future.

4.6 In the IEG mission's discussions on illegal wildlife trade in the region, government officials, NGO representatives, and others made it clear that SAWEN represented a major step forward in harmonizing and strengthening wildlife crime enforcement among member countries. It appears that SAWEN filled an important gap in collaboration efforts among small South Asian countries in addressing wildlife crime. The IEG mission also met with the environment officer in the SAWEN Secretariat during its meetings at the Department of Forests in Kathmandu. After the SRCWP closed in 2016, SAWEN continued to function with the same number of staff (a chief enforcement coordinator and four professional staff), disseminating the latest information on wildlife crime and hosting its most recent inter-governmental meeting in Kolkata in May 2018. SAWEN receives its budget from an endowment fund established by the Government of Nepal, based on commitments from the Government of Nepal (US\$100,000) and the Government of India (US\$500,000). In addition, SAWEN currently receives around US\$21,000

per year from the Government of Nepal for operating expenses. SAWEN officials anticipate securing regular financing commitments from the member governments in the future.

#### 4.7 Specialized national wildlife law enforcement institutions created and operationalized:

Both countries established specialized wildlife enforcement agencies, i.e. the Wildlife Crime Control Unit (WCCU) in Bangladesh and the Wildlife Crime Control Bureau (WCCB) in Nepal, at the national and subnational levels, to surveil and enforce against wildlife crimes. In Bangladesh, creation of the WCCU, with 20 enforcement officers, was part of a larger institutional reorganization involving the creation of a new Wildlife and Nature Conservation Wing within the BFD. In Nepal, the central WCCB is complemented by 22 WCCB field units in 24 wildlife-crime prone districts. These agencies, both of which received law enforcement training under the SRCWP (180 staff in the WCCU and BFD, 161 in the WCCB and Ministry of Environment and Forests [MOEF]) contribute to building or enhancing institutions and capacity to monitor and interdict illegal wildlife trade.

4.8 The IEG mission met with enforcement officials in the WCCU and WCCB to discuss their crime control operations, both during and after the SRCWP. The WCCU collaborates with a number of other enforcement agencies in Bangladesh in carrying out its functions (e.g. INTERPOL, Rapid Action Battalion, Bangladesh Police, Border Guards, Coast Guard, and Customs Intelligence). But efforts to establish a Wildlife Crime Task Force with these enforcement agencies have yet to be realized. In Nepal, the WCCB has a similar enforcement network, including 8,000 soldiers from the Nepalese Army. According to the WCCB's annual report on wildlife crime in Nepal for 2017-2018, more than 45 legal cases for poaching and illegal trade of animal parts (leopard skins, bears, deer, pangolins, red pandas, etc.) were filed and 110 wild animals were rescued and released. The IEG mission was unable to obtain a comparable report from the WCCU in Bangladesh, but the limited data available for Bangladesh for the years 2012 and 2015 indicate an increase in the number of arrests and the number of cases successfully prosecuted.<sup>4</sup> Unfortunately, no data are available in either country for making comparisons between wildlife crime enforcement before and after the SRCWP, but the actual existence and regional data sharing on wildlife crime post-project are significant achievements in themselves.

4.9 Data on wildlife crime collected and disseminated: SAWEN and the national wildlife crime enforcement institutions recognized the value of collecting and disseminating wildlife crime data to understanding the nature of the illegal wildlife trade in the region. As indicated earlier, SAWEN developed WCD MIS to gather and organize data on wildlife crime. In Bangladesh, the WCCU installed a web-based Wildlife Crime Database to help identify wildlife crime "hot spots" in the country. To gather the data, the WCCU developed a network of informants in key zones, using social media to alert and inform BFD officers. It has also set up a hotline and Facebook page for reporting information on wildlife crime. The WCCU trained 240 people in the use of the database, which enables the WCCU to use the database to monitor illegal activities, discern patterns, and identify critical areas of wildlife crime. Related to this effort, the Government of Bangladesh also established a forensic laboratory to assist the WCCU in legal proceedings. The lab was fully equipped with three laboratory technicians trained in the operation and use of the equipment as well as in relevant protocols for the handling of evidence.

The Government of Bangladesh notes that this forensic lab is one of only three in the world devoted to combatting illegal wildlife trade (the others are located in the United States and India). In Nepal, in a similar effort, the SRCWP enhanced laboratory facilities and provided training for the National Forensic Science Laboratory and Nepal Academy of Science and Technology.

4.10 Legal/regulatory frameworks strengthened: Both countries made advances in strengthening their wildlife protection laws and regulations. Bangladesh adopted a new Wildlife (Conservation and Security) Act in 2012 that included provisions for protecting wild animals and plants, prohibiting their import and export without a CITES certificate and license, and establishing penalties (including imprisonment and fines) for wildlife crimes (with special provisions for killing tigers, elephants, etc.). The BFD, charged with implementing and enforcing the law, subsequently developed 21 regulations to facilitate implementing the law. In Nepal, the government drafted legislation to ensure its compliance with CITES, which was submitted to parliament during project implementation but approved by parliament after the project closed. The IEG mission was unable to obtain a copy of this legislation to review. In both countries, the new legislation resulted in substantially increased penalties and fines for poaching and illegal wildlife trade (as evidenced by the penalties in Bangladesh cited above). These measures enhance the enforcement capacity of the institutions, while providing strong incentives not to commit wildlife crimes.

4.11 **Second Sub-objective—Building or enhancing shared capacity, institutions, knowledge, and incentives to tackle other selected regional conservation threats to habitats in border areas.** The SRCWP’s achievements for meeting this sub-objective are its accomplishments in the intermediate outcomes of applied research and innovative activities that address conservation threats to habitats (knowledge and shared capacity). The two governments prepared a range of knowledge and research products, which they shared with the other SAWEN member states. These achievements were complemented by intermediate outcomes in innovative pilot activities designed to strengthen conservation and management in protected areas, in border areas, and in the region as a whole. Finally, the project delivered a number of achievements dealing with human-wildlife conflicts and species conservation in border areas. The following elaborates on these achievements.

4.12 Knowledge products and research prepared: Both governments developed what the SRCWP called “knowledge products” on biodiversity and wildlife conservation and management. These various outputs consisted of national strategies and protocols for wildlife conservation; management plans for protected areas, reserve forests, and national forests; scientific studies of selected species; and innovative pilot projects on wildlife conservation. In Bangladesh, the knowledge products included revision and publication of IUCN’s Red List of Bangladesh (2015), which includes estimates of the population and geographic distribution of threatened species, as well as the level of threats and the Tiger Survey in the Sundarbans (2015), undertaken with the assistance of the Wildlife Institute of India, as well as a number of studies of sea turtle movements, elephant migration corridors, population estimates of saltwater crocodiles, and globally threatened water birds. A complete list of these knowledge products can be found in Appendix D. In Nepal, the knowledge products were drawn from the 11 pilot sub-projects in which innovative research activities with a regional dimension were supported. These sub-

projects provided an opportunity to research and pilot innovative wildlife conservation approaches for conservation of endangered flagship species, management of human-wildlife conflicts, and development of eco-tourism opportunities. These sub-projects are discussed below.

4.13 Sub-projects and pilot activities identified and completed: Together, Bangladesh and Nepal implemented 47 pilot activities and sub-projects (36 in Bangladesh, 11 in Nepal) that benefited regional conservation of critical wildlife habitats and conservation of targeted species (e.g. wild elephants, tigers, rhinoceroses, white-rumped vultures, etc.). Among the results of these sub-projects were strengthened protected area management capacity (management plans for all 41 protected areas in Bangladesh, five protected areas in Nepal); improved effectiveness of anti-poaching and patrolling activities (introduction of Spatial Monitoring and Reporting Tool [SMART] patrolling in both countries); enhanced conservation of habitats (forests, grasslands) and water resources (watering holes) for targeted species; and introduction of the Management Effectiveness Tracking Tool (METT) to measure improvements in habitat management, and so on. The IEG mission learned that in Bangladesh, the BFD conducted 40 workshops and trained 300 staff in using the METT. The METT was then employed to measure the effectiveness of management in all 41 of the protected areas; in Nepal the Department of National Parks and Wildlife Conservation (DNPWC) tested the METT in Chitwan National Park but decided not to use it in the other parks. The IEG mission was unable to review the METT documentation in both countries.

4.14 Among the innovative sub-projects implemented in Bangladesh were: a carrying capacity assessment for eco-tourism and virtual tourism in the Sundarbans; a pilot program to identify effective measures to reduce human-elephant conflict (HEC); and establishment of toxic-drug-free safe zones and population monitoring for vultures, as well as others mentioned in paragraph 4.10. A complete list of the sub-projects implemented in Bangladesh can be found in Appendix D. In Nepal, the SRCWP implemented 11 sub-projects spread over five thematic areas, namely, habitat management, anti-poaching, and wildlife crime control; flagship species conservation; human-elephant conflict mitigation; and strengthening protected areas for effective implementation. Among the innovative activities undertaken by the sub-projects were: the introduction of a special management information system (MIST)-based SMART patrolling in the Chitwan National Park and the Suklaphanta Wildlife Reserve; the strengthening of management effectiveness in Banke National Park; the improved management of grassland and water resources in the Parsa Wildlife Reserve; and innovative habitat and grassland management in the Chitwan National Park. A complete list of the sub-projects implemented in Nepal can be found in Appendix E.

4.15 Infrastructure investments to promote regional wildlife conservation: The SRCWP built a number of small civil works to strengthen wildlife conservation and raise public awareness regarding illegal poaching and wildlife trade. In Nepal, construction of one information center, two wildlife rescue centers, and eight guard posts to house Nepalese Army guards stationed in the parks contributed to conservation and management of wildlife in protected areas. In Bangladesh, the BFD constructed the project's major, multi-purpose output, the Bangladesh Wildlife Centre, just outside Dhaka. Designed to become a "Knowledge Centre for Wildlife" for the South Asia region, the Centre was meant to respond to the wildlife research and capacity-



building needs of Bangladesh while serving as a knowledge center of excellence for research, training, and awareness-raising for the wider region. The Wildlife Centre was fully funded and staffed at the end of the SRCWP (construction was completed in the final months before the project closed). But, without the project, the Wildlife Centre is severely limited in staffing (20 regular staff out of a projected staff of 60) and funding. The IEG mission visited the Wildlife Centre to see the BFD's showcase output and meet with its staff. The Centre is located on a campus-like complex, with a massive 500-seat auditorium, a library, conference rooms, training classrooms, and dormitories all built around the administration building. It had recently hosted an international meeting in the auditorium, but it was not in use during the April 2018 visit and resembled more a white elephant than a vibrant knowledge centre. It may be too early after the project closed to expect a busily functioning biodiversity and wildlife training and research center, but the Wildlife Centre was too large an investment in project funds to go underutilized.

4.16 Investments addressing human-wildlife conflicts: The SRCWP made critical investments in both countries in border areas where HEC posed threats to human life and agricultural production. The project invested in installing solar electric fences to provide protection from wild elephants both to local communities and to crop production. The IEG mission visited one area in Jhapa, Nepal, where 17 km of solar electric fencing had been installed to curb the invasion of a migratory herd of elephants crossing the Mechi River border with India. In addition to the fencing, the project supported formation of an elephant patrolling team to monitor the fencing and a community-based HEC management committee; construction of three watch towers along the fencing; and preparation of a Conflict Mitigation Action Plan (2015-2019). In a community consultation held after viewing the fencing, members of the community described the benefits provided by the fencing in terms of human health and safety (no deaths in the community from elephants since the fencing) and crop production (a return to 98 percent harvest for maize and rice after only 0 percent and 10 percent harvests, respectively, before the fencing was installed).

4.17 Regional threats to habitats in border areas addressed: The SRCWP made significant achievements in addressing many of the regional threats to critical habitats and target species (tigers, rhinos, and elephants). In the Sundarbans Reserve Forest, for example, Bangladesh collaborated with India in managing the mangrove forest the two countries share along the coast of the Bay of Bengal, jointly conducting the most recent tiger census (2015) and instituting more effective SMART patrolling of the reserve forest and coastal area. In Nepal, tiger conservation efforts led to expansion of the tiger habitat into Banke National Park (from neighboring Bardia National Park) and the use of SMART patrolling to monitor the tiger population and prevent poaching in these parks (as well as in Chitwan National Park and the Shuklaphanta Wildlife Reserve). The IEG mission visited these three national parks in Nepal and held discussions with park officials and Nepalese Army personnel assigned to the parks about conservation of critical habitats, the use of SMART patrolling to curb poaching activities, and the continuing threats to wildlife from poaching and illegal wildlife trade. The IEG mission was impressed with the capacity for management and conservation in the parks and the effectiveness of SMART patrolling in reducing threats to wildlife in them. The discussions also included efforts at community engagement through conservation awareness programs (community consultations, activities at schools), income-generating activities in the buffer zones (seed money for farming, animal husbandry), and the role of community-based, anti-poaching units (informing park

officials of violations). Again, the IEG mission found credible the community outreach efforts in the buffer zones around the parks and the success they had in turning a community initially hostile to the park into one actively engaged in conservation efforts.

## Outcome

4.18 The SRCWP's accomplishments demonstrate that Bangladesh and Nepal have made considerable progress in building and enhancing institutions, both regional (SAWEN) and national (WCCU, WCCB); strengthening management and technical capacity (in law enforcement agencies, protected areas, reserve forests, and national forests); and disseminating knowledge (wildlife crime database, SMART patrolling) to both curb the illegal wildlife trade in the region and address regional conservation threats to habitats in common border areas.<sup>5</sup>

4.19 For these reasons, the achievement of objectives is rated **substantial**.

## 5. Efficiency

5.1 Rating the efficiency of the SRCWP is not a straight-forward exercise. The ICR based its rating of substantial on the benefit-cost analysis of the project contained in the PAD and comparison of cost and efficiency of similar activities in comparable biodiversity conservation projects. Using these bases, the ICR concludes that the benefits of the SRCWP exceed the costs as follows:

- Testing the PAD's calculations and attributing the decline in illegal trade to the project (principally SAWEN), then finding the project benefits exceed the costs in most cases.
- Reviewing the benefit-cost analysis yielded a positive benefit-cost ratio depending on the benefit flow.
- Comparing the institution and capacity-building activities in similar biodiversity conservation projects suggests a comparable economic rate of return in the range of 7 to 12 to 18 percent.

5.2 The fundamental flaw in this approach, the ICR notes at the outset, is that finding accurate data on the illegal wildlife trade remains a challenge, with significant geographic and temporal limitations. In fact, IEG does not consider it a reasonable expectation to be able to measure either changes in wildlife numbers or changes in wildlife trade volume attributable to the SRCWP, given that the project of five and one-half years focused predominantly on building a regional platform and strengthening capacity. It may be years before the project can be credited with making substantial changes in these numbers.

5.3 Discounting the benefit-cost analyses, it may well be that, for the SRCWP, a plausible cost-benefit analysis yielding defensible rates of return is not possible. In this case, the PPAR turns to reviewing the evidence that suggests some level of cost effectiveness for the project. This includes:

- The decline in poaching reported by Nepal appears to be attributable to the combination of increased government attention to the problem, strengthened national capacity for anti-poaching patrolling, and regional support from SAWEN.
- A successful INTERPOL campaign on poaching and illegal wildlife trade in 2015 acknowledged the support of SAWEN and the collaboration of its member countries.
- A number of achievements attributable to the project at reasonable cost, including training activities; species population surveys; establishment of crime control units in both countries, and so on, have already had some impact on wildlife protection in South Asia.
- One of the sub-project investments, the solar fencing to impede elephants installed in Jhapa, Nepal, while quite a costly investment, had substantial benefits in reducing loss of life and greatly reducing crop damage. It proved to be a useful learning investment as well, that is leading to a much wider adoption of such solar-powered electric fences with, presumably, a similar stream of human life and crop production benefits, depending on location.
- Without receiving any direct investment from the project, India still participated in the coordination and cooperation activities, including regional coordination meetings and an important project study. This suggests a significant additional leverage from the funds allocated to SAWEN.

5.4 In the end, IEG concludes that the SRCWP completed most of its objectives on time and within budget but recognizes that without examining the costs associated with these achievements more closely it is difficult to fully gauge the efficiency with which they were delivered. With these reservations, this PPAR rates efficiency **substantial**.

## 6. Ratings

### Outcome

6.1 Based on the national commitments to biodiversity and wildlife conservation, the relevance of the SRCWP's objective is rated substantial; the shortcomings in the project's results framework and APL design, on the other hand, reduce the relevance of design rating to modest. The significant achievements in wildlife enforcement institution building at both the regional and national levels, coupled with the accomplishments in strengthening wildlife conservation and management, merit rating the efficacy of the SRCWP in achieving its objective substantial. Having completed most of its objectives on time and within budget, the project's efficiency in use of project funds is also rated substantial.

6.2 These ratings lead to an overall outcome rating of **satisfactory**.

### Risk to Development Outcome

6.3 The sustainability of the SRCWP's achievements remains a concern. The ICR rates the risk to the development outcome moderate based on (i) the uptake and continuation of good

wildlife conservation practices, (ii) the establishment of regional (SAWEN) and national institutions and processes to address the illegal wildlife trade and (iii) the transition plans that committed the governments to future financing. The immediate evidence supporting these assertions is not as strong as one would expect, however, which calls into question the sustainability of key project institutions and the financing necessary to cover future operating costs. And, it appears there was a lack of planning for project continuity and for securing the financial sustainability of institutions and conservation activities. On the other hand, the evidence of the SRCWP's enhancement of regional and national capacities, institutions and knowledge with respect to the wildlife trade and other threats marks definite progress toward the PDO outcome of arresting the illegal trade and other threats. Although there are no reliable data on desired changes in the wildlife trade in the region, there are data that suggest increasing conservation of iconic species (see relevant data in Appendix C).

6.4 The sustainability of the SRCWP's achievements remains uncertain, but the IEG mission found significant evidence to warrant a moderate rating for the risk to development objective. In meetings with government officials who were involved in project implementation or are now overseeing post-project activities, it became clear that there remains a continuing government commitment in both countries to the objectives of the project and to maintaining the post-project practices and actions originally initiated by the project. The examples of this commitment are numerous.

- First, the uptake and dissemination of SRCWP-initiated technologies, for example, solar electric fencing to curb HEC, indicate a continuing effort to sustain project achievements. In Nepal, the IEG mission learned that the success in reducing HEC of the project's installation of 17 km of solar electric fencing along the Indian border in Jhapa District has led to Government of Nepal plans to finance and install an additional 72 km of fencing to contain a residential herd of elephants in other areas of the district. Similarly, the uptake and dissemination of innovative practices initiated by the project (e.g. SMART patrolling using GPS-based monitoring of wildlife distributions and poaching in protected areas) provide additional evidence of ongoing efforts to sustain project achievements. The IEG mission learned that the BFD in Bangladesh initiated a pilot sub-project to test SMART patrolling in a part of the Sundarbans, later expanded the SMART patrolling to the entire Sundarbans Reserve Forest, and now plans to replicate this approach in other protected areas. In Nepal, the DNPWC undertook and has continued similar activities with SMART patrolling in Banke, Bardia, and Chitwan National Parks.
- Second, post-project budgetary measures in both countries, for example, conversion of some 107 SRCWP staff to regular BFD budget positions in Bangladesh and a specific budget line item for the WCCB's wildlife crime control activities in Nepal, are evidence of the commitment of both governments to post-project financing of wildlife conservation activities. In fact, the IEG mission learned that the Government of Bangladesh is preparing a "bridge" project (Wildlife Conservation and Habitat Development in Bangladesh) using its own financing to continue wildlife conservation activities for two and a half years until the new World Bank forestry project becomes effective. In the case of SAWEN, the Government of Nepal has established an endowment fund, to which the Government of Nepal and Government of India have made contributions, to support the work of the SAWEN Secretariat. In addition, the

Government of Nepal has continued to fund the SAWEN Secretariat's operations after the project closed (US\$ 21,000 for operational support in 2017-18), at least until the member countries can agree on a regular financing arrangement.

6.5 Based on the evidence provided by these examples, the risk to development outcome is rated **moderate**.

## World Bank Performance

### QUALITY AT ENTRY

6.6 Because of high-level commitments made by the then president of the World Bank, the SRCWP was hastily prepared in 2010–11, with only nine months between concept review and board approval. This haste in preparation may well explain basic project design flaws that later came back to impede project implementation. While the World Bank's preparation team was equipped with necessary specialist skills and adopted a two-pronged approach—capacity building to address the illegal wildlife trade and habitat management to generate regional conservation benefits for protecting iconic species—that was basically sound for achieving the PDO, the World Bank team failed to anticipate problems in implementation. First, there were major delays in implementing the two competitive sub-project funding programs for lack of technical capacity in both countries and lack of clarity in implementation guidelines. The IEG mission confirmed, in discussions with former SRCWP staff, the unanticipated delays in establishing the technical committee required to review proposals for sub-project grant funding in Bangladesh and in building capacity needed to prepare sound technical proposals for sub-projects in Nepal. Second, there were also delays in financial management and procurement resulting from an overestimation of required capacity in project implementing units. Third, there was an apparent lack of planning from the outset to ensure sustainability of project achievements. As a result, the SRCWP got off to a slow start, clarifying implementation and building financial management capacity in its initial years, then was hard pressed to complete all project activities by the time the project closed. And, at project closing, inadequate planning during implementation left concerns over long-term sustainability.

6.7 Quality at entry is rated **moderately unsatisfactory**.

### QUALITY OF SUPERVISION

6.8 The World Bank carried out periodic supervision missions throughout project implementation, with a particular focus on building financial management and procurement capacity in the initial years and then overcoming resulting project implementation delays. The World Bank's mid-term review and subsequent project restructuring to modify the initial results framework and balance costs to reflect the changes were effective in enabling the two countries to achieve the PDO despite the delays suffered at the outset of the project. Regular supervision by the World Bank's safeguard specialist ensured compliance with the project's EMP and World Bank-organized training in procurement and financial management eventually overcame the capacity problems in these areas that caused initial delays in implementation. In sum, the World

Bank's supervision of project implementation was critical to the success of the SRCWP in both countries.

6.9 Quality of supervision is rated **satisfactory**.

6.10 The overall World Bank performance is rated **moderately satisfactory** based on the moderately unsatisfactory rating for quality at entry and the satisfactory rating for supervision.

## **Borrower Performance**

### **GOVERNMENT PERFORMANCE**

6.11 There is spotty evidence on which to base the performance of the governments of the two countries. The commitment of the two governments to the SRCWP was relatively clear since the project grew out of commitments to regional collaboration made in 2010 at the First Meeting on Illegal Wildlife Trade in South Asia in Nepal. The governments followed through on their commitments by assigning the agencies responsible for implementation of the project: the MOEF and BFD in Bangladesh and the Ministry of Forests and Soil Conservation (MOFSC), DNPWC and Department of Forests (DOF) in Nepal. They also acted to establish their specialized wildlife crime enforcement agencies and adopt legislation to strengthen their legal and regulatory frameworks. Beyond that, the Government of Bangladesh committed US\$ 3.0 million in counterpart financing for the project (actual was US\$ 2.5 million); the Government of Nepal, with a much smaller grant, provided no similar commitment. Finally, the Government of Nepal has hosted the SAWEN Secretariat since its inception in 2010 (and continues to do so) to facilitate regional collaboration on the illegal wildlife trade.

6.12 Government performance is rated **moderately satisfactory**.

### **IMPLEMENTING AGENCY PERFORMANCE**

6.13 There were stark differences in performance between the implementing agencies in Bangladesh (MOEF and BFD) and those in Nepal (MOFSC, DNPWC, and DOF). In Bangladesh, the BFD and its project management unit (PMU) lacked stability in the initial years of the project, were regularly understaffed, frequently changed project personnel, and had five project directors over the five and one-half-year life of the project. Procurement problems delayed construction of the Bangladesh Wildlife Centre until the last minute. All these problems caused delays in project implementation. However, with its last director, the PMU did manage to complete all of its project activities by the closing date. In contrast, Nepal's DNPWC and its project coordination unit (PCU), staffed by the NGO, National Trust for Nature Conservation (NTNC), enjoyed relative stability in the initial years of the project. Key staff remained in place throughout the project and capacity was strengthened with appropriate staff training, which allowed the PCU/NTNC to maintain satisfactory performance ratings during implementation of the project.

6.14 Implementing agency performance is rated **moderately satisfactory**.

6.15 Overall Borrower Performance is rated **moderately satisfactory**.

## **Monitoring and Evaluation**

6.16 **Design.** The design problems in the SRCWP's results framework described earlier resulted in shortcomings in the initial design and implementation of the monitoring and evaluation (M&E) system for the project. The problem was that the original results framework lacked appropriate indicators for tracking all aspects of the PDO, particularly illegal wildlife crime. The PAD contained PDO results indicators that were vague and difficult to measure accurately, for example, progress in developing sustainable regional mechanisms to address illegal wildlife trade, enforcement agency agreements on regional protocols including approaches and solutions, and so on. The restructuring in 2015 revised the results framework indicators to provide more appropriate targets for measuring project performance at the regional and national levels and achievement of the PDO, for example, a regional mechanism developed and operational for addressing illegal wildlife trade, wildlife crime control institutions established in participating countries, and so on. But, at that point the SRCWP's M&E system had spent its initial years of implementation attempting to measure progress with the original indicators.

6.17 **Implementation.** Implementation of the SRCWP's M&E system was hindered by the indicator problems explained above in design. There is limited information on M&E implementation, other than stating that national and sub-project data were aggregated and reported to the World Bank and the respective governments. The dubious quality of the data was recognized by the mid-term review and was addressed in revisions to the results framework made in the 2015 restructuring. The monitoring during field visits of social impacts in human-wildlife conflict sub-projects is highlighted as an example, but provides no details on what the impacts, positive or negative, were.

6.18 **Utilization.** The SRCWP made the best of its flawed M&E system. The indicators were used to track progress in implementation at regional, national, and sub-project levels. And, the regional meetings organized by SAWEN were used to compare national data and experience to address implementation progress. The M&E system improved after the revisions to the results framework were made in the 2015 restructuring, and the M&E system appears to have made a strong finish. M&E-generated data from various sources informed decision making at the regional and national levels to better control the illegal wildlife trade and other conservation threats and identify areas that should be brought under biodiversity conservation.

6.19 M&E quality is rated **modest**.

## 7. Lessons

- **Given their design and implementation challenges, regional projects focusing on global public goods require adequate preparation time to conduct a thorough analysis of participant capacities and commitments.** Because of high-level commitments made by World Bank management, the SRCWP was hastily prepared at the expense of a complete analysis of the capacities and commitments of the participating countries. This resulted in several implementation delays that later had a significant impact on project implementation and progress.
- **Regional projects aiming to pilot new approaches to collaboration on transboundary wildlife management and illegal wildlife trade require a carefully designed results framework.** Such a framework is necessary to measure and document changes in intermediate outcomes, especially regarding institutional cooperation and capacity. In the SRCWP's case, indicators at the intermediate outcome level for measuring progress and success in regional cooperation were not well thought through at the design stage and later required revision to capture progress in this area more accurately.
- **Regional projects designed to build institutions and capacity for collaboration on transboundary wildlife management and illegal wildlife trade require a long-term investment to ensure success in achieving results.** In the SRCWP's case, the World Bank's original decision to employ an APL to support regional initiatives for wildlife protection was well-advised, recognizing that this lending instrument would allow other countries interested in wildlife conservation to join the countries of South Asia and that regional capacity building to support wildlife conservation would require a follow-on set of projects. In the end, no other countries joined Bangladesh, Bhutan, and Nepal in the APL and there was no follow-on project to consolidate achievements and institutionalize regional capacities.

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<sup>1</sup> Project Appraisal Document (PAD) for First Phase of the APL, March 11, 2011, p. 9.

<sup>2</sup> Financing Agreement between Nepal and IDA, June 27, 2011, p. 4.

<sup>3</sup> SAWEN 2015. SAWEN Retrospective Report 2011-2014. SAWEN Secretariat, Kathmandu.

<sup>4</sup> Wildlife crime control statistics provided by the WCCU indicate an increase in the number of offenders arrested (2012: 119; 2015: 171) and in cases successfully prosecuted (2012: 8 cases; 2015: 29 cases).

<sup>5</sup> Although the APL objective of increasing the population of critically endangered animals was not included in the PDO, the IEG mission attempted to gather information on the populations of these animals. The results are shown in Appendix F.

## Appendix A. Basic Data Sheet

### STRENGTHENING REGIONAL COOPERATION FOR WILDLIFE PROTECTION IN ASIA

#### Key Project Data (amounts in US\$ million)

	Appraisal estimate	Actual or current estimate	Actual as % of appraisal estimate
<b>A. Bangladesh</b>			
Borrower	3.0	2.5	83
IDA	36.0	29.2	81
<b>B. Nepal</b>			
Borrower	0.0	0.0	0.0
IDA	3.0	2.92	97
			-

#### Cumulative Estimated and Actual Disbursements

	<i>FY13</i>	<i>FY14</i>	<i>FY15</i>	<i>FY16</i>	<i>FY17</i>
Appraisal estimate (US\$M)	11.85	17.72	21.15	22.50	22.50
Actual (US\$M)	21.1	10.8	14.8	20.4	20.42
Actual as % of appraisal	178	60.9	69.9	90.6	90.7
Date of final disbursement:				3/31/2017	

#### Project Dates

	Original	Actual
Initiating memorandum	--	--
Negotiations	--	--
Board approval	--	04/07/2011
Effectiveness	--	06/29/2011
Closing date	12/31/2016	12/31/2016

### Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (World Bank budget only)	
	Staff Weeks (number)	US\$ 000s (including travel and consultant costs)
<b>Lending</b>		
2011	86	443.0
2012	0	0.3
<b>Total</b>	<b>86</b>	<b>443.3</b>
<b>Supervision/ICR</b>		
2011	1	4.5
2012	27	92.9
2013	45	105.8
2014	68	231.4
2015	32	162.1
2016	20	112.7
2017	13	97.5
<b>Total</b>	<b>206</b>	<b>806.9</b>

### Other Project Data

#### Task Team Members

Name	Title (at time of appraisal and closure, respectively)	Unit	Responsibility /Specialty
<b>Lending</b>			
Sumith Pilapitiya	Lead Environmental Specialist	GENDR	TTL
Marinela E. Dado	Senior Operations Officer	GENDR	TTL
Siet Meijer	Natural Resources Mgmt. Specialist	GCCIA	Specialist
Shakil Ferdausi	Senior Environmental Specialist	GSU06	Specialist
Anupam Joshi	Senior Environmental Specialist	GSU06	Specialist
<b>Supervision/ICR</b>			
Sumith Pilapitiya	Lead Environmental Specialist	GENDR	TTL
Marinela E. Dado	Senior Operations Officer	GENDR	TTL
Nathalie Johnson	Senior Environmental Specialist	GENDR	TTL
Farhat Chowdhury	Environmental Specialist	GENDR	Co-TTL
Andrew Zakharenka	Natural Resources Mgmt. Specialist	GEN06	ICR TTL

## Appendix B. List of Persons Met during IEG Mission

### Stakeholders Met by SRCWP Mission 1–21 April 2018

#### BANGLADESH

Institution/Organization	Name	Title
<b>Government of Bangladesh</b>		
Bangladesh Forest Department (BFD)	Mr. Md. Jahidul Kabir	Conservator of Forests Wildlife and Nature Conservation Circle
	Mr. Zahir Uddin Ahmed	Deputy Chief Conservator of Forests Social Forest Wing
	Mr. Abu Naser Mohsin Hossain	Assistant Conservator of Forests Wildlife Crime Control Unit Wildlife and Nature Conservation Circle
	Dr. Md. Zahidur Rahman Miah	Deputy Conservator of Forests Legal Unit Wildlife and Nature Conservation Circle
Bhawal National Park	Mr. Md. Zahir Akand	District Forest Officer Wildlife Management and Nature Conservation Division
	Mr. Md. Abul Hashem	Forest Ranger Bhawal National Park
Bangladesh Wildlife Centre	Mr. Mihir Kumar Rho	Director Bangladesh Wildlife Centre
<b>Non-governmental Organizations</b>		
National Foundation for Nature Conservation Zoological Society of Bangladesh	Dr. Tapan Kumar Dey	Chief Executive Director National Foundation for Nature Conservation General Secretary Zoological Society of Bangladesh (former Project Director of SRCWP)
International Union for the Conservation of Nature	Mr. Ishtiaq Uddin Ahmad	Chief Conservator of Forests (retired) Country Representative of IUCN (former)

Climate Resilient Ecosystems and Livelihoods (CREL)	Mr. Ruhul Mohaiman Chowdhury	Technical Program Coordinator Climate Resilient Ecosystems and Livelihoods (CREL) Winrock International (USAID Grantee)
Climate Resilient Ecosystems and Livelihoods (CREL)	Mr. Utpal Dutta	Senior Community Mobilization Specialist Climate Resilient Ecosystems and Livelihoods (CREL) Winrock International (USAID Grantee)

### NEPAL

Institution/Organization	Name	Title
<b>Government of Nepal</b>		
Ministry of Forests & Soil Conservation	Mr. Gopal Prakash Bhattarai	Deputy Director General Department of National Parks and Wildlife Conservation
	Dr. Maheshwar Dhakal	Joint Secretary, Chief Biodiversity & Environment Division
	Ms. Madhuri Karki	Planning Officer Department of Forests
	Ms. Sushma Rana	Investigation Officer Focal Person for WCCB Wildlife Crime Control Bureau
Ministry of Forest and Environment	Mr. Bodh Raj Subedi	Under Secretary District Forest Officer Jhapa District
<b>National Parks</b>		
Banke National Park	Mr. Dil Bahadur Purja Pun	Chief Conservation Officer (Warden)
	Mr. Lal Bahadur Bhandari	Assistant Conservation Officer (Deputy Warden)
	Lt. Col. Basudev Dhimal	Nepalese Army
	Ms. Sabitra Pun	Ex-president Banke Buffer Zone Management Committee
Chitwan National Park	Mr. Ram Kumar Aryal	Senior Administrative Officer Biodiversity Conservation Centre
	Mr. Santosh Bhattarai	Conservation Officer Biodiversity Conservation Centre
	Mr. Krishna Chowdhury	Head of Community-based Anti-Poaching Unit

<b>Regional Organization</b>		
South Asia Wildlife Enforcement Network (SAWEN)	Mr. Pradeep Bhattarai	Environment Officer SAWEN Secretariat
<b>Non-governmental Organizations</b>		
Tribhuvan University	Dr. Khadga B. Basnet	Professor Department of Zoology
National Trust for Nature Conservation	Mr. Govinda Gajurel	Member Secretary Governing Board of Trustees
	Dr. Siddhartha B. Bajracharya	Executive Director (Programme)
	Mr. Bidur Prasad Pokharel	Senior Finance Officer

## **Appendix C. List of Knowledge Products the SRCWP Prepared in Bangladesh**

### Protected Area Management Plans:

- Nijhum Dweep National Park;
- Sundarbans West Wildlife Sanctuary;
- Dudpukuria-Dhopachari Wildlife Sanctuary;
- Bhawal National Park;
- Altadighi National Park

### Technical Reports:

- Action Plan to Operationalize the Wildlife Conservation Act
- Master Plan for Wildlife Management in Bangladesh 2015 - 2035
- Conservation Strategy of Migratory Birds in Bangladesh
- Action plan for the management of illegal exploitation and trade of threatened bird species in Bangladesh
- Human-Wildlife Conflict Management in Bangladesh with Emphasis on Elephant and Tiger
- Patterns of Health, Illness and Associated Factors at Population Level and Epidemiology and Zoonosis in Bangladesh
- Awareness creation for Wildlife (amphibians, reptiles, birds and mammals) Conservation
- Conservation Strategy for Protected Areas
- Wildlife Crime Control Plan

### Training materials for use by the Bangladesh Wildlife Centre:

- Protected Area Management Skills 1
- Protected Area Management Skills 2
- Environmental and social safeguards
- Crime control and CITIES
- Wildlife handling, care, Epidemiology & Zoonosis
- Communication and Awareness
- Environmental safeguard and Environmental Monitoring
- Protected Area Surveillance
- Wildlife Crime and Case Prosecution
- Eco-tourism Training
- Training on Geo-information System (GIS)

## Appendix D. List of SRCWP Sub-Projects Implemented in Bangladesh

<b>Conservation Sub-Projects Implemented by Bangladesh Forest Department</b>		
<b>ID</b>	<b>Name of the Sub-Project and Location</b>	<b>Remarks</b>
1.	Introduction of SMART Patrolling in the Sundarbans South Wildlife Sanctuary Sundarbans, Khulna	Since June 2016 (to end September) some 15,792 kms of waterways have been visited in 211 patrol days, some 140 arrests made, 151 boats seized and some 2,827 animal sightings recorded. All this information fed into the Tiger database and GIS lab. Sustainability is a concern after SRCWP. Particularly for maintenance and operating costs. USAID and GIZ/WCS also providing support though for Sundarbans West SMART Patrolling by USAID and capacity building from GIZ / WCS. 59 officers engaged in Khulna Circle of which 21 are paid through SRCWP (40% loss possible).
2.	Tiger Population Estimation Using Camera Trapping Methods in the Sundarbans, Bangladesh	New methodology for tiger population estimates using camera-trapping developed under SRCWP gives estimate of 106 tigers in Bangladesh Sundarbans. Poaching is serious threat. Main threat is to tiger habitat from human activities. SMART patrolling is key response to this.
3.	Habitat Improvement and Eco-Tourism Development of Satchari National Park, Hobigonj	Tourist infrastructure improved. Butterfly garden with 167 species of butterflies and 35 species of flora planted. Staff trained and awareness raising in adjacent communities conducted, Co-Management Committee formed with scheme for revenue sharing elaborated. Sustainability of infrastructure and management after project a concern.
4.	Development of Eco-Tourism and Biodiversity Conservation at Kaptai National Park	50 ha of fodder plantation for wildlife, particularly elephants. Sheds, washroom, foot trails improved for ecotourism development.
5.	Eco-Restoration and Development of Bhawal National Park, Gazipur	Bhawal National Park created in 1979. Awareness programme has been effective in reducing illegal cutting of trees for fuelwood and timber. Eco-cottage, rest house and picnic corners have been renovated. 5 kms of barbed wire fencing put up to reduce illegal harvesting. Bhawal NP is near Dhaka city and there is heavy pressure on resources. AIG and biogas stoves have been promoted to reduce pressure. Further barbed wire fencing would be required. A Butterfly path has been created with the assistance of the Zoology Department of Dhaka University and a wildlife instructor handles rescue and release into NP. 17 trained staff will be lost after SRCWP.



6.	Habitat Management Plan and Conservation Action for the Critically Endangered Spoon-billed Sandpiper at its Wintering Ground at Sonadia Island, Cox's Bazar Bangladesh	Report not available at time of writing.
7.	Gharial Conservation in Bangladesh, Rajshahi	Gharial survey done by IUCN. Management Plan and Action Plan prepared. Looking at reproduction and release into the wild.
8.	Ensuring Conservation and Habitat Improvement of the Terrestrial Wildlife in Teknaf Wildlife Sanctuary (focusing on Asian Elephant, Fishing Cat, Indian Civet, Hog Badger, Wild Boar, Indian Porcupine and Barking Deer), Teknaf, Cox's Bazar	Roughly 200 elephants in the region. There have been 5 deaths in the last 2 years. 40 ha of elephant fodder planted, 55,000 seedlings produced and distributed to local people. Co-management Committee and Elephant Response Team created. 11 awareness campaigns conducted to understand elephant movements, breeding and how and where to establish corridors for elephant movement. All staff is revenue staff.
9.	Nijhum Dwip National Park Development Project, Noakhali	Focused on habitat diversification and gazetting of NP area demarcated. 200 ha planted for deer fodder and 200 ha of grasslands. Unresolved land issues with people and Ministry of Lands. Pond for deer fresh watering source, foot trails, observation towers. Co-management committee established and community Patrol Groups formed to protect deer and watering birds. Meetings organized with coast guard and marine police. Worked well with university researchers operating in the area. Revenue sharing under discussion.
10.	Habitat Restoration and Eco-tourism Development of Altadighi National Park	Demand for fuelwood by ethnic groups has been reduced through awareness raising, introduction of improved stoves. Ecotourism facilities: 3 kms for foot trails, benches, watering canals for wildlife. Crime Control and wildlife rescue and recovery centre operating. 2800 specimens rescued, 2500 birds, 300 reptiles, 44 offenders brought to mobile court and 30 convicted.
11.	Management Plan Preparation for Sonar Char Wildlife Sanctuary, Sonarchar, Patuakhali	Report produced, not discussed
12.	Protected Area Management Plan for Hazarikhil and Baraiyadhala National Parks, Chittagong	Management plan completed and submitted for printing. Lakh 19.07 investment required over the next five years. This is a biodiversity hot spot and BFD cooperates with NGOs working on livelihood issues in the area.
13.	Consultancy Services for UNODC Toolkit Implementation and Refining Proposal for the Funding Windows, Bangladesh	Toolkit to combat wildlife crime used to train 430 staff from BFD and other law enforcement agencies. Three training manuals produced for frontline, senior staff and judiciary. Work delayed and thus work on crime intelligence was not produced.
14.	Capacity Building Training Program for Wildlife & Nature Conservation Circle Officials through CITES, Bangladesh	See discussion of training above.
15.	Annual Stocktaking Meeting of the Tiger Range Countries (TRCs), Bangladesh	See discussion of Regional coordination above

16.	TA for training on using the Management Effectiveness Tracking Tool (METT), Bangladesh	300 people training, 37 protected areas reviewed, 40 workshops conducted.
17.	SAWEN 3rd Regional Meeting of SAWEN Member Countries, Bangladesh	See discussion of SAWEN above
18.	Formulation of Rules under Wildlife (Conservation and Security) Act 2012, Bangladesh	22 Rules to implement the Wildlife (Conservation and Security) Act 2012 drafted. These rules are still in the process of approval within concerned Departments / Ministries.
19.	Accommodation Facilities for the Wildlife and Nature Conservation Wing, Wildlife Crime Control Unit and Forensics Lab, Ban Bhaban, Agargaon, Dhaka	See discussion of Wildlife and Nature Conservation Wing, Wildlife Circle and WCCU above
20.	Implementation of National Tiger Recovery Program, Sundarbans, Khulna	Tiger Action Plan and Tiger Recovery Plan are being implemented through TRC meetings, bilateral meetings with India, through SMART patrolling and the GIS Lab database as well as through awareness programmes in the region.
21.	Boundary Demarcation of Elephant Corridors, Sherpur	Sherpur is a new Wildlife Management and Nature Conservation Division created under SRCWP. Would need to be absorbed into revenue budget. Elephant migration and human-elephant conflict (HEC) are the major issues. Solar fencing put up (15kms). Human and elephant casualties have been reduced to zero. People are requesting this be extended to other villages and locations. The elephant population in question is estimated at 100 – 120 animals. Plantation of elephant fodder. 23 Elephant Response Teams who operate the solar fencing and organize responses to elephant incursions. Community mobilization positive though sustainability issues are there. Ideally cooperation with India on operational basis would enhance ability to manage the population.
22.	Implementation of Wildlife and Ecosystem Conservation Priorities of the National Biodiversity Strategy and Action Plan (NBSAP) in Teknaf Wildlife Sanctuary & Inani Reserve Forest, Cox's Bazar	Implemented by Wildlife Centre, one of five Management Plans being prepared under SRCWP: prepared Management Plan for Teknaf Wildlife Sanctuary in collaboration with Chittagong University under MOU. To document plant and animal resources and to reduce the dependency of people on the sanctuary resources. Awareness activities conducted. Poverty very high. AIG activities: cattle and poultry (done by Forestry Division).
23.	Development of facilities for Biodiversity Conservation and Eco-tourism in Hakaluki Haor, Moulvibazar	Two new offices and new staff. New patrol boats enable reduction of poaching (two arrests); Observation towers and tourist boats and new Community Centre built; awareness conducted, AIG activities implemented (sewing machines, agricultural inputs, one million seedlings produced, 300 ha of new plantations. Officers trained in role of law enforcement and WCCU functioning; Many turtles seized. A plan to deal with them is needed. Loss of project staff will hurt as of 31.12.2016

\* SRCWP Implementation Completion and Results Report, Bangladesh

<b>Innovative Pilot Sub-Projects Implemented by NGOs and Universities*</b>		
<b>ID</b>	<b>Name of the Sub-Project and Location</b>	<b>Remarks</b>
1.	Ecological and Socio-economical Aspects of Human-Langur Conflict (HLC) and Mitigation Measure in Keshabpur and Manirampur, Jessore	Study looked at Langur behavior and broke “total activity budget” into time spent on resting (60%), feeding (19.7%), grooming (8.1%), parental care (0.9%), submission (0.1%), playing (5.9%), moving (4.3%) and aggression (0.4%). Habitat utilization showed that Langurs spend 66% of their time in homestead gardens, 21% of their time in agricultural and crop lands, 7% in and around water bodies, and 6% in other habitats. Damage to crops by Langur was assessed showing that 20 species (mainly fruits) are impacted having consequence for HWC conflict. In response 12,000 seedlings were distributed and awareness campaigns conducted.
2.	Carrying Capacity Assessment for Eco-Tourism and Development of Information Hub for Virtual Tourism in the Sundarbans, Bangladesh	The analysis of tourist carrying capacity of Sundarbans shows that tourism is seasonal, mainly from October to March. 48% of revenue is generated from national tourists while 52% from international visitors. While tourist satisfaction is good, there is a need to improve waste disposal and washroom facilities. The real carrying capacity is estimated at 1950 tourists per day. A virtual tourist hub (web-based) has been created.
3.	Human Elephant Conflict (HEC) Management in the Tran-boundary Area of Northern Part of Bangladesh, Sreebardi, Nalitabari and Jhinaigati area of Sherpur and Bakshiganj area of Jamalpur	Implemented in conjunction with project W2 / 4 (see below). The area concerned is a 60 km by 4 km forest along the Indian border. Elephant population assessment (by IUCN) indicates somewhere between 120 and 150 individuals coming across from India and impacting on paddy production during harvest time. Estimated elephant population on the Indian side is 1500. The border fence with India has significant impact on movements. Elephant Response Teams constituted.
4.	Status Survey & Development of Elephant Action Plan for Bangladesh, Chittagong, CHT, Cox's Bazar	Work conducted between May 2013 and November 2016. A publication “Elephant Routes and Corridors” (November 2016) will assist BFD and communities in adjusting strategies. Elephant response teams (ERT) created (23 in Sherpur and 7 in Chittagong) and are to be “handed over” to BFD after SRCWP. ERTs have potential as tourist guides as well. More ERTs would be needed in Chittagong area. In Sherpur operational coordination with India is a key to long term management of elephant populations. A protocol has been drafted in the context of bi-lateral meeting held in Kolkata and is under consideration.
5.	Monitoring & Conservation of Wildlife in Kaptai National Park of Bangladesh	Assessment of wild populations conducted and threats to endangered species identified. 62 mammal, 74 reptile, 358 bird and 38 amphibian species listed, representing 50% of the species found in Bangladesh and comprising 17 globally threatened species. Major threats are from firewood collection, poaching and retribution killings, and illegal logging and pollution. Pressures and increasing and implementation of the proposed Management Plan is urgent.

<b>Innovative Pilot Sub-Projects Implemented by NGOs and Universities*</b>		
<b>ID</b>	<b>Name of the Sub-Project and Location</b>	<b>Remarks</b>
6.	Conservation of Sea Turtle in Bangladesh Coastal and Marine Territory, St. Martin Island, Sahporirdwip, Sonadia Island, Dholghat, Kutubdia, Parki, Sandwip, Nijhumdwip, Kuakata	Covering 180kms. of nesting sites along the Bay of Bengal. Protection of hatching sites, 180,000 hatchlings released. Fisherman's awareness programme and training to mitigate threats. Community co-management teams. 5 turtles tagged and migration tracked. Nesting sites move with the dynamics of the changing coastline. Awareness works, but GOB protection of hot spots would be essential. Small money needed to continue community monitoring. Some support from US Fish and Wildlife Service.
7.	Pilot Program to Identify Effective Measures to Reduce the HEC, Sherpur, Jamalpur and Netrokona	Programme has implemented a number of measures to reduce HEC. Damage is to homes and crops, often just before harvesting season (December, March, June). Measures have included solar power fencing, biological fencing (thorns, pepper, chili paste), early warning alarms and elephant response teams to chase herds away. All seem to have reduced damage though experience too short to draw conclusions about long-term effectiveness and sustainability of methods. In addition, 160 ha of elephant fodder species have been planted. Some 38,000 people have been concerned by measures.
8.	Updating Species Red list of Bangladesh	Updated Red List, last iteration in 2000. 1 <sup>st</sup> time crustaceans and butterflies included. 160 researchers, scientists and government officials trained in Red List methodology. 1619 species updated, 14 new species discovered. In addition to formal Red List, numerous communications items produced and journalists engaged. Shows that Forest habitats are key for wildlife. Additional work needed for plant and marine species. Red List can inform / guide / promote responsible tourism, and inform laws, acts and spatial conservation considerations.
9.	Knowledge Sharing and Developing Protected Area Management System to conserve wildlife by research-based video documentation and campaign at Five Protected Areas of Bangladesh (POJF), Tangail/Mymensingh, CTG Hill Tract, Satkhira, Cox's Bazar	Five documentary films showcasing 5 protected areas (Madhupur NP, Dudhpukuria-Dhopachari Wildlife Sanctuary; Sundarban (West) Wildlife Sanctuary, Tanguar Haor, Saint Martin's Island) produced along with campaign materials.
10.	Globally Threatened Water bird Conservation in the Coastal Areas of Bangladesh, Char Shahjalal of Bhola, Domar Char at Nijhum Dweep, Teknaf & St. Martins	Identified 4 delta islands for long-term monitoring on the basis of census, monitoring of threats, local conservation dialogues, and community patrolling. Have identified possible Ramsar sites and completed the Ramsar Information Sheets for Nijhum Dweep and four delta islands. Satellite tagged four Skimmers. Would need a budget to be able to track these (Argos). Information on Ramsar qualifications and info on tracking handed over to BFD.
11.	Population Assessment, Protection and Conservation of Saltwater Crocodile ( <i>Crocodylus porosus</i> ) in the Sundarban Reserve Forest, Bangladesh	Survey began in 2014. Transect method and random survey. 300kms of rivers surveyed. Estimate 150 – 200 crocodiles in Sundarbans, or a density of 0.7/km <sup>2</sup> . Failed to find nesting sites. These are key for successful management plan. Trained 18 forest staff on data collection and distributed handbook to 55 forest stations. Data is recorded by field staff.

<b>Innovative Pilot Sub-Projects Implemented by NGOs and Universities*</b>		
<b>ID</b>	<b>Name of the Sub-Project and Location</b>	<b>Remarks</b>
12.	White-rumped Vulture ( <i>Gyps bengalensis</i> ) conservation in Bangladesh: Establishment of toxic drug free Vulture Safe Zones and Monitoring of the Population trend, Sylhet, Khulna, Habiganj and Moulvibazar	Heavy pressure on vulture populations from Dichlorofenac used in livestock management that come to them through the food chain. Vulture Safe Zones gazetted under the Wildlife Act, after identification of core breeding habitat, the 1 <sup>st</sup> 2 in the world. One of 62000km <sup>2</sup> and one of 46,000km <sup>2</sup> . 36 local consultation meetings and awareness. Free Meloxicam distribution and a ban on (drug name) in the VSZs. Cooperated with Livestock and Drug Administrations.
13.	Biodiversity conservation through the protection and restoration of water sources of Pablakhai Protected Area under Rangamati district	Report not available at time of writing.

\* SRCWP Implementation Completion and Results Report, Bangladesh.

## Appendix E. List of SRCWP Sub-Projects Implemented in Nepal

<b>Innovative Research Sub-Projects in Wildlife Conservation Implemented by Protected Areas*</b>		
<b>ID</b>	<b>Name of the Sub-Project and Location</b>	<b>Proponent</b>
1.	Strengthening Wildlife Protection by Implementing MIST-based SMART Patrol System in Chitwan National Park	Chitwan National Park
2.	Habitat Management in Padampur, Chitwan National Park	Chitwan National Park
3.	Grassland and Water Resource Management in Parsa Wildlife Reserve	Parsa Wildlife Reserve
4.	Strengthening Wildlife Protection in Shuklaphanta Wildlife Reserve	Shuklaphanta Wildlife Reserve
5.	Improving Management of Bardia National Park through habitat and Human Wildlife conflict management	Bardia National Park
6.	Strengthening Wildlife Crime Control and Wildlife Protection in the Kathmandu Valley	District Forest Office,
7.	Community Based Human- Elephant Conflict Management in Jhapa District	District Forest Office, Jhapa
8.	Strengthening Banke National Park for its Effective Biodiversity Management	Banke National Park
9.	Problematic Wild Animal Rescue and Rehabilitation in and around Kathmandu Valley. District Forest Office Kathmandu 10	District Forest Office, Kathmandu
10.	Strengthening Koshi Tappu Wildlife Reserve for the Effective Management of its Biodiversity	Koshi Tappu Wildlife Reserve
11.	Enhancing the Management of Shivapuri Nagarjun National Park	Shivapuri-Nagarjun National Park

\* SRCWP Nepal Program, Implementation Completion Report, NTNC, Nepal

## Appendix F. Population of Critically Endangered Species

### Estimated Populations of the Targeted Species in Bangladesh\*

Species	National Total		Sundarbans Reserve Forest		Remarks
	2011	2017	2015	2017	
Tigers	No data	101-121	106	101-121	Last tiger census (2015) BFD estimate (2017)
Elephants	No data	268 (210-330)	No data	No data	Last elephant census (2015)

\*Source: BFD, Bangladesh

There are no snow leopards in Bangladesh and no rhinos left in the country at this point. The IEG mission interviewed the two officials cited in the article below taken from Arab News:

The number of Royal Bengal tigers in the Sundarbans mangrove forest in the Bay of Bengal is decreasing at an alarming rate. Both government and NGOs say there are just 121 tigers left in the Sundarbans. **Jahidul Kabir** of the Bangladesh Forest Department's Wildlife and Nature Conservation Circle told Arab News: "We can say (there are) between 101 and 121 Royal Bengal tigers in Sundarbans." The department's last tiger census, in 2015, put the number at 106. The department will implement a five-step action plan next year, he said, focusing on tiger protection, strengthening resources, engaging local residents, education outreach, and research and monitoring. Between 1975 and 2006, censuses show that there were between 200 to 450 Bengal tigers in the Sundarbans, so there has been a marked decrease in numbers in recent years. **Ishtiaq Uddin Ahmed**, Bangladesh's country manager for the International Union for Conservation of Nature (IUCN), while stressing that — because a tiger's "home range" is typically 20-to-25 sq. km, and because of the "ecological situation" in the mangrove forest — the Sundarbans could only support a maximum of 300 tigers. Destruction of their habitat, scarcity of food, and poaching are three of the main reasons why the local tiger population is diminishing, he said, adding: "Another reason is the increased frequency of natural calamities, especially heavy cyclones, which is an adverse impact of global climate change." ([Arab News, November 2017](#))

### Estimated Populations of the Targeted Species in Nepal\*

Species	Bardia National Park		Banke National Park		Chitwan National Park		Remarks
	2011	2018	2011	2018	2011	2018	
Tigers	18	50	No data	10	91	125	2009 & 2014 count
Rhinos	22	35	0	0	408	605	2008 and 2015 count
Elephants	70	120	0	0	40	60	Estimates only

\*Source: DNPWC, Nepal

There are no data on snow leopards in Nepal since they are high mountain species. The following is taken from the IUCN Red List for Nepal:

There are no robust estimates of Snow Leopard global population size and the various figures available are best regarded as guesses. ... Snow Leopards returned to the Sagarmatha area, Nepal, in 2002-2003 after an absence of *ca* 25 years. (IUCN Red List of Threatened Species, 2017)



## **Appendix G. Borrower Comments**

No comments were received from the Borrower.