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PROJECT PERFORMANCE ASSESSMENT REPORT



BHUTAN

Strengthening Regional Cooperation for Wildlife Protection in Asia:

Phase II of the Adaptable Program Loan

Report No. 132872

DECEMBER 13, 2018

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PROJECT PERFORMANCE ASSESSMENT REPORT

BHUTAN

**SECOND PHASE OF THE
ADAPTABLE PROGRAM LOAN ON
STRENGTHENING REGIONAL COOPERATION FOR
WILDLIFE PROTECTION IN ASIA
(IDA-49830)**

December 13, 2018

Financial, Private Sector, and Sustainable Development

Independent Evaluation Group

Currency Equivalents (annual average)

Currency Unit = Bhutanese Ngultrum (Nu)

2018 \$1.00 Nu 71.79

Abbreviations

APL	adaptable program loan
BhuFED	Bhutan Forest and Wildlife Enforcement Database
BP	Bank Procedure
FPSU	Forest Protection and Surveillance Unit
GRF	government reserve forest
HWC	human-wildlife conflict
ICR	Implementation Completion and Results Report
IDA	International Development Association
IEG	Independent Evaluation Group
M&E	monitoring and evaluation
METT	Management Effectiveness Tracking Tool
OP	Operational Policy
PDO	project development objective
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
WCD	Wildlife Conservation Division

Fiscal Year

Government: July 1 – June 30

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Principal Ratings

Indicator	ICR	ICR Review	PPAR
Outcome	Satisfactory	Satisfactory	Satisfactory
Risk to development outcome	Moderate	High	Moderate
Bank performance	Moderately satisfactory	Moderately satisfactory	Moderately satisfactory
Borrower performance	Moderately satisfactory	Moderately satisfactory	Moderately satisfactory

Note: The Implementation Completion and Results Report (ICR) is a self-evaluation by the responsible Global Practice. The ICR Review is an intermediate Independent Evaluation Group product that seeks to independently validate the findings of the ICR. PPAR = Project Performance Assessment Report.

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IEG Mission: Improving World Bank Group development results through excellence in independent evaluation.

About This Report

The Independent Evaluation Group (IEG) assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the World Bank's self-evaluation process and to verify that the World 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 World Bank's lending operations through fieldwork. 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 World 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 World 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 World Bank Country Management Unit. The PPAR is also sent to the borrower for review. IEG incorporates both World Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the World 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 World 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 with 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, and not evaluable.

Bank performance: The extent to which services provided by the World 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 or 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, and 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, and highly unsatisfactory.

Preface

This Project Performance Assessment Report (PPAR) is for a wildlife conservation project, Strengthening Regional Cooperation for Wildlife Protection in Asia (SRCWP; P126193), which was implemented in the Bhutan from 2011 to 2016. A similar PPAR was prepared for the first phase of the adaptable program loan implemented in Bangladesh and Nepal. The SRCWP in Bhutan was approved in June 2011 and financed with an International Development Association (IDA) credit of \$2.25 million (IDA-49830; see appendix A for the Basic Data Sheet on the project). After a slow start-up, the project completed all its planned activities, disbursed almost all project funds, and closed in August 2016 as planned. It was designed as the second phase of an adaptable program loan, but there was no follow-on wildlife conservation project proposed for Bhutan, nor did the government of Bhutan request another IDA credit for that purpose.

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 toward, and measurement of, biodiversity. The PPAR was designed to contribute to the learning engagement currently under way with the Environment Global Practice by examining, among other things, how wildlife conservation benefits are measured and valued in similar projects. The two South Asian 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 similar projects in Southern Africa.

Methods. This PPAR presents its findings and conclusions regarding the SRCWP in Bhutan based on a review of the World Bank's project documentation, including the project appraisal document, loan agreement, Implementation Completion and Results Reports, Implementation Completion and Results Report Reviews, and other relevant World Bank and country project records, where available. For logistical reasons, IEG was unable to schedule a mission to Bhutan to obtain information directly from country sources. Instead, the IEG evaluator conducted telephone interviews with two former SRCWP officials, met with key World Bank staff who supervised implementation of the project, and gathered information available from the internet on the SRCWP in Bhutan and related issues about wildlife protection in South Asia.

The contributions of the former project officials interviewed, and the insights and assistance offered by the World Bank staff in Washington, DC, have proved invaluable to the preparation of this PPAR. A list of officials interviewed is included in appendix B.

Following standard IEG procedure, copies of the draft PPAR were shared with relevant officials in the government of Bhutan 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, such as tigers, snow leopards, one-horn rhinoceroses, elephants, pangolins, and brown bears, all of which are on the International Union for the Conservation of Nature’s Red List of Threatened Species (2017). Among the South Asian countries, Bhutan has a high density and an extraordinary range of species (more than 5,000 vascular plants, 600 birds, and nearly 200 mammals). This biodiversity is extremely important to the patrimony of Bhutan and to the economy and well-being of its people. At project appraisal in 2011, the South Asian region was facing several threats to its wildlife, including rapid loss of critical natural habitats, increasing poaching of wildlife, and 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), 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 project in Bhutan was 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 rhinoceroses. The World Bank financed the project in Bhutan as part of a horizontal (multicountry) adaptable program loan (APL) for Strengthening Regional Cooperation for Wildlife Protection in Asia. The project in Bhutan, which represented the second phase of the APL, was approved in June 2011 and financed with an IDA credit of \$2.25 million.

The project’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” (World Bank 2011b, 4). It had three components: (i) capacity building for addressing the illegal transboundary wildlife trade, including regional harmonization and collaboration in combating wildlife crime through specialized wildlife crime enforcement agencies and capacity building and training of staff across the enforcement agencies aimed at regional collaboration through the regional wildlife enforcement network; (ii) promoting wildlife conservation, including technical assistance for building capacities for preparing species surveys and other wildlife conservation knowledge products, funding for promoting demand-driven investments in conservation and management of protected areas and reserve forests with regional conservation benefits, and initiating innovative pilot projects in wildlife conservation with regional dimensions; and (iii) project coordination and communication carried out by regular staff of the Wildlife Conservation Division.

Implementation of the SRCWP in Bhutan got off to a rocky start, experiencing delays in operations and low levels of disbursement in the first two years. The first disbursement occurred late in the second year of project implementation. Inadequate capacity within the Wildlife Conservation Division resulted in delays in procurement, financial management and monitoring, and evaluation activities. Once the project's personnel stabilized and a qualified project director and coordinator were in place, implementation proceeded at a normal pace. After the initial delays in implementation, the project gradually moved from halting progress to full disbursement by project close. In the end, the project closed as planned in August of 2016, having completed its planned outputs in knowledge products (national tiger and snow leopard surveys), capacity building and staff training for wildlife crime enforcement, and regional collaboration through participation in the regional enforcement network. By project close, the SRCWP in Bhutan had disbursed most of the \$2.25 million of its original commitment and had fully achieved or exceeded the five project development objective indicators and most of the intermediate results indicators (see Achievement of the Objective below).

The relevance of the SRCWP's objective is rated **substantial** based on Bhutan's development philosophy and the international commitments the government of Bhutan made to conserving biodiversity and curbing wildlife trade combined with the World Bank's commitment to Bhutan's sustainable development. The relevance of the project design is rated **modest** because of the inadequate indicators in the original results framework, the poorly designed competitive grants program, and the failure of the intended multicountry approach and follow-on projects in the APL design. The efficacy of the project is rated based on its two subobjectives: (i) targeting illegal wildlife trade and (ii) addressing regional conservation threats to habitats in border areas. The first efficacy subobjective is rated **high** based on project successes in building or enhancing wildlife crime enforcement institutions, both regional and national, and gains made in curbing the illegal wildlife trade in the region as a result of strengthened management and technical capacity. The rating for the second subobjective is **substantial** based on achievements in disseminating knowledge (via a wildlife enforcement database, more effective wildlife monitoring protected area management tools) and in supporting conservation investments and innovative pilot projects to address regional conservation threats to habitats in common border areas. Because most of the activities were completed in a cost-effective manner, on time, and within budget, the project's efficiency is rated **substantial**. These ratings lead to an overall outcome rating of **satisfactory**. The sustainability of project achievements remains uncertain, but there is sufficient evidence in post project achievements and financing to rate the risk to the development outcome as **moderate**.

The haste with which the World Bank prepared the project may explain the project design shortcomings that initially impeded project implementation. The short preparation period precluded conducting critical background studies for the project (for example, assessment of the implementation capacity of the government of Bhutan, economic analysis for the project, status of the illegal wildlife trade) and postponed the design of critical project investments until actual

implementation of the grant funding mechanism. For these reasons, quality at entry is rated **moderately unsatisfactory**. Conversely, World Bank supervision focused on overcoming the shortcomings and resulting delays caused by hasty project preparation, choosing a proactive project coordinator, completing the operations manual, expediting project procurement, and developing suitable investment proposals. Quality of supervision is rated **satisfactory**. The overall Bank performance is rated **moderately satisfactory**.

For the government of Bhutan, the Ministry of Agriculture and Forests struggled to overcome delays in implementation after project start. The project coordination team took more than two years to finalize (with the project coordinator changing three times in the first two years) and the Project Implementation Steering Committee, which should have played a critical role in project operations, did not meet during the first two years of project implementation. Government performance is rated **moderately unsatisfactory**. By contrast, the Wildlife Conservation Division, which served as the Project Management Unit for the project, designated core staff to oversee implementation of the project and management of project activities. Once the project management team was established, it proved effective in day-to-day management, monitoring, and reporting for project implementation. Implementing agency performance is rated **satisfactory**. Based on these ratings, overall borrower performance is rated **moderately satisfactory**.

Design shortcomings in the project's results framework resulted in problems in the initial design and implementation of the project's monitoring and evaluation system. The original results framework lacked appropriate indicators for measuring progress in achieving the project objective, particularly regarding illegal wildlife crime. Those indicators were revised in a project restructuring in 2015, after which the project turned the monitoring and evaluation system into an effective monitoring tool, using the revised indicators to track progress in implementation at subproject, national and regional levels. Monitoring and evaluation quality is rated **modest**.

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

- **Robust upstream work that builds strong and sustained commitment by all governments participating in a regional approach to wildlife protection is a necessary condition for success.** In the case of the SRCWP in Bhutan, there was strong regional collaboration with Bangladesh, Nepal, and India on strategic wildlife conservation issues generated in regional meetings on curbing the illegal wildlife trade even before the project. These regional meetings proved quite effective in synchronizing national policies, sharing useful experiences, coordinating wildlife law enforcement approaches, and disseminating new good practices for adoption by the participating countries.
- **Projects involving multicountry collaboration on global public goods are challenging to design and implement, making the provision of adequate preparation time critical for conducting necessary analyses of participating country commitments and**

capacities. The SRCWP in Bhutan was hastily prepared, at the expense of a thorough analysis of the government of Bhutan’s institutional capacity to implement the project and the capacity of the nongovernmental sector to develop adequate technical proposals and implement appropriate investment subprojects. This resulted in initial implementation delays that had a significant bearing on project implementation and progress.

- **Projects piloting new approaches to multicountry collaboration on transboundary wildlife management present challenges that require a carefully designed results framework to measure and track progress in achieving project objectives.** In the case of the SRCWP in Bhutan, the initial indicators for the development objective and intermediate outcomes were not well developed at the design stage and required revision to capture project progress in achieving objectives clearly and accurately.
- **Projects designed to build national institutions and capacity for multicountry collaboration on transboundary wildlife management require a long-term investment to ensure successful outcomes.** In the case of the SRCWP in Bhutan, the use of an APL to support regional initiatives for wildlife protection was well-advised, recognizing that the APL instrument would allow other countries interested in wildlife conservation outside of South Asia to join the countries of South Asia and that regional capacity building to support wildlife conservation would require long-term technical and financial support (more than a one-project, five-year commitment). 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. A strategic opportunity was missed.

José Carbajo Martínez
Director, Financial, Private Sector, and
Sustainable Development Department

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 rhinoceroses, elephants, pangolins, and brown bears, all of which are on the International Union for the Conservation of Nature’s Red List of Threatened Species (IUCN, 2017). Among the South Asian countries, Bhutan has a high density and an extraordinary range of species (more than 5,000 vascular plants, 600 birds, and nearly 200 mammals). This biodiversity is extremely important to the patrimony of Bhutan, as well as to the economy and well-being of its people (World Bank 2011a, 1–2). In 2011, the South Asian region as a whole was facing a number of threats to its wildlife, including rapid loss of critical natural habitats, increasing poaching of wildlife, and expanding illegal trade in wildlife and wildlife products driven largely by consumer demand in East Asia. Bhutan, because it borders both China and India, formed a part of the transport corridor of the illegal wildlife trade that plagued that region. In addition, at that time, the governments of the South Asian countries (Bangladesh, Bhutan, India, and Nepal) were unable to properly address these issues because of challenges related to weak technical and inadequate institutional capacities.

1.2 Bhutan has long been a leader in conservation in South Asia, its constitution requiring forest cover for at least 60 percent of its land area and its designation that national parks and other protected areas make up more than 51 percent of the country. Even before the project Strengthening Regional Cooperation for Wildlife Protection in Asia (SRCWP), the government of Bhutan had demonstrated its commitment to regional collaboration for conservation purposes as a partner in several regional initiatives, such as the South Asian Association for Regional Cooperation Convention on Cooperation on Environment (SAARC, 1997), the South Asia Co-operative Environment Programme (SACEP, 1982), and the South Asia Wildlife Trade Initiative (SAWTI, 2007).

1.3 The World Bank began to support wildlife conservation in South Asia in 2008 by establishing the Global Tiger Initiative in partnership with the Global Environment Facility, the Smithsonian Institution, and other wildlife conservation organizations (and based on the commitment of the then-president of the World Bank). The Global Tiger Initiative, 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 Global Tiger Initiative Secretariat until 2015.

1.4 The World Bank project, Strengthening Regional Cooperation for Wildlife Protection in Asia (World Bank, 2011a) 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 or SAWEN (South Asian Countries, 2010), created its secretariat based in Kathmandu, and committed to joint operations, intelligence sharing, and identification of markets for illegal wildlife products. These 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 antipoaching patrolling, investigating and prosecuting wildlife crimes, and interdicting illegal wildlife trade activities at their borders.

1.5 Based on discussions with the South Asian countries, the World Bank worked to prepare the SRCWP in Bhutan in 2011, with financing for activities to mitigate the illegal wildlife trade across borders and across South Asia, as well as other related conservation activities at both the national and habitat levels. The SRCWP in Bhutan is intended to contribute to the long-term goal for the region of stabilizing and increasing the populations and habitats of critically endangered animals, particularly tigers, snow leopards, and rhinoceroses. The SRCWP was designed to contribute to this goal by (i) creating and operationalizing a regional institutional mechanism (that is, SAWEN) for addressing transnational wildlife trade and other conservation threats; (ii) updating the national policies and regulatory frameworks for wildlife conservation; (iii) building technical and institutional capacity for curtailing the illegal transboundary trade; and (iv) 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

1.6 The World Bank financed the SRCWP in Bhutan as part of a horizontal (multicountry) adaptable program loan (APL; World Bank, 2011a). The first phase of the APL, the project in Bangladesh and Nepal (P121210), was approved in April 2011 and financed with an International Development Association (IDA) credit of \$36 million and an IDA grant of \$3 million, respectively. The second phase of the APL, the project in Bhutan (P126193), was approved in June 2011 and financed with an IDA credit of \$2.25 million. There was no cofinancing or leveraged funds involved with the APL, nor was there a Global Environment Facility 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. India had recently increased its budget for wildlife protection; therefore, the Indian government chose not to borrow for purposes of the APL but committed 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.

2. Relevance of the Objectives and Design

Objectives

2.1 As part of a regional APL, the SRCWP in Bhutan 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, 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” (World Bank 2011a, 6–7).

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” (World Bank 2011b, 4). The PDO for the project was not revised during project implementation, but a level 2 restructuring of the project took place in October 2015 at the request of the government of Bhutan. The restructuring revised or dropped the existing PDO indicators and regional and intermediate indicators, and new ones were added to enable better measurement of project performance at both national and regional levels and better tracking of progress in achievement of the PDO.

Relevance of the Objectives

2.3 Both the broader vision of the APL and the specific PDO of the SRCWP in Bhutan support the government of Bhutan’s national biodiversity conservation objectives, as well as the regional initiatives mentioned in the Background and Context section. The project’s objective was consistent with Bhutan’s overarching development philosophy of promoting “Gross National Happiness,” which includes conservation of the environment (“ecological diversity and resilience”) among its four key objectives. It was relevant to the commitments the government of Bhutan made in the pertinent international biodiversity conservation conventions to which it is a party, such as the 1971 Convention on Wetlands of International Importance, the 1981 Convention on International Trade in Endangered Species, the 1992 Convention on Biological Diversity, and the 2010 St. Petersburg Declaration on Tiger Conservation. Moreover, the objective was highly relevant to the commitments made at the First Meeting on Illegal Wildlife Trade in South Asia (South Asian Countries, 2010), mentioned in the Background and Context section, which established the SAWEN as the regional mechanism for closer collaboration on illegal wildlife trade and laid the foundation for the support to be provided by the SRCWP in Bhutan.

2.4 Specifically, the focus of the PDO on weaknesses in capacity, institutions, knowledge, and incentives in Bhutan for tackling the illegal wildlife trade addressed the critical constraints to effective protection of the country's iconic wildlife species. The government of Bhutan's national institutions did not have the necessary management or technical capacity to effectively protect the country's wildlife (the Forest Protection and Surveillance Unit [FPSU] assumed new responsibilities for wildlife crime enforcement), conduct the necessary species population surveys, employ the latest tools for wildlife management, and monitor or curb the expanding illegal trade in wildlife in the region. The newly established regional wildlife enforcement network (that is, SAWEN) had just initiated operations and lacked the capacity and resources to serve effectively as the regional mechanism for closer collaboration on wildlife concerns among the countries of South Asia. Furthermore, Bhutan's legislative and regulatory framework for combating wildlife crime and penalizing violators was outdated and inadequate for this purpose. The expanding illegal trade in wildlife and wildlife parts, driven by demand outside the South Asian countries, was recognized worldwide (by the World Bank, international nongovernmental organizations, and South Asian governments) as one of the primary threats, along with degradation of critical habitat, to the survival of the iconic wildlife species. The growth in human settlements and expansion of agricultural and pastoral practices in even remote areas of the country were the major causes of increasing habitat degradation.

2.5 However, the relevance of the PDO to the World Bank's priorities, in terms of its alignment with those set out in the Country Partnership Strategy for fiscal years (FY)11–14 at appraisal and in the Country Partnership Strategy for FY15–19 at project closing (World Bank 2010, 2014) is not as explicit as that for Bhutan. The former strategy included cross-cutting themes of environmental sustainability and environmental conservation; the latter recognized the importance of Bhutan's biodiversity, identifying it as a "global ecological hotspot" and describing some of the threats to that biodiversity - "illegal forest harvesting, human-wildlife conflict, poaching and habitat fragmentation arising from land development projects" (World Bank, 2014, 9). It also included supporting green development as one of its strategic results areas. Neither of these strategies, however, noted the significant threat to Bhutan's biodiversity that the illegal wildlife trade posed. Ultimately, the objective is consistent with the World Bank's commitment to the sustainable development of Bhutan, recognizing that "conservation of environmental and cultural assets is one of the cornerstones of Bhutan's development approach" (World Bank 2014, 9).

2.6 A more fundamental question for the relevance of the PDO is its alignment with the long-term vision of the APL, for which it seems partially relevant but by no means sufficient. In the end, the question is whether this PDO can ever achieve the aim of the APL in terms of stabilizing the population and habitats of critically endangered animals. This is even more pressing given the intractable nature of the illegal wildlife trade in the South Asian region. Within the PDO itself, there are questions about the relevance of the two subobjectives (in terms of clarity and connection). The focus of the first subobjective (tackling the illegal wildlife trade)

is clearly defined (despite questions about the meaning of “tackling”). The thrust of the second subobjective (dealing with other regional conservation threats to habitats in border areas) is not as clearly delineated as that of the first, nor is the connection between the two subobjectives made explicit.

2.7 Despite these lingering questions about the PDO, considering Bhutan’s development philosophy and the international commitments the government of Bhutan made to conserving biodiversity and curbing wildlife trade, combined with the World Bank’s commitment to Bhutan’s sustainable development, the relevance of the objective is rated **substantial**.

Design

Components

2.8 The SRCWP in Bhutan had three components that served to address 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: \$0.08 million; actual total: \$0.08 million) included regional harmonization and collaboration in combating wildlife crime through strengthened legislative and regulatory frameworks; well-equipped, specialized wildlife crime enforcement agencies; capacity building and training of staff across the enforcement agencies aimed at regional collaboration.
- **Component 2: Promoting wildlife conservation in Asia** (expected total: \$2.01 million; actual total: \$2.16 million) included technical assistance for building regional capacities for research in wildlife conservation and funding for promoting demand-driven investments in conservation and management of Bhutan’s protected areas and government reserve forests (GRFs) with regional conservation benefits and in innovative pilot projects in wildlife conservation with regional dimensions.
- **Component 3: Project coordination and communication** (expected total: \$0.04; actual total: \$0.01) included project coordination and implementation carried out by regular staff of the Wildlife Conservation Division (WCD), with support from the Department of Forests and Park Services and the Ministry of Agriculture and Forests; this funding was the government of Bhutan’s contribution to the project. No IDA funds were to be used for this purpose.

Relevance of the Design

2.9 The project components supported the government of Bhutan's priorities in tackling the illegal wildlife trade in the region and addressing the other wildlife conservation threats in Bhutan. As with the SRCWP in Bangladesh and Nepal, the project's design allowed implementation of specific project components and subcomponents to be carried out in a sequential manner, giving first priority to the capacity building and institutional strengthening, followed by the investments in protected areas and other wildlife habitats to improve management of connected habitats and targeted species. Bhutan's legal and regulatory framework and national institutions for wildlife protection needed significant strengthening and capacity building to address the threats to wildlife posed by the illegal wildlife trade and the degradation of critical habitats. In particular, the FPSU and other enforcement agencies needed capacity building to take on new responsibilities for wildlife crime enforcement and to contribute effectively to regional collaboration for this purpose through SAWEN. Once adequate levels of institutional capacity had been attained, the WCD could then focus on investments in the protected areas and GRFs that improved wildlife conservation and management, as well as pilot conservation projects with regional benefits. This overall approach—sequencing necessary institutional capacity building before physical investments to enhance wildlife conservation and management—proved to be sound and supported a logical chain linking the components with achievement of intermediate outputs and outcomes.

2.10 The project design and its results framework had basic shortcomings that were revealed during implementation. As was the case with the SRCWP in Bangladesh and Nepal, the results framework for the project in Bhutan did not include indicators that reflected the outputs and outcomes to be expected for the objectives. This shortcoming was remedied in a restructuring of the project in 2015. At the request of the government of Bhutan, the project underwent a level 2 restructuring that included changes to the PDO indicators and various regional and intermediate indicators intended to permit better measurement of project performance and progress in achieving the PDO. These changes included the following: (i) a reformulation of some of the PDO indicators and several of the intermediate outcome indicators to improve their clarity with more explicit targets, (ii) revision of other PDO indicators to reflect the decision by India in 2013 not to participate in the APL, and (iii) introduction of a new indicator to better measure the effectiveness of regional collaboration on tackling illegal wildlife trade and addressing threats to wildlife conservation.¹ In the end, these changes provided better measurement of project performance at the regional and national levels and better tracking of progress in the achievement of the PDO.

2.11 The design of the project's competitive grants program, which administered 89 percent of project funds, also had shortcomings. Established under component 2, the program was designed to support the creation and operation of two competitive funding windows for (i) investments in conservation, protection, and management of protected areas and GRFs with

regional conservation benefits and (ii) innovative pilot projects in wildlife conservation with regional dimensions.² However, the limited capacity in Bhutan for effectively preparing funding proposals and implementing appropriate investments resulted in significant delays in initiating program operations and ended up with less-than-competitive allocation of its grants (seven of nine investment grants were awarded to the WCD, which served as the project coordination unit). Given the limited capacity in Bhutan, the program's competitive grants approach design should have been dropped.

2.12 The choice of an APL to support regional initiatives for wildlife protection was well-advised, recognizing that (i) the APL would allow other countries in the region interested in wildlife conservation to join the countries of South Asia and (ii) regional capacity building to address the intractable problem of illegal wildlife trade would require more than a one-project, five-year commitment to achieve this objective. The potential presented by the APL, however, was not realized. None of the other tiger range countries chose to join the South Asian countries in the APL. The Independent Evaluation Group (IEG) was unable to determine why this was the case. And, the World Bank chose not to complement the initial projects in the first two phases of the APL with additional operations to consolidate achievements and institutionalize regional capacities.³ In Bhutan, the World Bank is in consultations with the government about possible follow-on activities. 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.

2.13 Given the problems with the results framework, the competitive grants program, and the collapse of the APL design, the relevance of the project design is rated **modest**.

3. Implementation

3.1 Implementation of the SRCWP in Bhutan got off to a rocky start, experiencing delays in operations and low levels of disbursement in its initial years. The interviews with former project staff confirmed the delays in project start-up caused by early personnel changes within WCD (including delayed appointment of a qualified project coordinator), often with long periods between appointments. This was compounded by an initial reticence among project staff to spend the funds provided by the project loan based on a fundamental misunderstanding of the conditions of the IDA credit (project funds not disbursed would not have to be repaid). As a result, the first disbursement occurred late in the second year of project implementation. And, as noted in section 2.11, the competitive grants program experienced initial delays both as a result of the limited technical capacity to administer the program within WCD, as well as the lack of capacity in the country's nongovernmental sectors in terms of qualified applicants and proposals for the subproject grants. Finally, inadequate capacity within the WCD resulted in delays in procurement, financial management, and monitoring and evaluation (M&E) activities.

3.2 Once the project’s personnel stabilized and a qualified project director and coordinator were in place, implementation proceeded at a normal pace. Despite the initial delays in implementation, the SRCWP in Bhutan made satisfactory progress in project implementation and gradually moved from halting to full disbursement by project close. In the end, the project closed as planned in August of 2016, having completed its planned outputs in terms of knowledge products - national tiger and snow leopard surveys (MOAF, 2015, 2016)), capacity building and staff training (particularly for the FPSU), and regional collaboration (participation in the SAWEN). By project close, the project had disbursed most of the \$2.25 million of its original commitment and had fully achieved or exceeded the five PDO indicators and most of the intermediate results indicators.

Planned Versus Actual Expenditure by Component

3.3 The SRCWP in Bhutan disbursed all its funds by project close. Table 3.1 compares the project’s estimated expenditures at appraisal, the actual expenditures at project close, and the percentage of the former represented by the latter.

Table 3.1 Planned versus Actual Expenditure by Component

Project Component	Appraisal Estimate (\$, millions)	Actual Expenditure (\$, millions)	Percent of Appraisal
1. Capacity Building for Addressing the Illegal Transboundary Wildlife Trade	0.08	0.08	100
2. Promoting Wildlife Conservation in Asia	2.01	2.16	107
3. Project Coordination and Communication	0.04	0.01	25
Price contingencies	0.12	—	—
Total project expenditures	2.25	2.25	100

Source: World Bank, ICR, 25.

Safeguards Compliance

3.4 The SRCWP in Bhutan was classified environmental category B, triggering the World Bank safeguard policies for Environmental Assessment (Operational Policy [OP] / Bank Procedure [BP] 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36) and Involuntary Resettlement (OP/BP 4.12). Although the project was expected to produce positive environmental and social effects, project activities in highly sensitive ecological areas triggered the environmental assessment safeguard policy. To comply with World Bank policy and applicable Bhutanese requirements, the government of Bhutan prepared an Environmental and Social Management Framework for the project and developed an environmental management

plan (Bhutan 2011a) to address any potential adverse effects. The potential effects of some subproject activities (for example, tourism facilities, infrastructure for conservation purposes) in sensitive natural areas (protected areas and GRFs) triggered the World Bank's natural habitat and forest safeguards policies. The SRCWP was careful to ensure compliance with these policies and Bhutanese regulatory requirements in planning and implementing its subproject activities. The SRCWP involved neither land acquisition nor resettlement of local populations. However, the project's ecosystem restoration and conservation activities affected land use patterns with potential effects on the livelihoods of local communities, which triggered the World Bank's involuntary resettlement policy. To address this effect, the government of Bhutan prepared a Resettlement Policy Framework (Bhutan 2011b) to ensure that the SRCWP held regular community consultations on the planning, design, and implementation of the activities. The Implementation Completion and Results Report (ICR) indicates that the project's compliance with these safeguard policies was rated satisfactory over the life of the project and, in its discussions with former project officials, IEG found no environmental or social safeguard issues of concern during project implementation (World Bank 2017).

Financial Management and Procurement

3.5 The challenges the SRCWP in Bhutan faced with capacity for both financial management and procurement were noted in the Implementation section. The ICR acknowledges that inadequate staffing for financial management in the Ministry of Agriculture and Forests and delays in designating a fiduciary specialist in the Ministry of Finance caused some of the initial problems in project implementation and raised concerns for World Bank supervision missions. However, once these issues were resolved, the project's financial management regained its footing and began to function normally. The ICR also notes that the World Bank's financial management staff were based in India, which proved useful in providing immediate support when needed, facilitating the review and resolution of issues as they arose. Procurement represented an even greater challenge for the SRCWP in Bhutan, where Ministry of Agriculture and Forests staff had no experience with the World Bank's Procurement and Consultant Guidelines. This resulted in significant delays at project start-up and required intense training in World Bank procurement procedures during project implementation. However, once the training was completed, project procurement began to function adequately, permitting the project to complete the procurements necessary to execute all project activities within the original project implementation period. Because the World Bank's procurement staff was based in India, they were able to proactively provide necessary support to the procurement staff in the SRCWP.

4. Achievement of the Objectives

4.1 The 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. (The vision of the APL is aspirational and efficacy in achieving it is not being evaluated in this PPAR beyond the evaluation of the more immediate objectives of the PDO.)

4.2 The PDO of the SRCWP 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” (World Bank 2011b, 4). (This PPAR evaluates the project’s efficacy in achieving the PDO.)

Subobjectives

4.3 The PDO of the SRCWP in Bhutan specifies a series of intermediate outcomes (capacity, institutions, knowledge, and incentives) that lead to the achievement of the two-part objective (the first subobjective targeting illegal wildlife trade, the second addressing other selected 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 with respect to their contribution to the achievement of each of the two subobjectives. In some cases, such as capacity building and knowledge dissemination, the achievements for different intermediate outcomes may contribute to both subobjectives. In other cases, such as institutions and incentives, the contributions to subobjectives are more clearly delineated. Reviewing the SRCWP in Bhutan along these lines, this PPAR finds the project’s contributions to achievement of its first subobjective to be **high** and its second subobjective **substantial**.

Subobjective 1

4.4 The first subobjective was building and/or enhancing shared capacity, institutions, knowledge, and incentives to tackle illegal wildlife trade.

4.5 The project’s success in meeting this subobjective is in achieving the intermediate outcomes of establishing and operationalizing the regional enforcement network SAWEN and building and enhancing Bhutan’s national wildlife crime enforcement agency, the FPSU. In addition, the wildlife crime enforcement unit undertook another intermediate outcome in collection and dissemination of data on wildlife crimes (knowledge). These achievements are further supported by the intermediate outcome of strengthening the legal and regulatory framework to increase penalties and facilitate interdiction of illegal wildlife trade (thus providing incentives for curbing wildlife crime). The next section elaborates on these achievements.

Establishment and Operationalization of SAWEN

4.6 The government of Bhutan was instrumental in getting the South Asian countries to establish SAWEN and endorse its organizational statute. As the official intergovernmental mechanism for promoting regional cooperation in curbing the illegal wildlife trade, SAWEN is critical to encouraging collaboration among the countries of South Asia, managing transboundary threats to habitats, building regional wildlife crime enforcement capacity, and sharing wildlife crime data collected by the countries. SAWEN hosts annual intergovernmental meetings of the member countries (most recently, in 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 intergovernmental meetings), and facilitate the dissemination of data on the illegal wildlife trade across the region. SAWEN's intergovernmental meetings are regularly attended by a number of its international donors (for example, the World Wildlife Fund, the U. S. Agency for International Development) and law enforcement partners (for example, the International Police Organization, Convention on International Trade in Endangered Species of Wild Fauna and Flora, United Nations Office on Drugs and Crime). SAWEN and the International Police Organization Environmental Security Programme organized a Regional Investigative Meeting on Wildlife Crime recently in May 2018.

4.7 According to its *Retrospective Report 2011–2014*, SAWEN has developed an action plan for the next five years specifying the activities to be implemented through the secretariat (SAWEN 2015). 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 wider enforcement communities; (iii) a wildlife crime database management information system to efficiently collect, organize, and disseminate wildlife crime data (allowing systematic analysis and sharing knowledge and intelligence to improve law enforcement); and (iv) additional resource mobilization to secure funding for the secretariat's activities in the future. The former project officials IEG interviewed for this PPAR acknowledged the benefits SAWEN provides to regional cooperation in halting the illegal wildlife trade but could not provide any evidence of enhanced regional enforcement.

Creation and Operationalization of Specialized Wildlife Crime Enforcement Agency

4.8 Even before the SRCWP in Bhutan was developed, the government of Bhutan's FPSU was already functioning as a wildlife surveillance and enforcement agency. The SRCWP provided awareness raising and enforcement training annually to staff at the FPSU and other national enforcement agencies (and at five particular entry and exit checkpoints) to strengthen their capacity for wildlife crime enforcement (Bhutan 2016)⁴ and supplied updated equipment and technology (for example, thermal imaging cameras, handsets, laptops) to enhance its ability to monitor and regulate wildlife crimes. To this end, the project supported the upgrading of the Bhutan Forest and Wildlife Enforcement Database (BhuFED) to collect and manage data on

wildlife crime in Bhutan and coordinate with the regional enforcement database managed by SAWEN. IEG was unable to interview any staff from the FPSU to evaluate its performance in enforcement of wildlife crimes, collect any available data on wildlife enforcement from the BhuFED, or verify the results in the field of this capacity building in the FPSU.

Collection and Dissemination of Data on Wildlife Crime

4.9 As indicated previously, SAWEN developed a wildlife crime database to gather and organize data in the region. In Bhutan, the FPSU deployed the Web-based BhuFED to collect and manage such data in Bhutan. The FPSU supplied SAWEN's wildlife crime database management information system with relevant data from its BhuFED database, making these data available to the other countries in the South Asia region.

Strengthening of the Legal and Regulatory Framework

4.10 Consistent with the subobjective's emphasis on enhancing incentives to tackle the illegal wildlife trade, the government of Bhutan strengthened its wildlife protection laws and regulations by substantially increasing the penalties and fines for crimes involving poaching and participating in the illegal trade. The government of Bhutan, for example, amended the Bhutan Penal Code to make poaching of protected species a fourth-degree felony offense subject to significant fines and imprisonment of up to three to five years (Bhutan 2016).⁵ It also revised the conservation law to add provisions imposing fines for illegal wildlife trade (Bhutan 2016).⁶ The ICR indicates that project-supported training in the wildlife enforcement agencies and better tracking of wildlife crimes will result in collection of these increased fines. (World Bank 2017). IEG was unable to collect information on the wildlife trade in Bhutan or evidence that the increased penalties and fines were having the intended effect.

Capacity Building and Training Across Enforcement Agencies

4.11 More than 900 staff members in the FPSU and other enforcement agencies received training in effective wildlife crime enforcement. This included training for performing enhanced patrolling using the Spatial Monitoring and Reporting Tool (SMART) to curb poaching and allocate scarce resources effectively by identifying areas most at risk in Bhutan's protected areas and GRFs. The use of SMART in patrolling was piloted in Bhutan's Royal Manas National Park in November 2013. Based on its effectiveness in addressing the complexities of managing and monitoring poaching and wildlife crime, the tool was subsequently adopted in protected areas and GRFs nationwide. SMART patrolling integrates data from ranger patrols, analyzes local poaching trends, and measures progress in law enforcement to help rangers improve their effectiveness.

Overall Rating

4.12 The efficacy of this subobjective is rated **high**.

Subobjective 2

4.13 The second subobjective was building and/or enhancing shared capacity, institutions, knowledge, and incentives to tackle other selected regional conservation threats to habitats in border areas.

4.14 The project's success in meeting this subobjective is based on its accomplishments with respect to the intermediate outcomes involving applied research and innovative activities that address conservation threats to habitats (knowledge and shared capacity). The government of Bhutan prepared a range of knowledge and research products, which they shared with the other SAWEN member states. These achievements were complemented by intermediate outcomes involving conservation investments (institutions) promoting innovative pilot activities designed to strengthen conservation and management in protected regions in border areas and in the region as a whole. Finally, the project delivered several achievements (incentives) dealing with human-wildlife conflicts (HWCs) and species conservation in border areas. The following elaborates on these achievements.

Knowledge Products and Research Prepared

4.15 Under the SRCWP in Bhutan, the WCD produced several research and knowledge products (for example, scientific surveys of snow leopards and tigers, protected area management plans, Management Effectiveness Tracking Tool [METT] assessments, and a State of Parks report) that it shared with the other South Asian countries. The National Snow Leopard Survey 2014–2016 (2016), for example, employed new wildlife camera trap survey techniques to estimate snow leopard populations in high mountain areas and trained WCD field survey staff in camera handling, stationing, monitoring, and retrieval. The results of the survey, in terms of estimated snow leopard population and density, indicate that Bhutan is a stronghold for snow leopard conservation in the Eastern Himalayas (Ministry of Agriculture and Forests 2016).⁷ Similarly, Bhutan's first national tiger survey in 2014–2015 (2015) employed the same camera trap technology to estimate tiger populations living in the country's forests (Ministry of Agriculture and Forests 2015).⁸ Three of Bhutan's protected areas are known to have tiger populations. The 2016 State of Parks report indicates that the WCD undertook a two-year effort in 2015 to develop and implement a management effectiveness assessment system for its protected area network (WCD 2016). The WCD adapted the METT for application in its protected area system (the Bhutan METT+) and used it to perform assessments at all the protected areas.^{9,10} The surveys of iconic species, State of Parks report, and METT assessments contributed to the region's overall knowledge of and specific data on these topics and emphasized the need for transboundary collaboration in wildlife protection.

Identification and Completion of Conservation Investments and Pilot Activities

4.16 The SRCWP in Bhutan made various investments to strengthen conservation and management in protected areas and GRFs with regional conservation benefits. Several of these

investments included building and strengthening physical infrastructure to address regional conservation threats. For example, the project established two wildlife rescue centers: a Western Wildlife Rescue Centre located in Taba, Thimphu, and another Southern Wildlife Rescue Centre located in Jigmeling, Sarpang. The two centers are fully operational and have now rescued and treated hundreds of wild animals. The project also made investments to enhance the visitor center at the Royal Botanical Park in Lamperi, which plays an important role in raising public awareness on illegal poaching and the wildlife trade.

Investments Addressing Human-Wildlife Conflicts

4.17 Part of addressing “other selected regional conservation threats” under the project involved providing incentives to address HWCs to promote human-wildlife coexistence. The SRCWP in Bhutan implemented several interventions (including sound and light alarms, trip wire fencing, electric fencing, and community-based insurance) in HWC hotspots, areas where HWCs posed threats to human life and agricultural production. Partial evidence for this subobjective showed that the designated activities made a potential contribution to improving HWC outcomes. The project invested in installing about 158 kilometers of solar electric fences at 47 HWC sites. In 2013, the WCD performed an assessment of the effect of these electric fencing investments in six *gewogs* (group of villages) and reported (i) increased yields of major crops as a result of the fencing and (ii) reduced numbers of nights spent guarding crops and property (WCD 2013). The success of these HWC interventions led the assessment report to recommend scaling up such investments in other HWC hotspots. The maintenance of the electric fences presents a particular challenge, however, as noted in the government of Bhutan’s Independent End-Term Evaluation Report (Bhutan 2016). Unless the fences are properly maintained, they can become ineffective and thus threaten the sustainability of the fencing investments. Although project beneficiaries have the responsibility for maintaining the fences, the report stated they do not always exercise this responsibility as necessary. Unfortunately, the project never performed any cost-effectiveness analysis of alternative (less costly) deterrence options, including organized guard patrols. The other HWC intervention the WCD assessed was the community-based livestock insurance program. The project established 15 new Gewog Environmental Conservation Committees and provided them seed money to deliver livestock insurance schemes to local farmers. These committees have traditionally provided cooperative wildlife management in their areas and, in many cases, contribute to prevention and management of HWCs. However, unlike the electric fencing, the livestock insurance program did not catch on except in one gewog, where it received full support.

Overall Rating

4.18 These achievements of the SRCWP in Bhutan demonstrate that Bhutan has made considerable progress in building and enhancing institutions, both regionally (SAWEN) and nationally (FPSU), strengthening management and technical capacity (in law enforcement agencies, protected areas, GRFs) and disseminating knowledge (BhuFED, SMART patrolling,

Bhutan METT+ in protected areas) to curb the illegal wildlife trade in the region. Thus, the project's achievements regarding the first subobjective are **substantial**. Regarding the second subobjective, however, the evidence of project achievement is less clear cut. As noted in the Relevance of the Objectives section, the second subobjective is not as clearly delineated as that of the first. Despite this, the project made substantial achievements in delivering knowledge products (snow leopard and tiger surveys, Bhutan METT+), implementing several conservation investments (visitor information and wildlife rescue centers), and scaling up successful HWC interventions (electric fencing).

4.19 The efficacy of this subobjective is rated **substantial**.

5. Efficiency

5.1 Rating the efficiency of the SRCWP in Bhutan, much as for the project in Bangladesh and Nepal, poses several challenges. The ICR rated the efficiency substantial, concluding that the project was efficient in achieving outcomes in a cost-effective manner. However, the ICR did not base it on the cost-benefit analysis used in the project appraisal document because of the lack of data on the reduction in the illegal wildlife trade. Instead, the ICR evaluated the returns on investments in two subprojects financed by the SRCWP and concluded that the cost-benefit ratios were favorable as follows:

- Investments in developing the interpretation center and visitor facilities in the Royal Botanic Park (\$154,017) resulted in increased revenues from entry fees and other services that would permit recovery of the investment costs in 8 to 10 years. The ICR properly notes that these cost-benefit calculations do not reflect the intrinsic value of biodiversity conservation and other ecological services enhanced by the investments, but it fails to indicate that the investments in the Royal Botanic Park represent a very small portion (seven percent) of overall project costs (\$2.25 million) and cannot be taken to represent the cost-benefit ratio of the project as a whole.
- Investments in erecting 158 kilometers of electric fencing (\$530,000) to prevent wildlife invasions and resulting crop damage on 3,655 hectares of farmland resulted in economic benefits for the local farmers. The ICR indicates that these returns could be substantial (based on previous studies) but notes that the project did not attempt to estimate the crops protected or their economic value. Without an accurate estimation of the economic benefits to farmers as a result of the fencing, it is difficult to calculate the cost-benefit ratio of this investment. Furthermore, this analysis does not incorporate the long-term costs of repair and maintenance of the electric fences mentioned in the Subobjective 2 section.

5.2 The challenges raised for the efficiency analysis described previously suggest that, as with the project in Bangladesh and Nepal, a quantifiable cost-benefit analysis yielding

defensible rates of return is not possible. However, the SRCWP in Bhutan does offer limited evidence of some level of cost-effectiveness for the project (for example, the role of SAWEN in reducing wildlife crime, training activities to improve patrolling and management in protected areas, snow leopard and tiger population surveys). Country level efficiencies in Bhutan are demonstrated in the following:

- Bhutan's investments in SAWEN provide cost-effective returns in reducing poaching and curbing illegal wildlife trade as a result of its collaboration with the widely recognized enforcement efforts of the International Police Organization, its association with the other major international wildlife protection organizations, its regional capacity building program for wildlife enforcement agencies, and the continued participation of India in regional coordination and enforcement.
- The investments in electric fencing appear to be cost-effective based on local design, procurement, and cost per kilometer compared with an international alternative and based on a rough calculation of economic benefits from crops protected from damage by the fencing. The latter is qualified depending on the costs of maintenance and repair of the fencing, and consideration of the next-best alternative to the fencing.
- The investments in facilities at the Royal Botanic Park appear to be cost-effective given the relatively modest cost of the improvements and the increased revenues from park entrance fees, which could recover the investment costs within 10 years.
- Finally, the project appears to have been cost-effective in strengthening the capacity in the WCD and FPSU to implement measures to tackle the illegal wildlife trade in Bhutan and to manage the country's protected areas and critical wildlife habitats. Although difficult to quantify, the longer-term benefits of this strengthened capacity, combined with the government of Bhutan's commitment to sustainable financing for wildlife conservation and "high-value, low-impact" ecotourism, could prove considerable.

5.3 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 Bhutan's development philosophy and its national and international commitments to biodiversity and wildlife conservation, complemented by the World Bank's commitment to Bhutan's sustainable development, the relevance of the SRCWP's objective is rated **substantial**. However, the shortcomings in the project's results framework, grants

program, and APL design 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 first subobjective **high** and its second subobjective **substantial**. Having completed most of its objectives on time and within budget, the project's efficiency in use of project funds is rated **substantial**.

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

Risk to Development Outcome

6.3 The sustainability of the achievements of the SRCWP in Bhutan remains questionable without project financing and technical support. The ICR rates the risk to the development outcome **moderate** based on the following: (i) The institutional arrangements established under the project (for example, SAWEN at the regional level, FPSU at the national level) are already advanced in their implementation. In addition, the government of Bhutan has agreed to provide national budget financing for continuation of such project-financed activities as BhuFED, the FPSU, and the two wildlife rescue centers. (ii) The project investments that will accrue benefits to local communities are likely to be sustainable for that reason. The investments in electric fences to protect farmers from wildlife damage to their crops and investments in tourism facilities to attract tourism expenditures are examples of this. However, the lack of attention paid to maintaining project assets, in particular the electric fences, is cause for concern (this concern was raised in the third-party evaluation of the project). Furthermore, the tourism investments in remote areas, where access is only possible during part of the year, are not likely to see a full return on the investment.

6.4 Although the sustainability of the SRCWP in Bhutan's achievements remains uncertain, IEG's interviews with former project officials provided significant evidence to warrant a moderate rating for the risk to development objective. The former project officials emphasized the government of Bhutan's continuing commitment to project objectives and to maintaining the postproject practices and activities originally initiated by the project. They also noted the government of Bhutan's efforts to secure permanent financing for sustaining wildlife conservation. The evidence they provided is explained subsequently.

6.5 The uptake and dissemination of SRCWP-initiated technologies, such as electric fencing to curb HWCs, indicate a continuing effort to sustain project accomplishments. As noted previously, the project invested in installing approximately 158 kilometers of electric fences to provide protection from threats to human life and livelihood and damage to crops, livestock, and other property from wildlife (snow leopards, tigers, elephants, and wild pigs, deer, and monkeys) for more than 3,500 hectares of cropland. The WCD's 2013 assessment of the effect of these investments in six gewogs reported (i) increased yields of major crops as a result of the fencing ranging from a low of one percent to highs of 75 to 100 percent across the gewogs (with

an overall average of 73 percent), and (ii) reduced numbers of nights spent guarding crops and property ranging from 0 to 100 percent (with an overall average of 66 percent). The assessment quantified these benefits in economic terms using local market rates for crop sales and a portion of daily wages for nights spent guarding (WCD 2013, 24–27). Based on the benefits demonstrated in these gewogs, the assessment recommended (i) scaling up electric fencing investments (using a locally designed Singhe Gewog method) in other areas with wild pests, (ii) replacing solar-powered fences with electric fences, and (iii) fully training caretakers in the maintenance and repair of electric fences (WCD 2013, 31).

6.6 Similarly, the uptake and dissemination of innovative practices initiated by the project (for example, SMART patrolling using GPS-based monitoring of wildlife distributions and poaching, use of the Bhutan METT+ to gauge protected area management) provide additional evidence of ongoing efforts to sustain project achievements. As noted previously, SMART patrolling was first piloted in Bhutan in Manas National Park in 2013. Based on its effectiveness in managing and monitoring poaching and wildlife crime in the pilot area, WCD decided in June 2016 to extend SMART patrolling to all protected areas in Bhutan. Similarly, the WCD developed the Bhutan METT+ to perform management assessments in Bhutan’s protected areas and has employed the tool in assessing all the protected areas in Bhutan. These examples provide evidence of leveraging of the project activities toward wider adoption.

6.7 The government of Bhutan’s innovative efforts to secure permanent financing for its biodiversity conservation and protected area management provide ample evidence of its commitment to postproject financing of the wildlife conservation activities initiated under the SRCWP in Bhutan. In discussions with former project officials, IEG learned about the ambitious new Bhutan for Life project the government of Bhutan has committed to with the World Wildlife Fund, the Green Climate Fund, and other partners and donors (Bhutan for Life 2016). Announced in November 2017, the Bhutan for Life project creates a fund of \$43 million (including a grant of \$26.6 million from the Green Climate Fund) to permanently protect Bhutan’s network of protected areas and the critical habitats they include. Combined with the government of Bhutan’s commitment to provide \$75 million over the next 14 years, this will total \$118 million available during this period to finance proper management of Bhutan’s protected areas and protection of its iconic wildlife. (For comparison, Bhutan’s “high-value, low-impact” ecotourism attracted some 62,000 international or nonregional tourists in 2017, who contributed approximately \$80 million to the country’s gross domestic product, \$22 million of which was revenue for the government of Bhutan collected through the Sustainable Development Fee.) The Bhutan for Life fund is designed to make annual contributions, starting high and declining to zero over the 14-year period, during which the government of Bhutan will gradually increase its funding to match the decline in donor funding. In the end, Bhutan should be positioned to fully fund management of all its protected areas on its own.

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

Bank Performance

Quality at Entry

6.9 The SRCWP in Bhutan was hastily prepared in 2011, in less than three months between concept review and Board approval. Although the World Bank's support to the borrower's needs in addressing regional conservation threats eventually led to sound project outcomes, the haste in preparation may explain the project design shortcomings that initially impeded project implementation. This short preparation period precluded conducting critical background studies for the project (for example, assessment of implementation capacity of the government of Bhutan, the economic analysis for the project, current status of the illegal wildlife trade) and resulted in postponing design of critical project investments until actual implementation of the grant funding mechanism. These shortcomings in preparation resulted in the substantial delays the project experienced in early implementation. The government of Bhutan's limited institutional capacity resulted in delays in formation of the project coordination team, preparation of the operations manual, and execution of procurement processes in general. Postponing the design of project investments exposed 89 percent of the credit to the risk of delaying implementation, which materialized in the difficulties in obtaining, processing, and approving subproject investment proposals. In the end, the competitiveness of the investment grant funding was called into question because seven of nine investments were implemented by the WCD itself. Finally, as with the SRCWP in Bangladesh and Nepal, there were problems with some of the indicators in the results framework that finally had to be revised during the project restructuring in 2015.

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

Quality of Supervision

6.11 The World Bank carried out five supervision field missions and produced 14 Implementation Status and Results Reports throughout project implementation in an attempt to identify and help resolve issues that adversely affected project implementation. In particular, World Bank supervision focused on overcoming the shortcomings and resulting delays noted previously, appointing a proactive project coordinator, completing the operations manual, expediting project procurement, and developing suitable investment proposals. To its credit, the World Bank team ensured proper management of the project's fiduciary responsibilities despite the borrower's limited capacity and lack of previous experience with World Bank projects. Although the World Bank's midterm review and subsequent project restructuring came late in project implementation (only one year before project close), they enabled the project to achieve the PDO despite the delays suffered at the outset of the project. In sum, the

World Bank's supervision provided the technical and fiduciary support necessary to ensure timely delivery of project outputs, particularly with respect to regional cooperation and ultimate achievement of project outcomes.

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

6.13 Based on the ratings for quality at entry and quality of supervision, the overall Bank performance is rated **moderately satisfactory**.

Borrower Performance

Government Performance

6.14 The government of Bhutan's commitment to the project was high; however, its performance, particularly in the initial years, did not demonstrate that commitment. As the government of Bhutan's counterpart for the project, the Ministry of Agriculture and Forests struggled to overcome the delays in implementation experienced after project start. The project coordination team took years to finalize (the project coordinator changing three times in the first two years) and the Project Implementation Steering Committee, who should have played a critical role in project operations, did not even meet during the first two years of project implementation. Beyond these shortcomings, there were also initial delays in procurement (attributed to a misunderstanding of the IDA credit) and in preparation and adoption of the operations manual, both of which were the result of limited technical and operational capacity in the Ministry of Agriculture and Forests. Although some of these issues may be the result of the World Bank's accelerated project preparation for the SRCWP in Bhutan (without a full assessment of the government of Bhutan's project implementation capacity), the Ministry of Agriculture and Forests should have worked more aggressively to overcome the challenges to project implementation within its control.

6.15 Government performance is rated **moderately unsatisfactory**.

Implementing Agency Performance

6.16 Within the Ministry of Agriculture and Forests, the WCD served as the Project Management Unit for the project, designating core staff to oversee implementation of the project and management of project activities. Once the team was established, it proved effective in day-to-day management, monitoring, and reporting for project implementation. This is evidenced by the fact that, despite significant delays early in implementation, the project managed to commit the entire \$2.25 million credit 18 months before project close. To its credit, the project management team worked to establish a solid network of field units to facilitate implementation and monitoring of field activities, which proved critical to completing the various subprojects identified for the project.

6.17 Implementing agency performance is rated **satisfactory**.

Justification of Rating for Overall Borrower Performance

6.18 Despite a very hesitant start, the project worked its way to a strong finish in the end. Project performance steadily improved over the life of the project, resulting in implementation of all planned activities approximately on schedule and within original project costs. The project remained in compliance with the World Bank's fiduciary and environmental and social safeguard requirements; neither audits nor safeguard policy reviews raised any major issues.

6.19 Based on the ratings for government performance and implementing agency performance, overall borrower performance is rated **moderately satisfactory**.

Monitoring and Evaluation

6.20 **Design.** The design shortcomings in the SRCWP in Bhutan's results framework, described in the Relevance of the Objective section, resulted in problems in the initial design and implementation of the M&E system for the project. The basic problem was that the original results framework lacked appropriate indicators for measuring progress in achieving the PDO, particularly with respect to illegal wildlife crime. The restructuring, undertaken at the request of the government of Bhutan in 2015, included revisions to the results framework indicators to provide more appropriate targets for measuring project performance at the regional and national levels and for tracking progress in achievement of the PDO. More details on the revisions to the results framework are provided in section 2.10. But, the restructuring came in the last years of the project, which meant that the SRCWP in Bhutan began its initial years of implementation without a fully effective M&E system.

6.21 **Implementation.** Implementation of the SRCWP in Bhutan's M&E system was hindered by the indicator problems explained previously in design and by the initial delays in project implementation, which meant there was little to monitor and evaluate in the project's first years. As a result, there is limited information on M&E implementation other than the challenges faced in data collection. In the end, some national and subproject data were collected, aggregated, and reported to the World Bank and to the government of Bhutan. The challenges with the data were recognized by the midterm review and were addressed in revisions to the results framework made in the 2015 restructuring.

6.22 **Use.** In the end, the SRCWP in Bhutan turned the M&E system into an effective monitoring tool, using the revised indicators to track progress in implementation at the regional, national, and subproject levels. Regional meetings, at least in the case of SAWEN, were used to compare national data and experience among the South Asian countries to address implementation progress. The M&E system clearly improved after the revisions to the results framework made in the 2015 restructuring. Reports from contractors and consultants were used to track progress in the field, whereas progress reports formed the basis for stocktaking,

recalibrating, and taking corrective action at the project level. The data collected from the field helped in deciding on the selection of subprojects to be funded under component 2. Data generated from the tiger and snow leopard surveys contributed to assessing their conservation status at the regional level. Similarly, data (and feedback) from trained officers helped scale up the training activity beyond the project targets.

6.23 The quality of project M&E is rated **modest**.

7. Lessons

7.1 **Robust upstream work that builds strong and sustained commitment by all governments participating in a regional approach to wildlife protection is a necessary condition for success.** In the case of the SRCWP in Bhutan, there was strong regional collaboration with Bangladesh, Nepal, and India on strategic wildlife conservation issues generated in regional meetings on curbing the illegal wildlife trade even before the project began. These regional meetings proved quite effective in synchronizing national policies, sharing useful experiences, coordinating wildlife law enforcement approaches, and disseminating effective new practices for adoption by the participating countries.

7.2 **Projects involving multicountry collaboration on global public goods are challenging to design and implement, making the provision of adequate preparation time critical for conducting necessary analyses of participating country commitments and capacities.** The SRCWP in Bhutan was hastily prepared, at the expense of a thorough analysis of the government of Bhutan's institutional capacity to implement the project and the capacity of the nongovernmental sector to develop adequate technical proposals and implement appropriate investment subprojects. This resulted in initial implementation delays that had a significant bearing on project implementation and progress.

7.3 **Projects piloting new approaches to multicountry collaboration on transboundary wildlife management present challenges that require a carefully designed results framework to measure and track progress in achieving project objectives.** In the case of the SRCWP in Bhutan, the initial indicators for the development objective and intermediate outcomes were not well developed at the design stage and required revision to capture project progress in achieving objectives clearly and accurately.

7.4 **Projects designed to build national institutions and capacity for multicountry collaboration on transboundary wildlife management require a long-term investment to ensure successful outcomes.** In the case of the SRCWP in Bhutan, the use of an APL to support regional initiatives for wildlife protection was well-advised, recognizing that the APL 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 long-term technical and financial support (more than a one-project, five-year

commitment). 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. A strategic opportunity was missed.

¹ The reformulation of the project development objective indicators involved (i) a revised target of “one annual meeting held after statute approval” for the indicator regarding a regional mechanism for addressing regional wildlife trade, (ii) a revised target of “five products” for the indicator regarding knowledge products developed and shared among SAWEN countries (replacing regional protocol with India), (iii) a revised target of “one institution” for the indicator regarding wildlife crime control institutions established (replacing regional enforcement protocols with India), (iv) a revised target of “one pilot initiative” for the indicator regarding initiatives implemented that address transboundary wildlife issues, and (v) a target number of “five” for the new indicator regarding number of activities contributing to tiger conservation.

² The first window was intended to give priority to investments such as protected area management offices, wildlife rescue centers, and information and visitor centers. The second window was to target pilot programs in human-wildlife conflict management, development of ecotourism opportunities, pilot programs in greening infrastructure in and around protected areas and government reserve forests (GRFs), and pilot programs in the conservation of endangered flagship species. The design was based on a competitive, demand-driven approach that would reward the innovation and efficiency of the managers of the protected areas and GRFs in selecting the activities that would receive support.

³ In the end, the rationale for the adaptable program loan (APL) in this case is not clear. Typically, an APL involves project phases sequenced over time, with appropriate milestones to be reached and lessons to be learned that trigger advancing to the next phase of projects. In this case, the first and second phases involved completely different countries, were largely contemporaneous, and were not followed by another project phase.

⁴ The SRCWP trained 200 staff in 2012, 425 in 2013, 150 national enforcement agency staff in 2014, and more than 130 staff in 2015 (Bhutan 2016).

⁵ Fines range from \$15,400 (Nu 1,00,000) for killing a tiger (the highest among the tiger range countries) to \$1,550 (Nu 100,000) for killing a common gecko, which is hunted indiscriminately in southern Bhutan along the border with India.

⁶ Fines for illegal trade are based on the weight of animal parts (Nu 750/kg, \$11.54/kg) and the mode of transport (Nu 100,000, \$1,389 per vehicle; Nu 3,000, \$42 per pony; Nu 100,000, \$1,389 for other means of transport).

⁷ In a 90-day sampling period, the survey identified 63 individual snow leopards. Scientific modeling yielded an estimate of 96 snow leopards for the entire country, with an estimated abundance range of 79 to 112 individuals.

⁸ The survey identified 68 individual adult tigers and 8 tiger cubs. Scientific modeling yielded an estimate of 103 tigers for the entire country, with an estimated abundance range of 89 to 124 individuals.

⁹ The State of Parks Report indicated that the results of implementing the Bhutan METT+ showed that the protected areas in Bhutan were well managed, but their effectiveness was limited by a lack of adequate resources (both financial and technical) and by gaps in the monitoring and research data. This limits

Wildlife Conservation Division's ability to understand the impact of conservation in Bhutan, react to changing conditions, and adapt management to improve efficiency and effectiveness.

¹⁰ Bhutan Management Effectiveness Tracking Tool Plus. Final Version 2016. Developed by N. Dudley, D. Lham, S. Stolton, and S. Wangchuk. Thimphu, Bhutan and Bristol, UK: Wildlife Conservation Division and Equilibrium Research.

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Appendix A. Basic Data Sheet

Strengthening Regional Cooperation for Wildlife Protection in Asia

Table A.1. Key Project Data

Financing	Appraisal Estimate (\$, millions)	Actual or Current Estimate (\$, millions)	Actual as Percent of Appraisal Estimate (\$, millions)
Borrower	0.0	0.0	0
IDA	2.25	2.25	100

Note: IDA = International Development Association.

Table A.2. Cumulative Estimated and Actual Disbursements

Disbursements	FY12	FY13	FY14	FY15	FY16
Appraisal estimate (\$, millions)	0.5	1.4	1.6	2.2	2.25
Actual (\$, millions)	0	0.4	1.2	1.5	2.05
Actual as percent of appraisal	0	28.5	75	68	91

Table A.3. Project Dates

Event	Original	Actual
Initiating memorandum	—	—
Negotiations	—	—
Board approval	—	06/17/2011
Effectiveness	—	10/19/2011
Closing date	08/31/2016	08/31/2016

Table A.4. Staff Time and Cost

Stage of Project Cycle or Year	World Bank Budget Only	
	Staff time (no. weeks)	Cost ^a (\$, thousands)
Lending		
2011	13.00	85,120
Supervision/ICR		
2012	20.61	89,986
2013	19.75	54,223
2014	16.68	65,471
2015	15.35	64,082
2016	7.31	45,507
2017	6.87	45,617
Total	99.57	450,006

Note: ICR = Implementation Completion and Results Report.

a. Including travel and consultant costs.

Table A.5. Task Team Members

Name	Title ^a	Unit	Responsibility or Specialty
Nathalie Weier Johnson	Senior Environmental Specialist	GENDR	Task Team Leader
Farhat Jahan Chowdhury	Environmental Specialist	GENDR	Co-Task Team Leader
Andrew Zakharenka	Natural Resources Management Specialist	GEN06	ICR Task Team Leader
Anupam Joshi	Senior Environmental Specialist	GSU06	Specialist
Sumith Pilapitiya	Team Member	GENDR	Specialist
Marinela E. Dado	Team Member	GENDR	Specialist
Tanvir Hossain	Procurement Specialist	GGODR	Specialist
Savinay Grover	Financial Management Specialist	GGODR	Specialist
Darshani De Silva	Senior Environmental Specialist	GEN06	Specialist
Valerie Marie Layrol	Senior Operations Officer	GEN06	Specialist
Joseph Daulat Siagian	Senior IT Assistant	SECPO	Specialist

Note: ICR = Implementation Completion and Results Report.

a. At time of appraisal and closure, respectively.

Appendix B. List of Officials Interviewed

Institution or Organization	Name	Title
Government of Bhutan		
Wildlife Management Division	Mr. Sonam Wangchuk	Former Project Director
Wildlife Management Division	Ms. Dechen Lham	Former Project Coordinator
World Bank		
	Ms. Nathalie Weier Johnson	Task Team Leader, GENDR
	Mr. Andrew Zakharenka	Natural Resource Management Specialist, GEN06