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LESSONS FROM CHILE,  
GUATEMALA AND PERU

**GUIDE TO IMPROVING  
THE BUDGET AND  
FUNDING OF NATIONAL  
PROTECTED AREA SYSTEMS**

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# **Guide to Improving the Budget and Funding of National Protected Area Systems**

**Lessons from Chile, Guatemala and Peru**

**July 2012 – April 2014**

Marlon Flores and Andrew Bovarnick

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# Acknowledgements

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# Foreword

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Institutions in charge of National Protected Area Systems are engaged in an enterprise of unprecedented relevance—conserving their nation’s natural heritage for the use, benefit and enjoyment of present and future generations. They are the stewards of pristine public land, ecosystems and ecosystem services that are indispensable to ensure long-term sustainable development of their nations. Equally important is the National Protected Area Agencies’ responsibility of managing, with the highest professional standards, the public funding allocated to them to conserve these indispensable natural resources.

The United Nations Development Programme (UNDP), through projects financed by the GEF and other sources, has supported the establishment, consolidation and effective management of protected areas in Latin America and the Caribbean for almost two decades. One crucial action to ensure effective protected area systems in the region and thereby enable the provision of key ecosystem services vital for development, is to provide them with stable and predictable financing.

To assist governments of the region to address the issue of financial sustainability of their protected area systems, UNDP produced, in 2007, a Financial Sustainability Scorecard as an instrument to assist managers and decision makers to identify and present financial needs and gaps in a systematic and periodic manner. More recently, in 2010, UNDP in collaboration with The Nature Conservancy, produced the Report “Financial Sustainability of Protected Areas in Latin America and the Caribbean: Investment Policy Guidance”. This report compares and aggregates official financial data and qualitative insights about the health of Protected Area financial sustainability for 20 Latin American and Caribbean (LAC) countries. Following these studies and practical tools, we are pleased to present this new “Guide to improving the budget and funding of protected area systems: Lessons from Chile, Guatemala and Peru”, an effort to continuing to help governments address the

challenging issue of providing adequate long-term funding to national systems of protected areas.

The United Nations Development Programme (UNDP) and its national partners feel fortunate to have the opportunity to work with National Systems of Protected Areas with the common objective of improving how annual budgets are formulated and executed. The preparation of this Guidance represents a small but unique undertaking in the history of national systems of protected areas in Latin America. We are grateful to the Moore Foundation and the Government of Spain for their generous support for the preparation of this Guidance.

The development of this guide is also an important step in building political understanding of the value of investing in protected areas. Analyzing how institutions that manage protected areas prepare and execute budgets is a critical step to strengthen transparency and accountability standards, and therefore, professionalize financial management. Improving protected areas budgets will also help to prioritize operations, improve spending quality, demonstrate return on investments, and secure adequate and sustainable long-term central funding. We trust that this new Guidance will be a useful tool to budgeting officials and decision-makers of National Protected Areas System Agencies across the LAC region.



Jessica Faieta  
*UN Assistant Secretary-General and  
UNDP Regional Director for Latin America and the Caribbean*

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# Acronyms and Abbreviations

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AECID	Spanish Agency for International Cooperation (Spain)
CER	Cost-Effectiveness Ratio
CPA	Central Planning Agency
CONAF	National Forestry Corporation (Chile)
CONAMA	National Environment Commission (Chile)
CONAP	National Protected Areas Council (Guatemala)
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
EII	Economic Impact Indicator
FPI	Financial Performance Indicator
GDP	Gross Domestic Product
GEF	Global Environment Facility
HPP	Hydropower Plant
IBA	Incremental Budgeting Approach
INAB	National Forestry Institute (Guatemala)
LAC	Latin America and the Caribbean
MoE	Ministry of Environment
MoF	Ministry of Finance
MoEF	Ministry of Economy and Finance (Peru)
MH	Ministry of Hacienda (Chile)
MINAM	Ministry of the Environment (Peru)
NGO	Non-Governmental Organization
PA	Protected Area
PAS	Protected Area System(s)
PBB	Priority-Based Budgeting Approach
PROFONANPE	National Fund for Natural Protected Areas (Peru)
RBCI	Results-Based Conservation Indicator
RBI	Results-Based Indicator
RBM	Results-Based Management Framework (of the GEF)
RSCLAC–UNDP	Regional Service Centre for Latin America and the Caribbean—UNDP
SERNANP	National Service of State Natural Protected Areas (Peru)
SERNAPESCA	National Fisheries Service (Chile)
SIGAP	Protected Areas System of Guatemala
SINANPE	National System of State Natural Protected Areas (Peru)
SNAP	National System of Protected Areas (Chile)
SNAPSE	National System of Natural Protected Areas (Chile)
TNC	The Nature Conservancy
TSA	Targeted Scenario Analysis
UNDP	United Nations Development Programme

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# PART I: Introduction

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## 1.1 Summary and key findings

Over the last decade, the United Nations Development Programme (UNDP) and The Nature Conservancy (TNC) have supported governments across Latin America in strengthening the financial sustainability of their protected area systems (PAS). Much of UNDP's support to countries has been made possible through finance from the Global Environmental Facility (GEF). Through the experience and multi-country analysis the importance of central budgets in PAS financing was identified. Based on this, UNDP, in collaboration with TNC, initiated and implemented the Protected Areas Budget Negotiation Support Project (BNSP), hereafter the Project, between July 2012 and April 2014. The Project was implemented with finan-

cial support from the Gordon and Betty Moore Foundation and the Government of Spain. The key objectives of the Project were to provide technical support to improve the formulation, negotiation, and approval of budgets of national PAS in the three pilot countries: Chile, Guatemala, and Peru; and to systematize lessons through a guide to improving the budget and funding to PAS. The project filled an important gap related to PA finance. In order to achieve the above-indicated objectives, the Project examined four separate stages of the PAS budget cycle:

1. Formulation;
2. Negotiation;
3. Approval; and
4. Execution and Evaluation.

This guide presents lessons learned on how to increase central budget allocations to PAS through a strengthened budget negotiation process, based on the experiences and results generated by the Project. The analysis of the PAS budgeting cycle in the three target countries revealed weaknesses in each phase, partially as a result of major functional disconnects between each phase. The most important findings and recommendations of the Project include:

### **General**

- PAS budgets are not decision-maker focused, i.e., current budgets cannot be used by the Ministry of Environment (MoE) and the Ministry of Finance (MoF) to make the case for increasing the PAS budget.
- There is a serious lack of adequate data to support the PAS budget cycle, including conservation results and related realistic costs, financial needs, and economic impact and results-based indicators.
- Protected area (PA) managers are generally neither consulted nor prepared to provide inputs during the preparation phase of a PAS budget (although Peru is an exception to this finding).
- The formulation of a PAS budget often fails to meet overall national budget formulation deadlines, early in the year (January-April). Therefore, the budget is typically based on the budget of the previous year.

### **Phase 1- Budget formulation**

- PAS annual budgets tend to be based on previous years' allocations and use an incremental budgeting approach, i.e., requesting a percentage increase (which may result in marginal increases, depending on availability of funds). Investment priorities are generally not addressed during formulation.
- Under the incremental budgeting approach/budget ceiling, PAS agencies are not required to prepare long-term investment plans (5+ years). The lack of long-term investment plans is one of the reasons why the MoF can cut the PAS budget, as there are no visible consequences.
- To consider budget increases, the MoF, which approves all budgets, needs to see how the PAS supports local and national economic development and that they are a cost-effective investment; therefore, PAS budgets must include clear information on con-

servation results, cost efficiencies, and a development return on investment.

- When allocating public funds, the MoF mainly considers opportunity cost, i.e., how they can best spend their funds; estimates of PAS financial needs alone are not sufficient to result in budget increases.
- Although PAS have been working on PA economic valuation in recent years, the formulation and introduction of economic impact indicators have been neglected. PAS still do not use indicators that capture and report their contribution to economic development; hence budgets cannot demonstrate their value to MoF.
- Currently, the MoF does not require these indicators and does not communicate to PAS which indicators would be useful for budget increases. Conversely, PAS do not reach out to understand what the most important "decision-maker" (the MoF) needs in order to increase budget allocations.
- Some PAS, such as in Peru, have started to shift from traditional activity budgeting to results-based budgeting.
- International and national initiatives to promote increasing government funding to PAS mainly focus on increasing the recurrent costs component of the PAS budget, and neglect capital investments and increases through the formulation of public investment projects.
- PA management plans are not used to support budget planning.

### **Phase 2- Budget negotiation**

- Revision and negotiation of the PAS budget at the executive level (MoF) is critical, because this is where major cuts or increases to the PAS budget may occur. In such case, the MoE may decide to pass the cut to the PAS budget because the PAS usually ranks lower compared to the priority of other departments of the MoE. Commonly, when the MoE manages protected areas, the PAS budget competes with other departments of the MoE that may have higher priority.
- The negotiation phase is a unique opportunity to present data that is normally not included in a PAS budget.
- Budget reviewers at the MoF are open to receiving explanations and supplementary information



through face-to-face meetings to better understand PAS needs and the benefits from investment.

- The MoF welcomes economic development indicators linked to conservation results and supplementary data from PA valuations.
- PAS budgets may be reviewed by a budget specialist at the MoF who has limited understanding of conservation results, so key data could be translated into economic impacts. For example, eliminating poaching of spectacled bears, at a minimal possible cost, may also result in increased tourism-related benefits, such as new jobs, increased revenue, and tax revenue from the tourism sector.

### ***Phase 3 - Approval at the legislative level***

- Once a PAS budget has been cleared at the executive level (MoF), it needs approval at the legislative level and is sent to a congressional budget commission for review. During negotiations, the PAS budget, which is usually part of the Ministry of Environment (MoE) budget, may be discussed by legislators who are not interested in supporting budget increases in the MoE budget and who also have limited understanding of conservation results.
- PAS budgets are commonly “hidden” within the budget of the MoE (when the PA agencies are under the MoE), and legislators from the budget commissions may not have time to look at the details of the PAS budget. Legislators can also object to overall budget

increases in a sector agency such as the MoE, and this can negatively affect the PAS budget.

- Therefore, comprehensive communications campaigns to support the PAS budget approval process may decrease the likelihood of budget cuts at the legislative level and can assist legislators requesting increases. This communications campaign should address both legislators and the public (voters) and be focused on how investments in PAS contribute to economic and social development.

### ***Phase 4 - Budget execution and evaluation***

- Budget execution is evaluated by comparing the level of spending to what was allocated, to determine if there are any unused funds that can be reallocated either within the MoE or directly by the MoF to another sector.
- PAS budget evaluation closely follows what has been approved, because budget allocations are not based on results or priorities; rather, the majority of funds are allocated to recurrent costs, such as salaries, benefits, and operations. A budget execution evaluation could be more effective when the PAS budgets is linked to results. Peru, for example, is in the process of shifting to results-based budgeting.
- PAS budgets lack results-based indicators (conservation, cost-effectiveness, and economic impact), and there is no mechanism within the MoF or MoE to evaluate the impact of investment in the PAS when budget

execution is evaluated. This creates a vicious circle, as data is then not produced for the next budget cycle to show the impacts of the funding investment.

### Performance indicators

- As PAS budgets are not linked to measurable performance indicators, the MoF cannot assess return on investment (ROI). The types of indicators that the MoF is interested in assessing when considering budget allocations include:
  - **Results-based conservation indicators (RBCI).** These are metrics used to measure and communicate the expected conservation results on the basis of programmes and activities that are included in a PA management plan or annual operating plan. Examples of such indicators might include: a 50-percent reduction in the rate of illegal hunting of spectacled bears, a 25-percent reduction in area with invasive species, a 50-percent reduction in illegal logging for firewood, a 30-percent increase in annual visitation to a specific PA, or a 50-percent increase in area covered with endemic plant species.
  - **Cost-effectiveness indicators (including efficiency and transparency).** These indicators measure financial viability by looking at whether the PAS produced adequate results for the amount of money spent, for example whether the PAS met the proposed conservation results using minimal and diversified financial resources. Efficiency indicators measure whether PAS meet their proposed results with a minimum amount of time, effort and technical skills. These indicators can also be used to assess improvements in transparency, such as providing greater access to information within the PAS financial management systems to key stakeholders (e.g. MoF, the legislature, local governments, communities, the public, and donors).
  - **Economic impact indicators (EII).** These indicators assess the economic impact of conservation interventions in PAS, for example, how sustainable ecosystem management in PAS results in increased and sustainable output of economic sectors that depend on PA ecosystem services. Examples of such indicators might include: percentage of new jobs in the tourism sector, level of increased productivity of irrigated agriculture, percentage in-

crease in hydropower production, or percentage increase in tourism tax revenues to government.

The lack of these performance indicators to support PAS budgets reinforces the notion that PAS are only a cost to the economy, with no benefit.

More detailed recommendations for how to improve each part of the budgeting process and how to formulate and use results-based indicators are provided in Parts II and III of this guide, respectively.

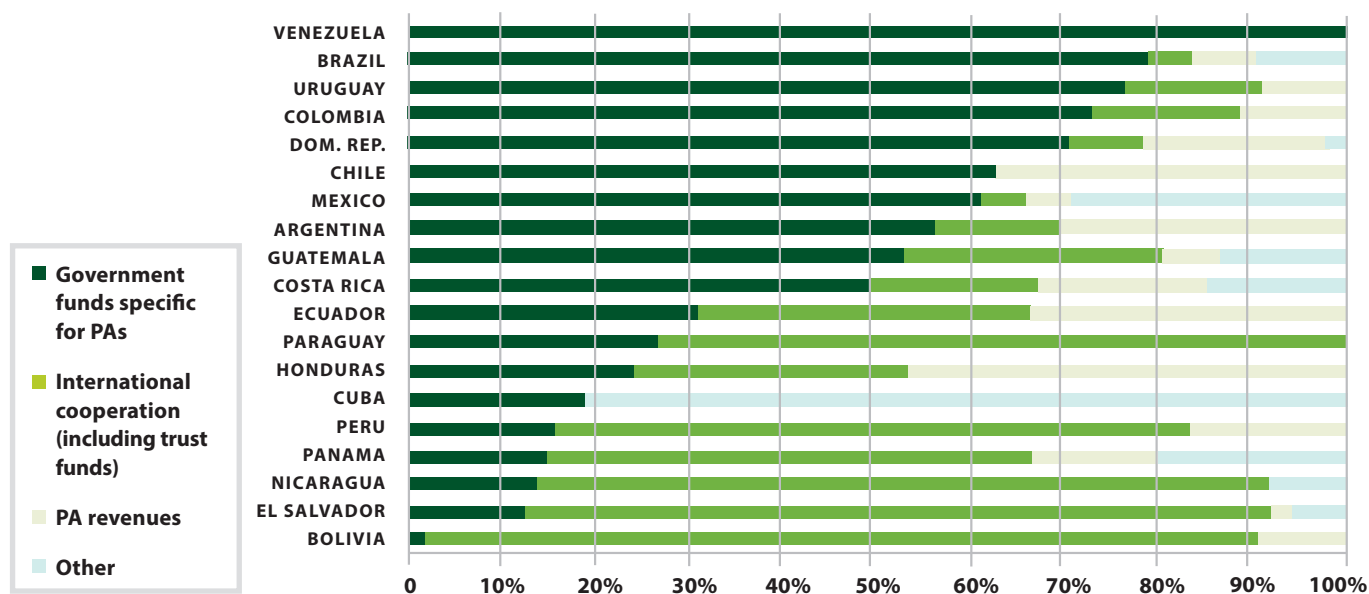
## 1.2 Purpose of this guide

This guide serves to:

- explain the different steps involved in the formulation and approval of a PAS budget;
- identify weaknesses in the PAS budget planning process;
- provide budget planners at the PAS level with a tool for assessing the quality of their PAS budget, and understanding the financial risks of taking no action to improve the PAS budget formulation process;
- offer recommendations for improving each of the budget preparation phases and formulating results-based indicators;
- assist government officials in developing a budget that ensures returns from investment in PAS;
- provide recommendations for developing a PAS budget that is easier to negotiate and fund at all levels of government; and
- prompt further debate and actions to improve the quality of PAS budgets and public funding allocations.

## 1.3 The importance of optimizing protected areas system central budgets

The national budget is the most important financial management tool for all central sector agencies, including the MoE and the PAS. It is both a financial instrument that channels the government's spending priorities and the mechanism to ensure that the necessary financial resources are available to meet the country's economic and social development goals.

**Figure 1. PAS budget composition in selected Latin American countries**

Source: Bovarnick et al. (2010)

Public funding to PAS from the national budget is a core component of PAS funding and key to achieving financial sustainability of national PAS. On average, according to 2010 data, public funding accounts for about 60 percent of the available funding for PAS in Latin America. In the same year (2010),<sup>1</sup> public funding accounted for more than 50 percent of the total budget in Chile and Guatemala, while Peru was below average with less than 20 percent.<sup>2</sup> Figure 1 provides an overview of the PAS budget composition and percentage in the Latin America region in 2010. Public funding levels can dramatically increase in a given year, depending on the government's occasional short-term political will to support PAS. This was the case in 2013 in Ecuador, which received more than 90 percent of its total PAS budget from public funding that year.<sup>3</sup>

Although central government funding represents the highest share of total funding to PAS in many countries in the Latin America region, this has by no means guaranteed budget stability. PAS budgets are easy targets for budget cuts. Funding to PAS is also generally inadequate. On average, existing central funding to PAS covers less than what is needed for basic conservation management, representing only about 36 percent of the financial needs for the optimal funding scenario.<sup>4</sup> According to the World Bank (2010), current PAS' budgets are not keeping pace with the needs and international cooperation is unlikely to fill the gap. On average, Latin America and the Caribbean governments allocate to protected areas just 1 percent of national environmental budgets.

1 Bovarnick et al. (2010).

2 A more recent unpublished study "Evaluation of Costs and Income Options to Sustainably Finance SINANPE," prepared by the Universidad del Pacífico (December, 2014) indicates that in 2013 SINANPE's ordinary income (from the central budget) reached 46.7% of the total income; and has had an average annual increase of 12.7% between 2010-2015. However, the study notes that despite the annual increases, the financial deficit continues to escalate due to the decrease in funding from international cooperation and SINANPE's growing recurrent costs (staff salaries and benefits).

3 Mid-Term Review of the UNDP-supported GEF-financed project; Financial Sustainability of SNAP. UNDP (2014).

4 The **basic management scenario** (basic level) is the minimum level of funding required to operate key conservation programmes while meeting basic programme requirements to sustain functions of ecosystems in protected areas. The **optimal management scenario** (optimal level) is the ideal level of funding required to operate all programmes to reach and sustain optimal functions of ecosystems in protected areas. Optimal describes the ideal state of the programme if all necessary funding, personnel, equipment, and other resources were available to achieve that state. This would ensure achievement of short-, medium-, and long-term goals for the protected areas, in accordance with the highest environmental, social, and economic standards (Flores et al., 2008).

**Table 1. Public expenditure in selected sectors in the LAC region, as a percentage of GDP**

COUNTRY	% Public Spending on Health (2004)	% Public Spending on Education (2002-2005)	% Public Spending on Military (2005)	% Public Spending on Protected Areas (2008)
Argentina	4.30	3.80	1.00	0.005
Bolivia	4.10	6.40	1.60	0
Brazil	4.80	4.40	1.60	0.006
Chile	2.90	3.50	3.80	0.003
Colombia	6.70	4.80	3.70	0.005
Costa Rica	5.10	4.90	NA	0.055
Cuba	5.50	9.80	NA	0.005
Dominican Republic	1.90	1.80	0.50	0.02
Ecuador	2.20	1.00	2.60	0.002
El Salvador	3.50	2.80	0.60	0.002
Guatemala	2.30	NA	0.30	0.013
Honduras	4.00	NA	0.60	0.006
Mexico	3.00	5.40	0.40	0.005
Nicaragua	3.90	3.10	0.70	0.01
Panama	NA	NA	NA	0.006
Paraguay	2.60	4.30	0.70	0.002
Peru	1.90	2.40	1.40	0.001
Uruguay	3.60	2.60	1.30	0.002
Venezuela	2.00	NA	1.20	0.006

Source: Bovarnick et al. (2010)

Public expenditure on PAS averages only 0.008 percent of GDP in the Latin America region.<sup>5</sup> Currently, few PAS generate their own revenue, for example through PA entry fees, and fewer are permitted by law to retain self-generated revenue to increase their budgets.

In most countries in Latin America, for example, the impact of tripling the PAS budget to meet optimal funding levels would still bring it to an average of only about 0.024 percent of GDP. Table 1 shows the current relationship between public spending on PAS in Latin America and spending in other priority sectors, as a percentage of GDP. In Chile, Guatemala, and Peru in 2008, public spending on PAS represented only 0.003 percent, 0.013 percent and 0.001 percent, respectively, of GDP. It is im-

portant to recognize, however, that there is no single optimal level of investment in PAS as a percentage of GDP, because PAS financial needs may vary according to their managerial objectives and a range of variables, such as the cost of reducing threats to PAs. Thus, spending in PAS as a percentage of GDP, in both developing and developed nations, is merely referential.

Nevertheless, to date, not much has been done to assess and improve PAS budget allocations from government, with few exceptions. PAS managers have argued for decades that PAS are not a high government priority and that other sectors, such as education, health, and public works, have the government's attention, making it almost impossible to negotiate budget increases. The rest of this guide shows how to rectify this problem.

5 Bovarnick et al. (2010).

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## PART II: Context of the National Budgeting Process

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A country's national budget is prepared annually by its MoF<sup>6</sup> (or Hacienda, depending on the country). The national budget defines how money is allocated to sectors such as education, health, security, science and technology, agriculture, energy, public works, and the environment, as well as other areas, including pensions and debt payments. The budget is executed by various ministries and other government agencies.

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6 The term Ministry of Finance is used to describe the government agency responsible for reviewing the PAS budget proposal before it goes to the legislature. In Chile and Colombia, this is the Ministry of Hacienda, while in Peru it is the Ministry of Economy.

The content of the national budget indicates priorities for government spending, for all central agencies such as the ministries of the executive branch, as well for the legislative branch and the judiciary and Supreme Court. Each year, the MoF prepares and publishes the contents of the approved national budget, to enable the public to better understand the national budget and the use of public resources.

Government agencies use different approaches to prepare the budget, including the **incremental budgeting approach (IBA)** and **priority-based budgeting**

**Table 2. Institutional context of PAS budgets**

Country	Officially recognized PAS	Main agency managing PAS	Under the Ministry of Environment?	Budgeting approach
Chile	National System of Natural Protected Areas (SNASPE)	CONAF (Corporación Nacional Forestal)/Ministerio de Bienes Nacionales* (National Forestry Corporation/Ministry of National Assets)	No (CONAF is a private entity under the Ministry of Agriculture)	IBA/ceiling defined by the MoF
Guatemala	Protected Areas System of Guatemala (SIGAP)	CONAP (Consejo Nacional de Áreas Protegidas (National Protected Areas Council))	No (under the Office of the President)	IBA/ceiling defined by the MoF
Peru	National System of State Natural Protected Areas (SINANPE)	SERNANP (Servicio Nacional de Áreas Naturales Protegidas del Estado) (National Service of State Natural Protected Areas)	Yes	IBA/ceiling defined by the MoF

\* The Ministry of National Assets is responsible for maintaining and updating the cartographic, legal, and statistical information of fiscal assets, including the state-owned protected areas.

**(PBB).**<sup>7</sup> IBA, which is the most common approach used for developing PAS budgets, provides a basis for managing annual income (annual budget allocation from the government) and expenses. Budget increases under IBA may be feasible when there is, for example, an overall annual increase in revenue of the national budget (e.g., 5-10 percent) compared with the previous year. In such a case, the PAS budget may increase accordingly, and budget increments can be distributed among major areas, such as salaries, fuel, maintenance and utilities, and equipment and vehicles. However, when central budget allocations decrease, across-the-board cuts are common practice under IBA, even though such cuts are not strategic and may undermine the achievement of the PAS goals. Increases or decreases in the national budget determine the “budget ceiling”<sup>8</sup> that each agency will use to prepare its budget. An agency’s budget ceiling may also be equal to the budget of the previous year (i.e., no

increases or decreases), even in years where the overall national budget has increased. In such a case, an optimized PAS budget will be useful to negotiate an increase.

The PAS budget is often part of the MoE’s budget. However, while this is the case in Peru, the annual PAS budgets in Chile and Guatemala are not linked to the MoE budgets. In Chile and Guatemala, protected areas are managed by autonomous agencies or depend on agencies other than the MoE. Table 2 shows the institutional context of PAS budgets and their budgeting approach in the three pilot countries, Chile, Guatemala and Peru.

All three PAS agencies in the pilot countries (Chile, Guatemala, and Peru) use IBA or a ceiling defined by the MoF. However, in recent years, governments have begun to push for prioritization and results-oriented budgeting approaches; this is the current case in Peru.

The different stages in the formulation and approval of the national budget together make up the annual budget cycle, a dynamic and flexible process through which the government programmes, executes, and evaluates its financial activities and budget. Typically, the MoF budget office is responsible for leading the annual budget cycle, with support of a central planning agency. To this end, the budget office prepares a range of guidelines and technical norms so that the budget cycle is completed in a timely manner. The PA budget cycle comprises four phases:

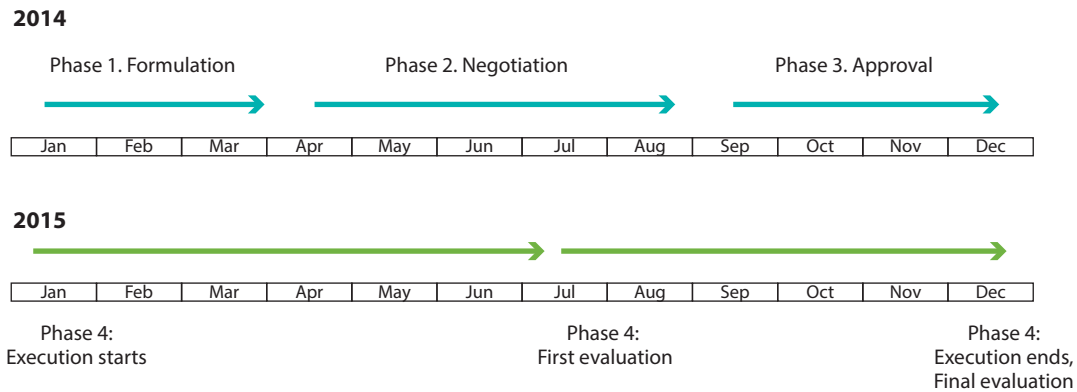
- Phase 1: Formulation
- Phase 2: Negotiation

7 **Priority-based budgeting (PBB)**, is also known as budgeting by results. Through this approach, PAS could identify the most important strategic priorities among conservation programmes and rank the programmes according to how well they align with their priorities. Because resources could subsequently be allocated in accordance with the rankings, it is critical that PAS management plans clearly define priorities among their conservation activities, programmes, objectives, goals, and outcomes. Strategies to introduce PBB to PAS are included in Annex 1.

8 The term “budget ceiling” most commonly applies to national budgets. Nations calculate budget ceilings on an annual basis, in accordance with revenue generated through taxes, fees, fines, and other sources. With a budget ceiling in mind, the government allots funds for all public projects for the coming fiscal year. Governments can raise budget ceilings by raising taxes: [http://www.eshow.com/info\\_8403809\\_budget-ceiling.html#ixzz2vah9u55d](http://www.eshow.com/info_8403809_budget-ceiling.html#ixzz2vah9u55d).



**Figure 2. PAS budgeting cycle in Chile, Guatemala, and Peru (2014-2015)**



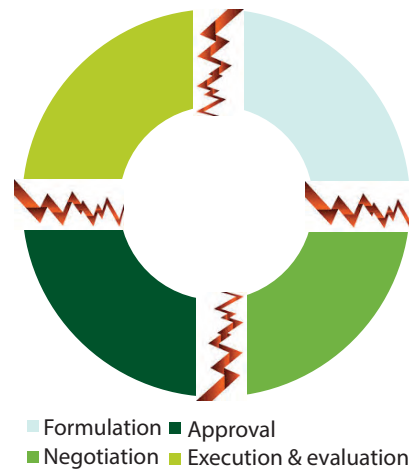
- Phase 3: Approval
- Phase 4: Execution and evaluation

The actual planning process, which includes Phases 1-3, takes place during the first year, while Phase 4 (execution and evaluation) takes place the following year (see Figure 2). There are no significant differences in the timing of the four phases among Chile, Guatemala, and Peru. The effectiveness and functional connections between each of these phases is critical for an effective annual budget cycle.

**Overall findings**

- A review of the PAS budgeting cycle in the three target countries during the planning stage of the Project revealed weaknesses in each phase, which are partially caused by major functional disconnects between the phases. Therefore, it is critical to improve each of these phases and their connectivity. Figure 3 illustrates the current gaps in the process, while Figure 4 shows an ideal situation after intervention.
- One of the major bottlenecks affecting the budgeting process, particularly the formulation phase, is the lack of adequate data to support PAS budgeting (i.e., expected conservation results, realistic costs and financial needs, cost reduction strategies, and results-based indicators). Furthermore, neither PAS agencies nor central budget planning agencies promote cost-efficiency in a systematic manner.
- Typically, PA managers are neither consulted nor prepared to provide inputs during the preparation phase of the PAS budget. PAS receive a budget that

**Figure 3. Current situation**



**Figure 4. Ideal situation after intervention**



**Table 3. Budget phases and institutions**

Phase	Institution	Deadline
1. Formulation	PAS/Ministry of Environment or other	January-April
2. Negotiation	Planning Agencies/ Ministry of Finance	May-September
3. Approval	National Congress	October-December
4. Execution and evaluation	PAS/Ministry of Environment or other	January-December (the following year)

has been prepared by the MoE based on the budget of the previous year, with a small increase or decrease depending on the situation of the annual national budget (i.e., incremental budget approach). In Peru, however, the PA agency SERNANP is institutionalising a coordinated system in which PA managers prepare a draft budget that is first sent to SERNANP's central office for processing, then to the MoE for review and finally to the MoF.

- The PAS budget is not decision-maker focused. Because of how PAS budgets are prepared, i.e., without accurate data on costs, financial needs and gaps, cost-reduction strategies, or concrete results supported by measurable indicators, neither the MoF nor the MoE are able to demonstrate to the legislature that there is a case for increasing PAS budgets. Additionally, the MoF and the legislature, in general, are less interested in increasing investments in activities or sectors that are not able to show clear returns on investments.
- When planning an intervention to improve the PAS budgeting process, timing is critical. The official deadlines of the national budgeting process set the framework for intervention. These deadlines are listed in Table 3 (there are small variations from country to country). The formulation of the PAS budget often fails to meet the formulation deadline early in the year. Therefore, the budget is typically based on the budget of the previous year. However, this may vary from country to country and year to year; for example in Peru, the process is improving.

Based on the programming deadlines indicated in Table 3, improving the 2017 PAS budget would require intervention beginning the year before, in January 2016; the impact of this intervention could then be assessed in early 2018. Thus, improving the PAS budget is a multi-year process.

Specific lessons and recommendations related to each Phase are provided in the next sections.

## Phase 1: Budget formulation

This is the most critical phase of the annual budget cycle. The formulation phase establishes the connection and interaction with the subsequent phases.

During formulation, each central agency, such as the MoE, prepares a budget proposal. As part of this process, all dependent units, including the PAS, prepare their own individual budget proposals. The full proposal will then go to the central planning agency and/or the MoF, where it is reviewed and adjusted to fit within the limits of the national budget. Each agency prepares its budget using the budget ceiling provided by the MoF or central planning agency, based on the forecast for the national budget.

Ideally, PAS agencies' objectives should be linked to the strategic objectives of the MoE, and the strategic objectives of the MoE should in turn be linked to the macro objectives of the National Economic Development Plan. This is necessary to establish a link between PAS/MoE budgeting and central planning priorities.

## Findings

The review of the formulation phase in the three pilot countries and subsequent discussions with authorities in MoF budgeting offices indicated that PAS budgets face a range of challenges<sup>9</sup> during this phase. Structural challenges, such as budget ceilings and different central government priorities, result in lower priority ranking. In addition, they face a number of qualitative challenges, including:

- In order to consider a budget increase, the MoF, which approves budgets, needs to see that PAS

<sup>9</sup> Challenges identified by senior representatives of the Ministry of Hacienda of Chile, MoF of Guatemala, and the MoF of Peru, during the First Regional Meeting of the Project in April 2013 in Panama City, Panama.

budgets include defined conservation results and demonstrate their cost-effectiveness.

- When allocating budgets, the MoF mainly considers the opportunity cost of investing in PAs; estimates of PAS financial needs are not sufficient to support budget increases. It is difficult for PA agencies to demonstrate returns on investments (ROI),<sup>10</sup> because the MoF usually measures ROI in financial and economic terms. Conventional financial accounts generally do not reflect environmental and socio-economic values, such as communities in and around PAs empowered to patrol and conserve the PA or to support nature-based tourism activities. Nevertheless, the MoF is interested in additional indicators that can show social impact.
- PAS do not use indicators to capture and report their contributions to economic development, making it difficult for PAS budgets to demonstrate their relevance. For example, high-level officials from the Ministry of Hacienda (MH) of Chile have noted that, under current circumstances, the PA budget sent to the Ministry of Hacienda is “dead on arrival.”<sup>11</sup> Although PAS have been working on PA economic valuation in recent years, the formulation and introduction of economic impact indicators have been neglected.
- Currently, the MoF does not require indicators/results-oriented budgets and does not communicate its needs to the PAS. Similarly, the PAS do not reach out to understand the needs of the key decision-maker (the MoF).
- In the pilot countries, representatives of MoFs noted that they are not inclined to increase recurrent costs that are not linked to specific results; however, the MoF may be more open to discuss increases for investment projects that have clearer results and measurable returns.
- Under the incremental budgeting approach, PAS agencies are not required to prepare long-term investment plans (5+ years), and PAS long-term investment needs are poorly shown in the long-term investment plan of the MoE. The long-term invest-



ment plan anchors the annual budgets, because it links short-term plans with long-term objectives (5+ years). This is important, because when long-term investment plans are available, the MoF can better assess the possible negative long-term impacts of reducing the PAS annual budget. The lack of long-term investment plans is one of the reasons why the door is permanently open for the MoF to cut the PAS budget without having to worry about the actual impact of the cut.

- PAS operational plans (PA management plans) are not necessarily elaborated in coordination with the PAS budgeting office or the budget office of the MoE,<sup>12</sup> and thus the cost of the PAS management plans is unknown to the budgeting authorities, both within and outside the MoE. PA technical staff is commonly isolated from the budget preparation process; this may happen even within the PAS agency. This has historically been the case in many PAS in Latin America. Box 1 provides an example of an improvement in Peru, achieved with the Project’s support, involving the development of a mechanism to systematize future budget increases.

10 ROI refers to a performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. To calculate ROI, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio.

11 Mentioned during the First Regional Meeting of the PA Budget Negotiation Support Project, Panama City, April 2013.

12 The lack of coordination between PAS operational plans and budgeting was observed in Ecuador during the Mid-Term Review of the UNDP-supported GEF-financed project: Sustainable Finance of the SNAP, Ecuador. January 2014. This deficiency is also evident in SERNANP in Peru and CONAF in Chile.

### Box 1. Improving budget formulation in SERNANP, Peru (2014)

SERNANP's annual budget was traditionally based on the budget of the previous year, with minor changes depending on the actual increase or decrease of the national budget. The Project was successful in improving the structure of SERNANP's budget programme (*Programa Presupuestal 0057*, under the new results-based budget approach). Before the Project, the budgets for SERNANP functional areas were prepared by SERNANP's budget office, without consulting the different technical directorates. Therefore, the budget lacked technical input and realistic needs. It was also submitted to the MoE with a significant delay, i.e., after the MoE's budget was delivered to the Ministry of Economy and Finance.

With project support, SERNANP produced a more realistic and timely budget, with an improved functional structure. This new structure was backed by the Budget Office and the Technical Directorates of SERNANP. The new budget structure for 2015 was supported by technical financial information and presented in the beginning of 2014, and was approved well in advance of the 2015 budget cycle. SERNANP's budget structure secured the inclusion of several new programmes and activities that will be financed starting in 2015. The exact additional funding was discussed during the 2015 budget negotiation phase and after. The new approved programmes to be funded include:

- participatory patrolling;
- evaluation of degraded areas and restoration processes;
- granting and renewal of permits to use renewable resources within natural protected areas (ANP);
- granting and renewal of permits to use landscape resources within ANP;
- developing ecosystem representation to improve the SINANPE;
- legal support for the defense of ANP; and
- development of tools for planning and development in ANP.

Peru is a good example of a PAS shifting to results-based budgeting that links budget and PA management plans/results.

- Although structural challenges (budget ceilings and different central government priorities) may be beyond the control of PAS, the qualitative issues listed above can be addressed. According to the MoF, by addressing the qualitative issues, PAS stand a better chance of increasing their budgets.

These findings constitute major weaknesses in the formulation phase of the PAS budgeting process.

### Recommendations

The following process and budgeting actions can help improve the formulation of PAS budgets:

- a) Prior to budget formulation, ensure that there is agreement between the PAS agency's budget de-

partment and the technical and field units on the purpose and scope of work needed to improve the PAS budget (including connecting conservation planners with financial planners within the PAS agency), as well as the need to collaborate with the Central Planning Agency and MoF.

- b) Establish a direct communication link with the MoF to understand what they want to see in the budget. It is important to identify the officer(s), or *sectorialistas*,<sup>13</sup> in the MoF who are responsible for reviewing and approving sector budgets for the MoE, including the PAS budget.

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<sup>13</sup> *Sectorialistas* are the sectoral analysts of the Budget Department within the MoF who are responsible for reviewing central sector agency budgets in Chile, Guatemala, and Peru.

- c) Establish an ad hoc working group to engage the leadership of the MoF. (See Annex 1 for recommended functions for this working group.)
- d) Develop criteria and select pilot PAs to test the optimized budgets, which will have better structure, adequate funding, priority-based resource allocation, cost-reduction strategies, and performance indicators. (See Annex 2 for strategies to introduce priority-based budgeting.) Testing optimized budgets at the site level can be a useful initial step before progressively moving to encompass the entire PAS.
- e) Assess, in a realistic manner,<sup>14</sup> the costs, financial needs and gaps of each of the PAs within the PAS; or in the targeted pilot PAs. This is critical for PAS financial managers to understand and document the need for additional money if necessary, and indicate how PA managers are planning to use the requested additional funding. However, it is important to note that, according to the senior officials of the MoFs in the pilot countries, although defining realistic financial needs and gaps is an important precursor, it does not provide sufficient grounds for increasing funding to PAS. It is vital for the MoF that the PAS measure and demonstrate cost-effectiveness.
- f) Assess and define opportunities for cost-reduction strategies. (Annex 3 provides a generic list of commonly used cost-reduction strategies.) The PAS budget must show how cost-reduction strategies are being applied, and what their estimated financial impact will be.
- g) Assess existing indicators included in PA management plans and indicators used in the budget office of the MoE (or the agency responsible for the PAS) to verify links between a) conservation results and budgets, and b) conservation results and economic impact, to determine where improvements are needed. If necessary, draft and propose new additional impact indicators. Define indicators in the following categories: conservation results, financial results (cost-effectiveness<sup>15</sup>), and economic impact



(linking conservation results with sectoral economic development and links to national development plans). Section III provides details on indicators.

- h) Sponsor workshops to increase the knowledge of PAS agencies, central planning agencies, and sectoral budget analysts about indicators for conservation results, cost-effectiveness, and sector-based economic impacts of a well-managed PAS. This could also be useful during Phase 2 (negotiation).
- i) Using economic impact indicators, link the PAS management plans and budget with sectoral development strategies (e.g., PAS with the national tourism development strategy and the budget of the Ministry of Tourism) and inform sector decision-makers. PAS in collaboration with sectoral agencies could carry out studies to generate and present data related to the management of ecosystems in a manner that is more relevant to decision-makers, for example time-bound information that weighs up the pros and cons of continuing with business as usual (BAU), where limited investment in the PAS and ecosystems management may result in degradation of ecosystem services and productivity decline, or following a more sustainable path with adequate investments

14 Realistic cost and financial needs and gaps could be defined by applying results-/activity-based cost accounting.

15 PAS cost-effectiveness refers to PAS being economical in the results produced for the money spent; i.e., PAS using the minimal financial resources needed to achieve the results deemed necessary to ensure long-term conservation and sustainable function of PAS ecosystems. PAS efficiency is also part of the PAS financial management equation; it implies the achieve-

ment of the necessary conservation results and ecosystem functions with the minimum waste of time, effort or skills.

in sustainable ecosystem management (SEM). The PAS could present data showing the implications of these two contrasting management strategies on the basis of relevant socio-economic indicators (both quantitative and qualitative) for a specific productive sector. Such information is indispensable for developing economic impact indicators. Details on economic impact indicators are included in Part III.

- j) In order to link annual budgets with long-term investment plans, PA managers should plan and cost-out PA management plans using a five-year horizon, indicating how resources will be allocated over the five-year period.

## Phase 2: Negotiations at the executive level: Ministry of Finance and central planning agencies

Implementing the above recommended actions in Phase 1 could pave the way for smoother negotiations with the

executive branch during Phase 2. The negotiation phase includes analysis, discussion, and approval at the executive level, generally by the MoF. In Guatemala, negotiation also includes the central planning agency (CPA).

Prior to negotiations with the MoF, the proposed PAS budget may be revised by the CPA. The PAS budget should be prepared to respond to any questions or concerns raised by the CPA or MoF. CPA representatives may be concerned about, for example, why the PAS budget proposal goes beyond the pre-established budget ceiling, while MoF concerns may include cost-effectiveness, efficiency, and how the PAS budget demonstrates “spending quality,” i.e., what the government gets out of increasing investment in PAS.

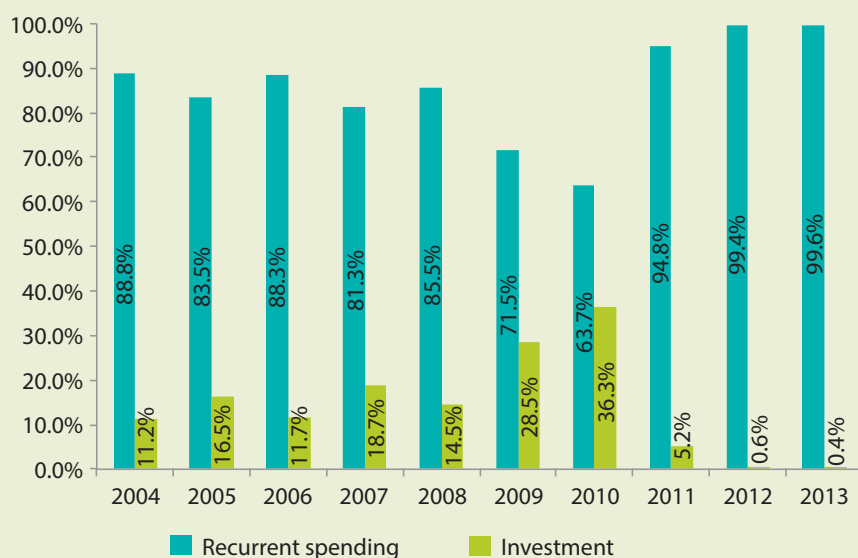
### Findings

A review of experience in Chile, Guatemala, and Peru highlighted critical lessons that should be considered during Phase 2:

### Box 2. Recurrent and investment costs trends in Guatemala’s PAS

On average, between 2004 and 2013, 85.6 percent of Guatemala’s PAS budget was allocated to recurrent costs, with a staggering 99.6 percent in 2013, as shown in the graphic below. The need for a more balanced allocation of resources between recurrent and investment costs is critical for improving PAS spending.

#### PAS spending distribution in Guatemala (2004-2013)



Source: Project study on PAS budget spending bottlenecks in Guatemala (2014), based on SICOIN data.

### Box 3. Budget negotiation in Peru

In Peru, the Project aimed to strengthen the investment component of SERNANP's budget by developing new categories of investment projects that could be approved by the Ministry of Economy and Finance (MoEF), as well as additional activities designed to improve the effectiveness of SERNANP's recurrent expenses.

SERNANP's Budget Programme 0057 includes two main components: recurrent expenses and capital investments. A pilot investment project was formulated (including results-based indicators) and is currently being considered for funding. Prior to this, new categories for investment projects were negotiated and approved by MoEF, allowing new investment projects to be developed and additional funding allocated to SERNANP's budget 0057, under the investment component. In order to institute this change, the MoEF will issue a simple "budget actualization." Budget actualizations are permitted throughout the fiscal year. The recently added categories include:

Category	Type of intervention	Investment purpose
Ecosystem services	Restoration	Water regulation services
		Soil erosion control services
Biodiversity services	Restoration	Biodiversity protection
	Installation	Habitats
	Improvement	Sustainable management
	Expansion	Conservation of genetic resources

Source: Prepared by the authors, based on the team's quarterly reports.

- Revision and negotiation of the PAS budget at the executive level (MoF) is critical, because that is where major cuts or increases to the budget may occur. In such case, the MoE may decide to pass the cut to the PAS budget because the PAS usually ranks lower compared to the priority of other departments of the MoE. Commonly, when the MoE manages protected areas, the PAS budget competes with other departments of the MoE that may have higher priority; for example, urban pollution control, clean energy development, or other climate change-related initiatives that are typically under the MoE's scope of work.
- As noted in the discussion on Phase 1, the PAS budget includes two major areas where the budget could be increased: recurrent spending and investments. Although the MoF will not favour increases to recurrent spending (because it is perceived as spending with little or no return), it may be more inclined to increase the investment part of the budget. There are several reasons for this. For example, it is easier for the MoF to estimate returns on capital investments, and in most cases PA recurrent costs are disproportionately larger compared to investments. The PAS of Guatemala is a good example of this unbalanced situation (see Box 2). It is recognized, however, that inadequate allocations to recurrent costs could result in, for example, avoidable acceleration in depreciation of PA infrastructure and expensive infrastructure rehabilitation. Therefore, a budget with balanced recurrent cost and investment allocations is more likely to be successful in negotiation.
- The MoF favours increases in the investments component of PAS budgets. During negotiations in Peru, the Ministry of Economy and Finance (MoEF) favoured the development of an investment project as a mechanism to increase the PA budget, not an increase of the already high recurrent costs component (see Box 3). In Chile, the Ministry of Hacienda also supported the development of a comprehensive web-based administration and financial management system (E-Parques) that will help to connect PAS management and finance (see Box 4).

#### Box 4. Chile's E-Parques management system

In Chile, as part of the PAS budget improvement process, the Ministry of Hacienda (Treasury) agreed to support a new investment project: E-Parques. E-Parques is a virtual PAS management platform that could solve some critical issues affecting PAs in Chile, including the lack of a central PAS agency or an official PAS, and the lack of coordination among several agencies managing PAS and using different management standards or sub-standards. E-Parques will establish advanced standards, including results-based indicators at different levels, to improve multi-agency PA management (e.g., CONAF, MoE, and SERNAPESCA). At the same time, it will facilitate flow and monitoring of funds, and support a modern financial management information system, including impact monitoring. To this end, the Ministry of Hacienda agreed to create the new budget line to support E-Parques, within the budget of the MoE. Because this new budget line (E-Parques) is already created and seed money has been allocated, negotiations in the next budget cycles may be faster (Project Implementations Reports, 2013).

- E-Parques is considered under the investment component of the budget of the MoE of Chile.
- One of the reasons why PAS lack funding is that central funding agencies consider PA management to be ineffective, with limited achievements. During negotiations, the MoF is reluctant to increase PAS funding because they cannot see results and economic benefits. For example, eliminating the poaching of spectacled bears,<sup>16</sup> at the minimal possible cost, may also result in increased tourism-related benefits, including new jobs, increased revenue, and more tax revenue from the tourism sector. Because of this perception, however, PAS budgets are considered a low priority compared to other sectors that provide such information.
  - During negotiation, the PAS budget may be reviewed by a budget specialist who has limited understanding of the new data provided in the PAS budget, for example conservation results. Budget reviewers at the MoF and central planning agencies are open to receiving explanations and supplementary information, such as valuation studies that show ROI linked to indicators, through face-to-face meetings. The negotiation phase is a unique opportunity to present data that is not normally included in the PAS budget.
  - Once the budget has been approved by the MoF and sent to the legislature, the chances of budget cuts are reduced. Nevertheless, past experience shows that PAS agencies working with national or international conservation NGOs (sometimes under ad hoc agreements) often bypass the MoF and may lobby for budget increases directly to the legislature. While this opportunistic approach may succeed in the short-term, when it is supported by PA-friendly law makers, budget negotiations are more productive and sustainable if they follow the established channels, i.e., MoF first and then the legislature. A good example of this is the experience of CONAP in Guatemala during the 2013 budget negotiation phase (see Box 5).

#### Box 5. PAS budget lobbying in Guatemala

In 2013, during the negotiation of CONAP's 2014 budget, CONAP started discussions with the MoF for an increase from USD 11.4 million (2012 level) to USD 17.1 million, over a three-year period. Simultaneously, environmental NGOs, reportedly in coordination with CONAP, prepared a larger increase request (USD 25.3 million) and directly lobbied in Congress. These budget increase requests were not supported by technical evidence of what would be the return on investment, nor with results-based indicators, and the approach did not achieve its objective (Second Project Progress Report, July, 2013).

<sup>16</sup> The spectacled bear (*Tremarctos ornatus*), also known as the Andean bear or Andean short-faced bear and locally as *jukumari* (Aymara), *ukumari* (Quechua), or *ukuku*, is the last remaining short-faced bear (subfamily *Tremarctinae*). Spectacled bears are the only surviving species of bear native to South America, and the only surviving member of the subfamily *Tremarctinae*.



## Recommendations

The following recommendations can help to improve the negotiation process during Phase II:

- a) Negotiations with the MoF could be much more productive if the PAS budget that is submitted to the MoF meets the cost-effectiveness criteria that have been agreed with the MoF during Phase 1 (mainly priority-based budgeting and results-based indicators). The MoF is the key “decision-maker” and the PAS budget and information that is presented with the budget (expected results of investments and related financial needs) must meet the decision-maker’s expectations. Cost-effectiveness criteria also could help the PAS to rank higher within the MoE’s priorities.
- b) PAS budgets should emphasize increased funding in the investment category and seek to establish a better balance between recurrent and investment costs. This could be achieved by improving (or expanding) the scope for investment projects that can be approved by the MoF, and the cost of new investment projects could be incorporated into the PAS investment budget component. This strategy produced good results in Peru (see Box 3).
- c) A PA-TSA<sup>17</sup> study can help address the lack of evidence-based information that demonstrates how well-managed ecosystems in PAS could sustain or improve productivity at the sector level. The PA-TSA could accurately capture the value of ecosystem services in the PAS by comparing the implications of two contrasting management approaches on the basis of relevant socio-economic indicators (both quantitative and qualitative) for a specific productive sector. Through the PA-TSA, the MoF, central planning agencies, the legislature, and private enterprises could see actual evidence of the risks and opportunities of opting for continuing with business as usual (BAU) or increasing funding to protect ecosystems in PAS. This data can help them to make informed policy and management decisions that may result in more effective and sustainable PAS management. Depending on the scope and objective of the study, other methods to value ecosystem services may be used, including cost-benefit analysis (CBA). However, TSA was designed to capture ecosystem services values beyond the scope of CBA.<sup>18</sup>
- d) The cost of assessing the economic impact of PAS could be an integrated annual investment programme with the PAS management plan and could address one or a group of PAs using a sector approach. This approach is likely to be favoured by the MoE and MoF. It recognized that assessments such as TSA could be a one-off study and do not replace monitoring through adequate results-based indicators.
- e) During Phase 2, it is critical to develop common ground among key stakeholders on the structure<sup>19</sup> and scope of results-based indicators, and the potential economic impact of well-managed PAS. This could be achieved by designing and implementing at least two ad hoc workshops, facilitated by an expert. These workshops could be tailored for the national or regional level and sponsored by the MoF or an international cooperation agency interested in PA sustainable finance.
- f) Successful negotiations with the MoF require that all public and private institutions seeking to improve central budget allocations for the PAS collaborate closely to avoid duplication of efforts and to address, in a systematic manner, the structural and qualitative aspects that undermine the PAS budget. PAS budgets should be realistic and, when requesting increments, the reasons for the increments must be well-founded and phased.

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17 Targeted Scenario Analysis (TSA) was developed by UNDP in 2013. It is an analytical approach to valuing ecosystems that is designed to help make the business case for sustainable policy and investment choices. TSA can generate and present data related to the management of ecosystems in a way that is more relevant to the choices facing both public and private decision-makers. The TSA approach is decision-maker and sector-focused, aimed at a target decision-maker from a specific sector who has the capacity to lead policy reform and investment decisions. The product of a TSA is a balanced time-bound presentation of evidence, for the decision-maker, that weighs up the pros and cons of continuing with business as usual (BAU) or following a sustainable development path in which ecosystems are more effectively managed. This alternate path is termed sustainable ecosystem management (SEM). The TSA methodology is available at: [http://www.undp.org/content/undp/en/home/librarypage/environment-energy/ecosystems\\_and\\_biodiversity/Targeted-Scenario-Approach-2013/](http://www.undp.org/content/undp/en/home/librarypage/environment-energy/ecosystems_and_biodiversity/Targeted-Scenario-Approach-2013/).

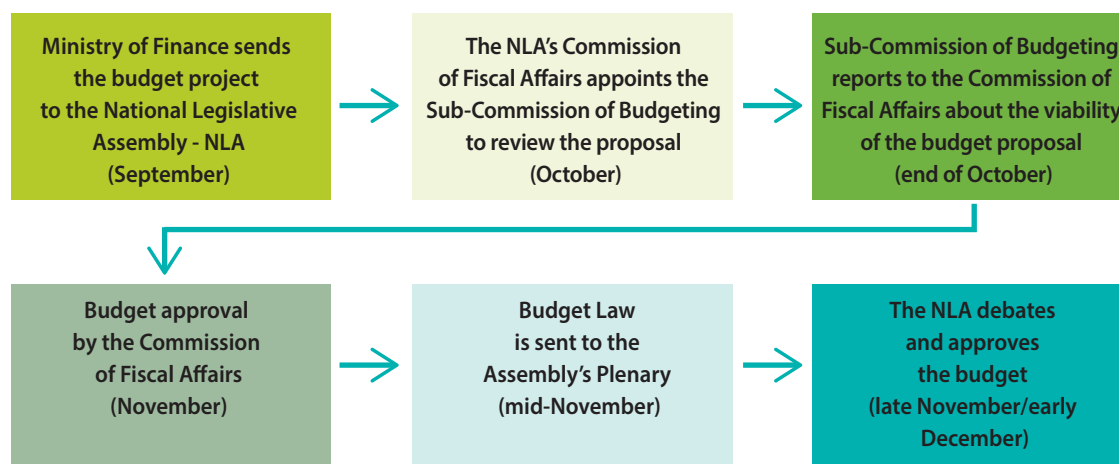
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18 Alpizar and Bovarnick (2013).

19 The structure of results-based indicators should follow the “SMART” indicator model when formulating conservation, cost-effectiveness, and economic impact indicators. Ideally, each indicator should be:

- Specific* – target a specific area for improvement;
- Measurable* – quantify or at least suggest an indicator of progress;
- Assignable* – specify who will do it;
- Realistic* – state what results can realistically be achieved, given available resources; and
- Time-related* – specify when the result(s) can be achieved.

**Figure 5. Different stages of the budget approval process by legislative level (example from Costa Rica, 2014)**



### Phase 3: Approval at the legislative level

Once negotiations have been completed at the executive level, the next hurdle is to get the PAS budget passed at the legislative level. The approval phase includes the discussion and approval by Congress or the Legislative Assembly. In Chile, Guatemala, and Peru, the National Legislative Assembly approves the “budget law,” which contains the national annual budget. Figure 5 illustrates the different stages of the approval process in Costa Rica; the process is similar in Chile, Ecuador, Guatemala, Peru, and many other LAC countries.

#### Findings

- Even with successful negotiations during Phase 2, additional negotiations may be needed at the legislative level, where the budget of the MoE/PAS can still be cut.
- During negotiations with the legislature’s budget commission, the PAS budget (usually part of the MoE budget) may be discussed by legislators who are not interested in supporting increases in the MoE budget, and who also have limited understanding of the new data provided in the PAS budget, such as conservation results.
- The annual budget law proposal sent by the MoF to the legislature includes both domestic revenue and external borrowing, when domestic revenue is not sufficient to meet all development needs. Therefore, budget allocations are based on what is available from domestic revenue and external borrowing. When budget shortages are evident, the legislature may reduce the proposed external borrowing, and this will have a negative impact across the board (all sector budgets could be reduced, particularly the MoE, which is often the most vulnerable).
- Having a strategic communications plan to support PAS budget negotiations at the legislative level may decrease the likelihood of budget cuts, especially after the budget has been approved by the MoF.
- Conventional communications campaigns (focused on biodiversity alone) are not new to PAS. However, in most cases, strategic information on cost-effectiveness and economic impact has been missing from PAS communication efforts.
- Communications campaigns should address different audiences, including legislators, the executive, and voters, so that there is a long-term transformational change in the way people perceive the role and contribution of the PAS to national development.

## Recommendations

The following recommendations can help increase the likelihood of PAS budget approval by the legislature:

- a) A political context analysis, to better understand the decision-making forces that may affect budget approval, is indispensable to better position the PAS budget in the legislature. For example, identification (followed by cultivation) of PA-friendly legislators who support the approval of the PAS budget without cuts can enhance the likelihood of approval. Box 6 includes key actions that can help assess the political context and build a productive partnership with decision-makers at the legislative level.
- b) A targeted communications strategy linked to the economic benefits of the PAS and sequenced to the phases of the budget negotiation cycle is vital. Annex 4 presents a five-step approach to developing an effective communications strategy. The strategy should use persuasive messages<sup>20</sup> tailored to decision-makers (MoF, members of the legislature) and the public in general. It is critical that the communications strategy:
  - provide a clear indication of how the PAS budget is aligned with institutional priorities, such as the strengthening of sustainable tourism development or securing the long-term provision of critical ecosystem services, e.g., water supply to urban areas;
  - indicate the changes in the composition of the PAS budget (recurrent and investment costs), financial needs and gaps;
  - clearly indicate how the PAS will use the requested additional funding and what will be the return on investments, as well as opportunity-cost arguments;
  - discuss how PAs plan to or are reducing costs and what strategies are being used;

### Box 6. Key actions for political context analysis and partnership building

- Define overarching goal, for example approval of new PAS budget proposal.
- Map key stakeholder institutions.
- Map and profile core and alternate decision-makers in key stakeholder institutions, including the legislature.
- Develop a flexible reform agenda (step-by-step approach).
- Identify leaders and establish direct relations between decision-makers and reform proposers.
- Programme meetings and prepare agenda for each meeting, tailored to the profile and needs of the legislator or decision-maker; include high-level central government officials, budget monitoring institutions, members of legislative commissions, and local government representatives.
- Prepare material for meetings, including fact sheets, very short PowerPoint presentations (introduction, justification of why reform is needed/ why a partnership is relevant to achieve the proposed reform, overall reform proposal, expected economic and social impact, similar experiences).
- Plan meetings (agenda and expected output).
- Develop guidelines for successful meetings, for example what needs to be known before a meeting, positive dialogue, non-confrontational positioning, provision of concise and accurate information, consideration of hierarchies, how to reach agreements.

Adapted from TNC's Relationship Building Strategy (*Estrategia de Relacionamiento*) (March 2012).

<sup>20</sup> Persuasive messages can be used to convince a stakeholder to change his or her beliefs and/or behaviour through a logical argument (rather than political pressure). The key elements of persuasive arguments include: a) a clear position, b) a specific audience, c) a convincing reason, and d) a rebuttal to your argument, to help expose faulty reasoning against your arguments. *Crafting Effective Persuasive Arguments*, University of Colorado (2014).

- include clear and concise messages on the economic impact of funding protected areas and ecosystems in the PAS, using the results of a TSA; and
- illustrate the above points, using selected protected areas.

## Phase 4: Budget execution and evaluation

Although budget execution and budget evaluation are fully linked, and are thus discussed together in this section, it is important to clarify that they are separate activities.

**Budget execution** is the set of financial transactions and operations necessary to use the money allocated to the PAS from the national budget. Budget execution is part of the budgeting cycle and is carried out from January 1 to December 31 of each year, with execution beginning after the government enacts the budget. Generally, budget execution involves five steps<sup>21</sup> (see Box 7). Budget execution is rarely used to monitor PAS effectiveness.

**Budget evaluation**, which involves analysis of the budget execution process, is the final stage of the budgeting cycle. It involves an assessment of whether public resources allocated to the PAS have been used appropriately and in accordance with the approved budget. To this end, and in order to support transparency and accountability, evaluation of the budget execution process should be carried out by an independent or autonomous specialized institution, for example, the autonomous national audit office. Evaluation also requires permanent monitoring, to assess performance and provide feedback to decision-makers, in order to avoid poor budget execution. In the pilot countries, conventional budget execution evaluation excludes effectiveness and impact.

The Project, due to time and budget limitations, did not intervene in Phase 4 of the budget cycle in the pilot countries. Nevertheless, by intervening in Phases 1 and 2, and in preparations for Phase 3, the Project was able to determine basic facts, reach conclusions and make recommendations, which are presented in the next section.

### Findings

- PA budget execution closely follows what has been approved. Because budget allocations are not based

21 The International Budget Partnership (IBP). The IBP collaborates with civil society around the world to use budget analysis and advocacy as a tool to improve effective governance and reduce poverty. <http://internationalbudget.org/budget-analysis/>.

### Box 7. Five Steps for Budget Execution

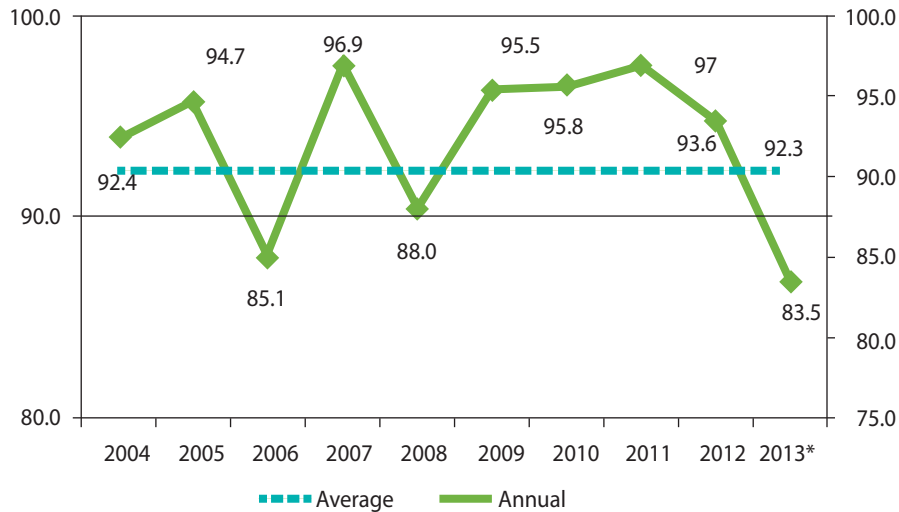
1. Funds are released to various line ministries (or departments/agencies), as per the approved budget.
2. Agencies initiate expenditures either directly or by procuring goods and services.
3. Payments are made for these expenditures.
4. Expenditure transactions are recorded in accounting books.
5. Execution reports (mid-year and end-of-year) are produced throughout the year, culminating in the closure of the accounting books and the production of year-end reports (the final execution report of a given budget year).

Source: International Budget Partnership (2013).

on results or priorities, the majority of funds are allocated to recurrent costs<sup>22</sup> such as salaries, benefits, fuel, and utilities (PA management plans are not usually taken into account during budget formulation). Therefore, it is not possible to use budget execution information to assess financial impact or the effectiveness of the PAS relative to actual spending.

- Budget execution evaluations can help determine if there are any unused funds that can be reallocated within the MoE or directly by the MoF to other sectors.
- Often PAS are not able to spend their entire annual budget allocation. Chile and Guatemala are cases in point. In Chile, CONAF reportedly spends only about 70 percent of the annual PAS budget, while in Guatemala, CONAP's budget execution rate declined from 97 percent in 2011 to about 83 percent in 2013 (see Figure 6). On the contrary, SERNANP in Peru managed to spend more than 90 percent of its allocated annual budgets in 2012 and 2013, although this is an exceptional case. Underspending is a critical issue, because if PAS underspend, then logically there is no need for budget increases.

22 Regular cost incurred repeatedly, or for each item produced or each service performed, for example, salaries, benefits, fuel, utilities, rent. <http://www.businessdictionary.com/definition/recurring-cost.html#ixzz2tyUgwRQ>.

**Figure 6. Trends in PAS spending in Guatemala (2004-2013)**

Source: Project study on PAS budget spending bottlenecks in Guatemala (2014), based on SICOIN data.

- Underspending is the result of the intersection of several factors, such as limited cash flow<sup>23</sup> and partial/delayed transfers from central banks, as well as internal factors, such as poor financial planning, bureaucratic procurement procedures, limited delegation of responsibility and limited staff capacity, slow internal transfers (e.g., within the MoE), limited systematization in accounting units, and poor accountability. In the pilot countries, one or several of these factors affect PAS spending. The Interamerican Development Bank<sup>24</sup> has noted that PAS are administered under complex hierarchy, rigid regulations and inflexible routines resulting from a range of laws and regulations created to increase public oversight on public funds and reduce corruption risks.
- PAS budgets lack results-based indicators related to budget execution, and there is no mechanism within the MoF or MoE to monitor and evaluate the impact of investing in PAS.

23 For the purpose of this report, cash flow in PAS refers to the movement of financial resources (money) into or out of the PAS budget to pay for recurrent and investment costs. It is usually measured during a specified, limited period of time. Cash flow analysis can be used for calculating parameters that provide information on the financial situation of PAS.

24 Dourojeanni and Quiroga (2006).

## Recommendations

The following recommendations can help strengthen budget execution and evaluation:

- Connect costs of PA management plans (including investment programmes) and annual work plans with defined results, in order to better balance recurring and investment costs.
- Fully assess PAS budget spending bottlenecks to determine specific intervention needs for addressing underspending.
- Ensure that PAS spend the full amount that is currently allocated. Thereafter, increases could be progressive, as execution capacity increases. Because the MoF is fully aware of the actual execution level in the previous year, PAS may need to explain during the negotiation phase how this problem is being addressed.
- Streamline expenses by introducing results-based resource allocation systems, and incorporate cost-effectiveness indicators in adequate monitoring protocols to measure PAS budget impact.
- Carry out biannual evaluations of PAS budget execution, to assess performance and feed evaluation results into planning for the next budgeting cycle.

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# PART III: Performance Indicators

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This section provides guidance on how to address the recommendation of Ministries of Finance to include results-based, cost-effectiveness, and economic impact indicators to support the PAS budget negotiation process.

An **indicator** is defined as “a tool to present and manage complex information in a simple, clear manner that can form the basis for future action and can be readily communicated to internal or external stakeholders.”<sup>25</sup> Indicators alone will not provide assessments of changes in outcomes, therefore an analysis must be carried out, for example by monitoring and evaluating indicator scores.<sup>26</sup>

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25 Biodiversity Indicators for Monitoring Impacts and Conservation Actions, The Energy & Biodiversity Initiative, Center for Environmental Leadership in Business, Conservation International.

26 In the *GEF's Monitoring and Evaluation Policy* (2006), monitoring is defined as “a continuous or periodic function that uses systematic collection of data, qualitative and quantitative, for the

Based upon discussions with the MoF, PAS budgets need **results-based indicators (RBI)**. These are “SMART” indicators (specific, measurable, achievable, realistic, and time-bound) used to gauge or compare results related to meeting the strategic goals of PAS at the site or system level, as well as PAS financial performance in terms of cost-effectiveness, efficiency, and economic impact. Because a single indicator may not be able to capture

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purposes of keeping activities on track. It is first and foremost a management instrument.” Evaluation, on the other hand, “aims at determining the relevance, impact, effectiveness, efficiency and sustainability of the interventions and contribution of the involved partners.” In other words, indicators, especially at the higher levels, must be supported by evaluation. Monitoring can track progress toward a set of benchmarks and measure progress toward outcomes, while evaluation validates results and can make overall judgments about why and to what extent intended and unintended results are achieved (e.g., global environmental benefits, cost-effectiveness).

**Table 4. RBM's result-chain hierarchy (high-end)**

**Results:** Changes in a state or condition that derive from a cause-and-effect relationship. There are three types of such changes that can be set in motion by a development intervention: output, outcome, and impact.

**Goal:** The higher-order objective to which a development intervention is intended to contribute.

**Impact:** Positive and negative long-term effects on identifiable targets by a conservation intervention. These effects can be environmental, economic, socio-cultural, institutional, technological, or of other types.

**Outcome:** The intended or achieved short-term and medium-term effects of an intervention's outputs, usually requiring the collective effort of partners. Outcomes represent changes in conditions that occur between the completion of outputs and the achievement of impact.

**Outputs:** The products and services that result from the completion of activities within an intervention.

Source: Levels from OECD DAC Glossary of Key Terms in Evaluation and RBM.

**Table 5. Result-chain hierarchy (lower-end)**

**Functional area:\*** The functional area consists of the different categories of operational activities required to manage protected areas (including the cost of the central protected area agency).

**Programme:\*\*** A group of related projects or services directed toward the attainment of specific (usually similar or related) objectives. Programmes are the parts of the PA operations that require separate management.

**Activity:\*\*** Action taken or work performed by a PA in order to transform inputs (funds, materials) into outputs (management plans, PA information centres, capacity building).

Sources: \*US Center for Park Management (2001); \*\*NORAD (1999), The Logical Framework Approach, an analytical tool for objectives-oriented project planning and management.

all measurable conditions, various indicators could be developed to meet the SMART criteria. RBI may vary between PAS, depending on their priorities or performance criteria. RBI can be formulated for the short, medium, and long term. Annex 5 provides a template for formulating SMART indicators for PAS.

Results-based indicators are not standalone tools. They are typically linked to the different elements of what is known as a results-based management framework (RBM). This framework is a management strategy that focuses on performance and achievement of outputs, outcomes, and impacts. Tables 4 and 5 list the definitions of the high-end and low-end elements of the result-chain hierarchy.

An RBM that includes defined goals and results-based indicators to measure achievement towards goals is essential for supporting a sound monitoring protocol. In the case of PAS, the PA management plan will be the equivalent of the RBM.

Based on the opinions of MoFs in the targeted countries, three basic types of results-based indicators are recommended to improve PAS budgets:

- **Conservation results-based indicators** typically use metrics<sup>27</sup> linked to conservation results provided on the basis of programmes and activities that are included in the PA management plan or annual operating plan. Examples of such indicators might include a 20-percent annual reduction in the number of spectacled bear poaching incidents, a 25-percent reduction of the area covered with invasive plant species, a 50-percent reduction in illegal logging for firewood in a PA, or a 30-percent increase in annual visitation to see spectacled bears in PAs. Conservation results indicators could target those results that are easier to measure and are appropriate for applying metrics. Initially, the evaluation could avoid results that are harder to measure in the short and medium term, for example, an increase in fresh water flows from a PA where reforestation with endemic species has taken place.
- **Financial performance indicators (FPI)**, which include cost-effectiveness, efficiency, and transparency indicators, measure whether PAS are financially

<sup>27</sup> Metrics refer to a standard for measuring or evaluating something, especially one that uses figures or statistics; or a set of measurements that quantifies results or return on investment (ROI).

viable. Cost-effectiveness examines whether the PAS produces adequate results based on the money spent, for example, meeting the proposed conservation results using minimal and diversified financial resources. Efficiency, on the other hand, refers to how PAS meet their proposed results with a minimum waste of time, effort, and technical skill.

For example, PAS in the pilot countries have people living in and around their PAs. When the patrolling element of a monitoring programme is implemented by combining full-time employees (FTE), volunteers, and part-time local farmers, it may reduce costs and improve cost-effectiveness, because the cost-effectiveness ratio (CER) will be lower. The CER can be obtained by dividing the costs by the units of effectiveness (i.e., number of hectares patrolled); the CER = Total Cost of Units of Effectiveness. It is also possible to compare the CER with the CERs of other options for implementing patrolling. In the example above, the costs of additional coordination, extended training on patrolling and reporting, and supervision, may result in much more complex and costly implementation. Therefore, it may not be the most effective/efficient way to implement the patrolling element of the programme. When adding the additional costs, the CER may increase, and the total cost may be higher than hiring FTE to take care of patrolling. While the potential socio-economic cost (e.g., potential cost of a conflict with local farmers) needs to be considered in this example, cost-effectiveness and efficiency must be an integrated part of the decision-making process related to how to design and implement PA programmes.

The cost of implementing PAS conservation programmes using cost-effectiveness analysis must be assessed in the geographical context where they occur. Cost and cost-effectiveness can vary from PA to PA, region to region, and from country to country. Thus, there may be no baseline to compare cost-effectiveness due to the heterogeneity of costs. However, this situation increases the need to apply cost-effectiveness when preparing PAS budgets.

- **Economic impact indicators (EII)** are metrics used to assess the economic impact of conservation interventions in the PAS and their ecosystems. This implies that sustainable management of ecosystems in PAS could result in increased and sustainable output of economic sectors that depend on the ecosystem services of PAs. Examples of such indicators include percentage of new jobs in the tourism sector, level of increase in productivity in agricultural areas irrigated with water that originates in the PA, percentage increase in hydropower production in a hydropower plant (HPP) that uses water that originates in the PA, or percentage increase in sectoral tax revenues to the government. Because of the longer-term nature of achieving economic impact through improved ecosystems management, EII should be formulated for the medium and long term for specific sectors.

Creating the baseline for formulating EII will require, in most cases, additional economic impact studies that are not implemented on a yearly basis, or are part of the traditional budget cycle. Nevertheless, several countries in the region, including Peru and Guatemala, have completed economic valuation studies targeting specific economic sectors. Thus, the results of these studies could be used to develop EII and incorporate them in the budgeting process.

The use of a combination of the above results/impact indicators to link the PAS RBM (management plan) with the PAS budget is critical. This linkage can help assess the impact of the PAS budget on an annual or multi-annual basis, and determine whether public funding to the PAS has been used appropriately and effectively. Thus, results-based indicators must gauge the impact that expenditures may have had in relation to the proposed outcomes (results).

Annex 6 provides additional definitions related to results-based indicators.





## 3.1 Findings

The Project conducted rapid assessments of the existing indicators in selected PA management plans and budgets in the targeted countries and concluded that neither PA management plans nor PA budgets were supported by results-based indicators, i.e., conservation results, cost-effectiveness, and economic impact indicators. Building on the indicators-related findings mentioned in Sections I and II, additional specific findings and comments regarding indicators for conservation, cost-effectiveness, and economic impact are included in the next sections.

### 3.1.1 Results-based conservation indicators (RBCI)

Typically, PAS management plans and annual operating plans include basic/general conservation indicators, which are commonly linked to the lower end of the hierarchy in the planning framework. However, indicators tend to lack defined metrics.<sup>28</sup> When available, metrics are incomplete (partly defined), not interrelated with programmes and activities, and outdated, making it impossible to assess metrics of activity completion in relation to metric objectives or results. Box 8 illustrates some of these characteristics with a sample of a programme indicator sheet from the Alerce Costero National Park (PNAC) in Chile.

However, existing guidelines and indicators used by governments generally do not support the integration of results-based indicators.

### 3.1.2 Financial performance indicators (FPI)

Financial performance indicators are relatively new to PAS, and it is only in recent years that governments have started to push for such indicators. They have become particularly visible since the financial crisis of 2008, which resulted in a scarcity of funding to non-priority sectors.

In Chile, the Project reviewed financial performance indicators in two protected areas, one public and one private: the state-owned PNAC and the private *Reserva Costera Valdiviana* (RCV), which is managed by an NGO.

<sup>28</sup> Metrics are parameters used for measurement and comparison or to track performance or production. Analysts use metrics to compare the performance of different companies or products, despite the many variations between companies. In the case of PAs, PA managers may use metrics to track performance of conservation results by programme vis-à-vis investment.

Box 9 shows the available indicators related to financial performance in the PNAC. From the list of nine activities shown in Box 9 only one (#7) is related to effectiveness/efficiency, i.e., diversification of income. The RCV, on the other hand, had no financial management indicators in its 2013 management plan and annual operating plans. In the sampled PAs in Chile, there were no indicators to support key aspects, such as budget execution, cost reductions, and transparency. The Project also found that self-monitoring and external annual performance evaluations are implemented without indicators.

### 3.1.3 Economic impact indicators (EII)

PA economic impact indicators are the most unexplored indicators, and therefore absent from most PA management plans and/or budgets (at the site and system levels). This is the case in the three pilot countries, a result of several linked factors, including:

- There is limited availability of data to link PAS ecosystem services with sectoral economic output. Several related studies have been available for almost a decade in countries such as Peru, Chile, Costa Rica, Brazil, Mexico, and Venezuela, and have been used to support funding to PAS. However, such information has not yet been used to define results-based indicators to support PAS budgets.
- PA managers and environmental agencies have limited awareness of the opportunities to use targeted sector-based economic information to support PAS budget negotiations, at both the executive and legislative levels.

With Project support, PA managers in the targeted countries initiated direct collaboration with their respective MoFs to formulate and institute results-based indicators to support PAS budgets and the budget planning cycle.

## 3.2 Recommendations

Introducing results-based indicators in the existing PAS management framework will be a complex task requiring, in many cases, the overhauling of the entire PAS management framework at the national level. Strengthening connections between results and funding will require multiple actions over several years, and strong commitments from PAS managers and financial decision-makers from public, private, domestic, and international agencies. Thus, in order to institute results-based indicators in PAS budgeting, the following actions are recommended:

### Box 8. Sample of programme indicators, PNAC, Chile

Natural and Cultural Resources Conservation Programme	
Objective: To prevent and mitigate the deterioration of the natural and cultural resources of the PNAC	
Indicator: Change in vegetation, wildlife wealth, and conditions of cultural sites	
Activity	Indicator
<b>1.1 Implementation of the Forest Fire Protection Program in the PNAC (2009) following the guidelines of the DEPRIF Department.</b>	Number of activities executed /Number of activities planned (% per year)
<b>1.2 Updating of the Forest Fire Protection Programme in the PNAC:</b>	Registration and activities undertaken in accordance with updated program schedule
Refine and assess areas of risk potential and priorities for forest fire damage, based on knowledge and experience of the Park Rangers and the contribution of professionals of the DEPRIF and DAPMA .	
Collection and organization of tools, staff, actions, existing and new tasks, and resources available to the Unit.	
Measures of fire prevention activities with surrounding communities and the visiting public, who also may be adversely affected by forest fires.	
<b>1.3 Conducting workshops or meetings before the start of the high season between the departments of Protected Areas and Forest Fire Management of CONAF and the Valdivia Coastal Reserve.</b>	Number of coordination meetings among departments
Compare and enhance fire prevention programs in both protected areas.	
Supplement actions and fire fighting resources.	
Apply the same approach to disseminate forest fire prevention information.	
<b>1.4 Establish post–fire feedback and analysis meetings to obtain critical information to improve forest fire management</b>	Number of meetings between departments
<b>1.5 Training</b>	Number of people trained by topic, annually and %
Develop and train rangers on an action protocol to address wildfires, including coordination with fire brigades.	
Incorporate fire prevention and management in the training of temporary park rangers.	
Joint participation of park rangers and fire brigades in high-season training sessions on fire fighting.	
Training of staff of concessions in PNAC in fire prevention topics.	
<b>1.6 Dissemination</b>	Number of dissemination initiatives completed / Number of total initiatives proposed (%)
Publishing recommendations concerning the proper use of fire on the CONAF webpage.	
Implement an outreach program on Forest Fire Protection in the PNAC.	
Dissemination of a "Minimal Impact Protocol" during fire fighting.	
Source: Report: Developing Indicators for PA Management in Chile, UNDP-Chile, March 2014.	

- a) Assess the existing indicators being used by the MoF for other sectors, build upon existing budget execution and shift towards appropriate monitoring protocols and systematization.
- b) Work with the MoF and central planning agencies to prepare a standard results-based indicators package for PAS budgets, containing the minimum SMART indicators required to enable adequate monitoring and evaluation, and assessment of return on investment (using monetary and non-monetary indicators).
- c) Develop a collaborative agenda with the MoF and other central planning agencies to programme the insertion of results-based indicators, data collection, data analysis, and reporting systems. It is important that the optimization of the PAS budget address key aspects that are important to the MoF. This will ensure that the MoF provides leadership to support

**Box 9. Sample of programme indicators, PNAC, Chile**

PNAC's Administrative, Financial and Infrastructure Support Programme: activities and indicators for monitoring and evaluation	
Activities	Indicator
<b>1. Development of a recruitment programme</b>	Number of persons hired during the year with technical and professional skills / Total number of persons employed in the year; calculated by thematic work area
<b>2. Development of a training programme</b>	Number of staff trained per year (permanent and temporary) / Number of planned trainings (%)
<b>3. Coordination with neighbouring private PA</b>	Number of subject areas coordinated (Subject area / Specific coordination) (%)
<b>4. Inputs and basic services</b>	Number of facilities with new and improved services (type of service) / Total number of facilities being used at PNAC (%)
	Number of new facilities (by type of service) / Total number of new facilities being used at PNAC (%)
<b>5. Services and infrastructure needs</b>	Number of new nurseries, and/or number of infrastructure improvement projects per year
	Number of facilities with new and improved services (by type of service) / Total number of park facilities in use (%)
	Km of fence (or limit marks) repaired or new in conflict areas / Number of km of fence (or limits marks) along PNAC borders
	Number of works for wastewater management (sewage treatment plants)
	Number of meeting rooms for environmental information or equipped for that purpose every three years
<b>6. Equipment</b>	Number, capacity, and management of existing means of transport inside the park in relation to the number of staff in high season
<b>7. Additional funds management</b>	Number of agreements reached annually
	Number of additional resources obtained annually
	Number of additional resources obtained annually under this scheme
<b>8. Design and implementation of an accident risk management programme</b>	Document edited
	Number of staff trained per year (full-time and temporary) / Number of planned trainings (%)
	Number of media used by the park, containing messages or guidance on managing encounters with wildlife
	Number of injured persons with knowledge of the risks / Total number of accidents per year (%)
<b>9. Land management</b>	Number of ha of land being managed in the NPAC

Source: Report: Developing Indicators for PA Management in Chile, UNDP-Chile, March 2014.

the process of improving the PAS budget. The MoF could verify PAS budget compliance with agreed indicators at the time the PAS budget is delivered to the MoF, right after the formulation phase.

- d) Carrying out cost-effectiveness analysis and economic analysis to support the formulation and measurement of results-based indicators is an indispensable step towards improving PAS budgeting. It is recognized, however, that the closer the PAS get to evaluating "results," the more challenges PAS will face. In many cases, PAS, central budgeting agencies, and the MoF will have to rely on ad hoc studies and analyses

to make leaps of faith and identify and fill knowledge gaps; these institutions could jointly do the latter.

Finally, international development agencies interested in PAS financing that traditionally focus on supporting the establishment of financial mechanisms (such as endowment funds, PES, and other market and non-market revenue mechanisms) could shift part of their efforts to supporting PAS agencies in improving the formulation and execution of their annual public budgets. This is important, because the large majority of PAS funding comes from central governments and is therefore the most important element of PAS long-term financial sustainability.

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# Annexes

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## Annex 1. Key functions for the PAS budget working group

The PAS budget working group should be composed of the highest possible level of representatives from the following key stakeholders:

- Ministry of Finance: Vice-minister of public budget, budget directorate, or equivalent; and key sectoral budget analysts
- National Secretary of Planning (financial planning/budgeting unit)
- Ministry of Environment (MoE): Budgeting and planning division
- PAS Agency (usually under the MoE): Planning and budgeting unit

- PAS: Managers/financial managers
- PAS budget specialists (e.g. independent consultants or technical advisors)

The above team will be responsible for facilitating the following key activities and processes and ensuring compliance during the different phases of the budgeting cycle:

1. Disseminate information on the need to improve budget preparation and the role of key stakeholders.
2. Review the scope of work for each of the phases of the PAS budget preparation process, and the related activities and programmes.
3. With technical support of public budget specialists, define the need for information and short-term analysis.

4. Hold periodic meetings to review progress and challenges and propose solutions.
5. Periodically assess the political environment to determine the need for political action or technical input, to address bottlenecks.
6. Determine the need to add additional members to the working group as necessary at each phase of the budget formulation process, for example, legislators who could support the budget approval process.
7. With support of public budget specialists, discuss capacity building needs and strategies to fill knowledge gaps.
8. Negotiate, define and allocate resources to develop budget-related products that are useful to the Ministries of Finance, central planning agencies, and the protected areas agencies.
9. Ensure that the agreed-upon products, for each phase of the budgeting process, are delivered in a timely fashion.
10. Oversee the preparation and implementation of a communications strategy and ensure that the strategy reaches different audiences, including government officials responsible for decision-making at the executive and legislative levels and civil society.
11. Ensure that specific communication efforts (messages) to improve decision-making are delivered at each of phase of the budgeting process, and assess impact to adjust messages as needed.
12. Encourage stakeholders to evaluate PAS budget execution using ad hoc impact indicators and incorporate findings into the next budget cycle.
13. During administration transition periods, ensure the establishment of adequate connections with permanent technical staff within key stakeholder agencies, to ensure the continuity of the PAS budget optimization process (the improvement of the PAS budget may require several years of work).
14. Coordinate with stakeholders and key international cooperation agencies to ensure that sufficient funding is available to support all activities involving the PAS budget optimization process.
15. Coordinate and periodically capture information to produce progress reports to stakeholders, and provide input to the communications strategy.
16. Promote the establishment of a permanent PAS budgeting-working group, led by the Ministry of Finance in collaboration with other key stakeholders.

## Annex 2. Strategies to introduce priority-based budgeting

Priority-based budgeting (PBB), also known as budgeting by results, is used to help PAS identify the most important strategic priorities among conservation programmes and rank programmes according to how well they align with those priorities. Resources are then allocated in accordance with the rankings.

After priority conservation results, programmes and activities, and related costs have been identified, implementing PBB requires the following key steps:

1. evaluation of programme-based priorities and scoring;
2. strategic resource allocation; and
3. support of a financial management information system.

### 1. Evaluation of programme-based priorities and scoring

Evaluating programme priorities against the proposed PA's conservation results is critical to the success of the PBB. First, a decision unit (team) must be established. The decision team should be cross-cutting, to include the programmes that will produce the expected results. PAS departments, such as the accounting department or visitors management department, are not appropriate decision units for PBB, because they are typically organized around functions rather than results.

#### **Strategic result:**

***Defined priorities that are identified as relevant to PA conservation goals through the process of defining results; a logical and agreed-upon set of priorities resulting from a transparent process.***

**Table A1. Sample of criteria and scoring to prioritize PA programmes**

Proposed priority programmes		Criteria														Ranking			
		1. Likelihood of availability of funding for multiple years	2. Staff and staff capacity to undertake proposed activities	3. Potential impact of 50% or more at achieving proposed results	4. Supports protection of ecosystem services linked to productivity and community development	5. Links to an existing ongoing related project	6. Leadership (commitment to support and lead implementation)	7. Commitment of local government agencies and private sector	8. Availability of supportive legal and regulatory framework	9. Existing and potential public-private partnerships	10. Relative cost of the program (not too expensive)	11. Availability of co-financing	12. Potential to contribute to social and economic development	13. Likelihood of achievement of initial objectives within the year	14. Proposed programme is not a new activity	15. Programme was prioritized using a scientific approach	Total score (Ranking: 1= highest rank, 8= lowest rank)	Average	RATING
1	Invasive species control	4	4	4	1	8	3	8	8	8		8	4	3	1	1	65	3.25	9
2	Visitor safety	1	2	2	1	1	2	4	4	1		1	1	2	1	1	24	1.20	7
3	Plant genetics research	8	8	4	8	8	8	4	8	3		2	8	8	8	1	86	4.30	10
4	Poaching control	1	1	1	1	8	1	4	1	2		4	8	1	1	1	35	1.75	8
5																	0	0.00	1
6																	0	0.00	1
7																	0	0.00	1
8																	0	0.00	1
9																	0	0.00	1
10																	0	0.00	1

Once the PA has identified its priority results and defined what those results mean in terms of achieving its goals, criteria and a scoring system can be applied to objectively evaluate how the programmes achieve or influence the proposed results. The scores should be based on criteria that identify the measurable influence that the programmes have on the results.

After the scoring is completed and the information compiled, the next step is to compare scores between programmes. The score ratings will indicate top-to-bottom results, and the decision team should ensure that the results are logical and intuitive. A sample of criteria and scoring to prioritize PA programmes is shown in Table A1.

A programme that can influence multiple results must be given a higher priority, as programmes that have the potential to achieve multiple results make the best use of scarce central funding (taxpayers' money).

## 2. Strategic resource allocation

Once the results of the scoring are officially accepted, resources can be allocated to the priority conservation programmes. There are several different methods for allocating resources,<sup>29</sup> including:

- Ordering the programmes according to rating: Funds can be allocated to each priority programme based on score/rating or by using the priority's relative weights, if weights were assigned. Priority programmes can also be organized as high- and low-priority, depending on rating.
- Organize programmes by tiers of priority and then allocate reductions by tier: For example, funding to programmes in the first tier might not be reduced,

<sup>29</sup> Based on Kavanagh et al. (2010).

while the programmes in lower tiers might receive the largest cuts.

- Allocate earmarked funds separately (funds with restrictions placed on how money can be used): For example, private donor funds could be evaluated and allocated to lower priorities if the donor permits discretionary use. If a low-ranking programme is funded with unrestricted private donor funding, is it still worth maintaining it, especially if that grant may expire in the near future?

### **Strategic result:**

***Ensure that priority programmes that received allocations are held accountable for producing the results that were defined.***

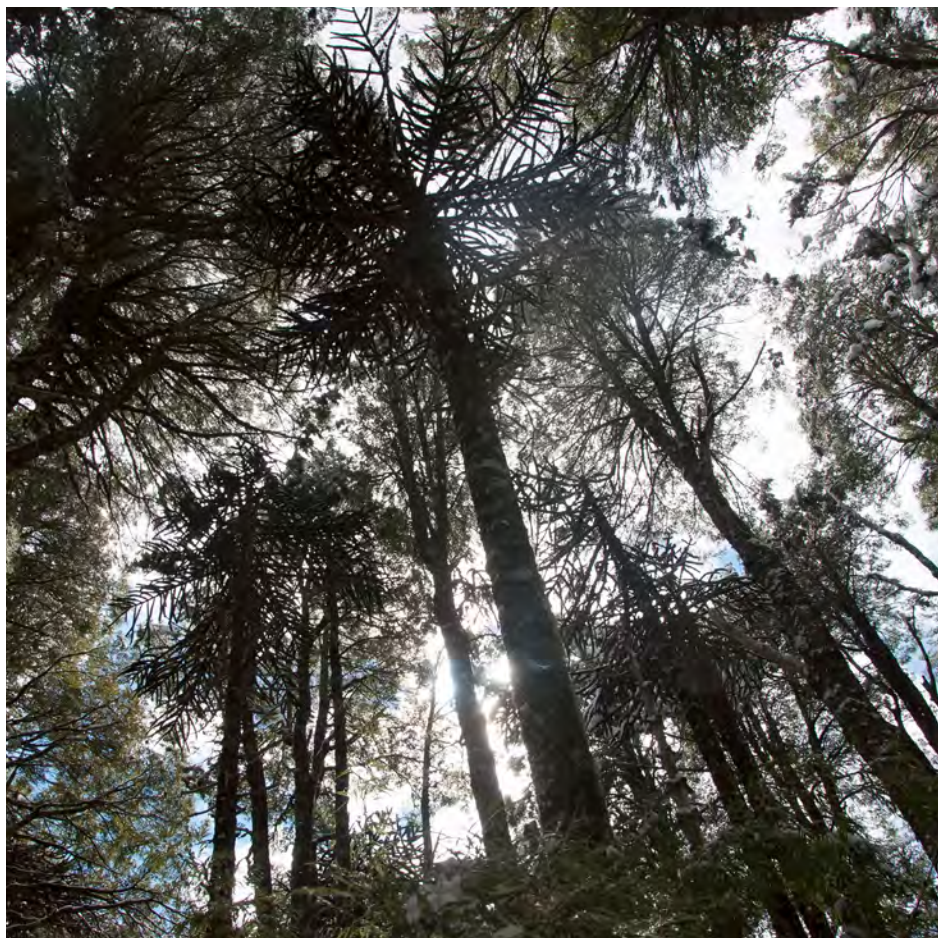
### **3. Support of a financial management information system**

Although a financial management information system may be considered a separate tool, for the purpose of this guide, it is considered an element of PBB.

A financial management information system is not necessarily a replacement for an existing financial information system; it can run in parallel and is to be used as an internal decision-making tool. The integrated financial management information system (IFMIS)<sup>30</sup> is an information system that tracks financial events and summarizes financial information. In its basic form, an IFMIS is little more than an accounting system configured to operate according to the needs and specifications of the environment in which it is installed.

An IFMIS uses information and communications technology in financial operations to support informed decision-making on management and budgeting, fiduciary responsibilities, and the preparation of financial reports and statements. In terms of protected areas, IFMIS refers more specifically to the computerization of PAS financial management processes, from budget preparation and execution to accounting and reporting. It is a single, reliable platform database (or a series of interconnected databases) to and from which all data expressed in financial terms flow. A PAS IFMIS could have the following basic functions:

- standard data classification for recording PAS financial information;
- internal controls over data entry, transaction processing, priority allocations, trends on income and expenditure, and reporting; and
- common processes across PAS for similar transactions and a system design that eliminates unnecessary duplication of data entry.



30 Adapted from: Integrated Financial Management Information System: A practical guide. Publication produced for review by USAID. Prepared by The Louis Berger Group, Inc. and Development Alternatives, Inc. under the Fiscal Reform and Economic Governance Task. USAID, 2008. Available at: [http://pdf.usaid.gov/pdf\\_docs/PNADK595.pdf](http://pdf.usaid.gov/pdf_docs/PNADK595.pdf)

### Annex 3. Template to define cost-reduction strategies<sup>31</sup>

Cost-saving option	Priority (low, medium, high)	Key actions and time frame (month/year)	Estimated annual saving (USD)
Balance staff time: full-time, part-time, consultants, and volunteers.			
Make strategic adjustments in programmes and activities.			
Optimize/introduce PA entry fees. Promote the use of alternative fee-collection mechanisms to reduce or eliminate full-time staff assigned to this task.			
Extend the useful life of goods and equipment (emphasis on preventive maintenance).			
Contract out services that are not deemed necessary to keep in-house.			
Increase efficiency of the financial-administrative system.			
Analyse savings in main expenditure items.			
Seek out corporate in-kind contributions by making PAs demonstration sites for vendors of energy-efficient equipment.			
Reduce use of firewood for heating systems.			
Reduce heating costs through building insulation.			
Optimize the vehicle fleet through vehicle sharing, to reduce vehicle needs and maintenance costs.			
Re-assess visitation patterns and develop self-guided tours to reduce staffing needs in low-visitation seasons.			
Make volume purchases (where appropriate).			
Use more cost-effective equipment, such as solar power, HVAC (heating, ventilation, and air conditioning) systems, higher-efficiency lighting, auto-off lighting, and hybrid and electric vehicles.			

31 Cost-reduction strategies commonly used by the US National Park Service, and selected Financial Plans for National Systems of PAS in Central and Eastern Europe (Romania, Serbia, Russia, Kosovo, Georgia), with support of UNDP-supported GEF-financed projects.



## Annex 4. The 5-step approach to developing effective communications strategies

### Step 1. Define the communication campaign goal effectively:

- Identify the larger goal.
- Determine which part of the larger goal could be met by a communications campaign.
- Describe the specific objectives of the campaign, and integrate these into a plan.

### Step 2. Define the intended audience effectively:

- Identify the group to whom you want to communicate your message.
- Consider identifying subgroups to whom you could tailor your message.
- Learn as much as possible about the intended audience; add information about beliefs, current actions, and social and physical environment to demographic information.

### Step 3. Create messages effectively:

- Brainstorm messages that fit with the communications campaign goal and the intended audience(s).
- Identify channels and sources that are considered credible and influential by the intended audience(s).
- Consider the best times to reach the audience(s) and prepare messages accordingly.
- Select a few messages and plan to pre-test them.

### Step 4. Pre-test and revise messages and materials effectively:

- Select pre-testing methods that fit the campaign's budget and timeline.
- Pre-test messages and materials with people who share the attributes of the intended audience(s).
- Take the time to revise messages and materials based upon pre-testing findings.

### Step 5. Implement the campaign effectively:

- Follow the plans you developed at the beginning of the campaign.
- Communicate with partners and the media as necessary to ensure the campaign runs smoothly.
- Begin evaluating the campaign plan and processes as soon as the campaign is implemented.



## Annex 5. Template for formulating SMART performance indicators for PAS<sup>32</sup>

The details of the indicators determine how and to what extent the results have been achieved at different times. Measurements can be:

- **Quantitative:** e.g., number of target protected areas within a national system of protected areas (quantitative indicators should be measurable as far as possible).
- **Qualitative:** e.g., effective financial mechanisms established.
- **Behavioural:** e.g., managers of PAS prioritize the development of business plans and the establishment of financial instruments.

Direct indicators may need to be supplemented by additional indirect (proxy) indicators. The following table provides examples of direct and indirect (proxy) indicators:

<sup>32</sup> Adapted by Marlon Flores from NORAD (1999). Sections of this document have been adapted to fit the specific needs of PAS results-based budgeting.

PURPOSE	DIRECT INDICATOR	INDIRECT INDICATOR
Decrease recurrent costs	Results-based budget allocation system	<ul style="list-style-type: none"> <li>• Resources are allocated by priority results</li> <li>• PAS staff are trained to implement results-based budgeting</li> <li>• Optimized budget and results-based indicators available for 2015</li> </ul>

Several indicators are better than one. Single indicators seldom convey a comprehensive picture of change.

### Defining how to verify outcomes

Indicators specify the performance standard to be reached in order to achieve an outcome or an objective. Therefore, indicators should specify:

- target group (for whom);
- quantity (how much);
- quality (how well);
- time (by when); and
- location (where).

### Formulating the indicator

A good indicator is:

- **Substantial:** It should reflect the essential aspect of an objective in precise terms.
- **Independent,** at the different levels: The same indicator cannot normally be used for more than one objective/output/outcome.
- **Factual:** The indicator should reflect fact rather than be subjective. It should have the same meaning for Project supporters and for informed sceptics.
- **Plausible:** Changes recorded should be directly attributed to the proposed activities.
- Based on **obtainable** data: Indicators should draw upon data that is readily available or that can be collected with reasonable extra effort as part of the proposed activities.

The measurements provided by indicators should ideally be accurate enough to make the indicator objectively verifiable. An indicator is objectively verifiable when different people, using the same measuring process independently of one another, obtain the same measurements.

In the early planning stages, indicators are just guiding values with which to analyse the project concept. These guiding values must be reviewed again when the project becomes operational and, where necessary, replaced by project-specific indicators.

### Step-by-step formulation (Sample of a financial performance indicator)

**Select expected outcome:** e. g., “Balanced recurrent and investment costs in the PAS budget.”

1. **Identify indicator:** Recurrent costs.
2. **Specify the target group:** National parks with recurrent costs over 70 percent of total annual budget.
3. **Quantity:** Reduce allocation to recurrent cost by 50 percent (35 percent target).
4. **Set quality:** Define inputs to activities, programmes, and results, and reallocate costs accordingly.
5. **Specify time frame:** Between January and July 2015, as indicated in the 2015 budget proposal.
6. **Define location:** Five pilot national parks
7. **Integrate the above elements:**

Five pilot national parks with recurrent costs over 70 percent of the total annual budget will institute results-based resource allocations to decrease recurrent cost allocation by 50 percent between January and December 2015, as proposed in the Parks’ 2015 budget proposals.

## Annex 6. Results-based management definitions

**Activity:** An action taken or work performed within a project in order to transform inputs (funds, materials) into outputs (organizations, buildings).

**Assumption:** An event, condition or decision that is necessary for project success, but which is largely or completely beyond the control of project management.

**Effectiveness:** A measure of the extent to which a project or programme is successful in achieving its objectives.

**Efficiency:** A measure of the “productivity” of the implementation process – how economic inputs are converted into outputs.

**Evaluation:** A systematic and independent examination of a project in order to determine its efficiency, effectiveness, impact, sustainability, and the relevance of its objectives.

**Goal:** The main overall objective that the project is meant to contribute to in the long run, and which explains the reason why it is implemented.

**Impact:** The positive and negative changes produced, direct or indirect, as the result of a programme or project.

**Indicator:** An indicator defines the performance standard to be reached in order to achieve an objective.

**Input:** The funds, personnel, materials, etc., of a project that are necessary to produce the intended output.

**Monitoring:** The continuous or periodic surveillance of the physical implementation of a project to ensure that inputs, activities, outputs, and external factors are proceeding according to plan.

**Output:** The results that can be guaranteed by the project as a consequence of its activities.

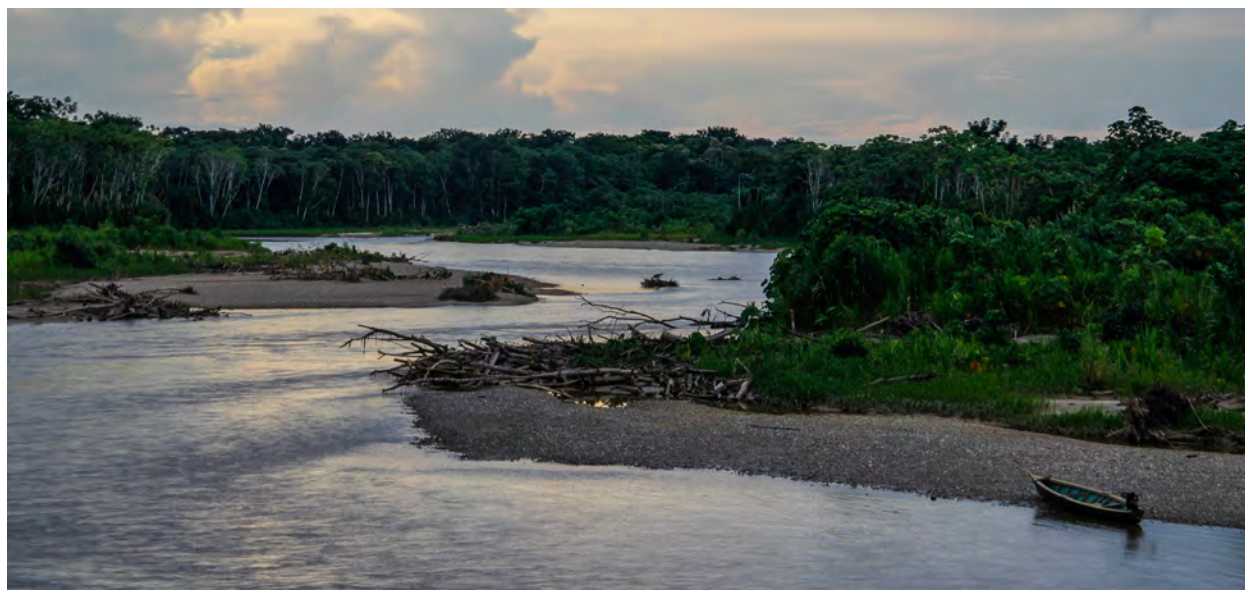
**Programme:** A group of related projects or services directed toward the attainment of specific (usually similar or related) objectives.

**Project:** A planned undertaking designed to achieve certain specific objectives within a given budget and within a specified period of time.

**Purpose:** The immediate reason for a project; the effect which the project is expected to achieve if completed successfully and on time.

**Relevance:** The degree to which the rationale and objectives of a project are, or remain, pertinent, significant and worthwhile, in relation to the identified priority, needs and concerns.

**Sustainability:** The extent to which partner country institutions will continue to pursue the objective after project assistance is over.



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