

POVERTY REDUCTION SCALING UP LOCAL INNOVATIONS FOR TRANSFORMATIONAL CHANGE



United Nations Development Programme

In Partnership with Special Unit for South-South Cooperation



Costa Rica: Contribution of National Parks and Biological Reserves to the Economic and Social Development

SNAPSHOT OF PSC

The Programme for South-South Cooperation (PSC) mobilizes civil society, academia, government agencies and the private sector in the three countries of Benin, Bhutan and Costa Rica. They share their knowledge and practical experiences, independently and based on a common agenda and mutual interests.

This has led to 36 successful projects, with tangible results. Each of these projects contributes to ecological sustainability and benefits the social and economic position of people in the three countries. PSC has shown that South-South collaboration can produce impressive results on a very small budget:

- 26,700 direct beneficiaries
- 1,280 people participating in productive activities
- 477 communities benefited
- 1,533 indigenous people trained
- 3,124 farmers converted to organic production
- 673 new products and 179 new services developed
- 1,160 women involved in decision making
- More than US\$250,000 of sales in 2010

SCALING UP SUCCESS

Given the commendable results that PSC has achieved over the years, efforts are currently underway to find a new source of funding. PSC is a successful model of cooperation that can be easily replicated and improved with the participation of more partner countries from the South. For this reason, we aim to mobilize US\$5 million–US\$9 million to increase the obtained results in Benin, Bhutan, Costa Rica plus any other country that wishes to join us, to achieve the below goals:

- Increase the direct beneficiaries from 26,700 to 42,000
- Increase the people participating in productive activities from 1,280 to 2,100
- Increase support from 477 communities to 750
- Increase women involved in decision making to 1,800
- Create 190 new enterprises
- Support creation of more than 900 jobs

These goals were set around four thematic areas which include: 1) sustainable tourism, 2) sustainable production and consumption chains, 3) conservation and sustainable use of biodiversity, 4) access to sustainable energy and energy use. Gender equity and women's empowerment are cross-cutting themes emphasized in all PSC projects.

FOREWORD

Scaling up local development innovations is key to achieving sustainable and equitable development, especially when these innovations are driven by national and local governments and actors. In order to best support countries to scale up proven local successes and achieve transformational changes, the UNDP Poverty Practice of the Bureau for Development Policy (BDP) works to build a solid knowledge base and to uncover systematically the enabling environment and drivers for scaling up. In this context, together with the Special Unit for South-South Cooperation we have jointly initiated a series of case studies of “scaled up” development cases. Learning from these country cases, we aim to identify key policy, institutional and political enablers and drivers for a successful scaling up process, and to inspire development partners to transform innovations into sustainable development results.

These cases demonstrate how countries, ranging from middle income countries (such as China, Costa Rica and Mexico) to low income and least developed countries (such as Mongolia and Nepal), were able to drive these processes. Their success, built on leadership and vision, was mainly relying on their own resources and human capacities. Each country story showcases a different development challenge and response—the Mexico story describes the national cash transfer scheme to address inequalities and vulnerabilities, and the China case showcases an agricultural extension programme that spurred rural entrepreneurship. The Costa Rica study addresses an employment creation effort through biodiversity preservation and eco-tourism, and the Nepal story describes the national initiative to supply small scale energy to support rural employment and basic services delivery during and in the aftermath of conflict. Finally, the Mongolia case outlines the successful transformation of Mongolia’s XacBank from a non-bank financial institution to a commercial bank, and its ascendance as a leader in providing innovative and socially responsible services to Mongolian citizens.

Each story identifies key principles, approaches, elements and methodologies that could ultimately contribute to answering the question, how is it possible to scale up a pilot/seed initiative to achieve larger and sustainable development impact? It describes the process of scaling up, capturing the key milestones in the evolution of the scaling up, and distilling the main drivers for success such as the political vision and commitment, internal and external ‘catalysts,’ and political, financial and policy enablers, as well as institutional arrangements and human capacities. The findings of the case studies will be further utilized in the UNDP guidance note on scaling up local development innovations for poverty reduction, as well as the ongoing UNDP efforts of strengthening an integrated approach for local development.

Every country case presented in the series also demonstrates how each innovation has spurred, or bears the potential to spur, a sound South-South collaboration and learning platform, and in some cases, South-North knowledge exchange. A South-South capacity and knowledge exchange initiative will follow the wide dissemination of the case studies during the upcoming South-South Expo.

The partnership expresses its sincere gratitude to the UNDP Special Unit for South-South Cooperation (SU-SSC) and Mr. Yiping Zhou, Director of SU-SSC, for their strong support to this initiative. Without their vision and commitment, this work would not have materialized. We also gratefully acknowledge country offices that have facilitated this work, peer reviewers who helped improve the quality of the case studies, and authors of each country case. Their contributions are acknowledged in each case study. Lastly, in addition to facilitating this initiative, UNDP Poverty Group colleagues have also compiled and edited all the case studies.



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Summary

The name Costa Rica today generates images of pristine beaches, lush forests, roaming wildlife and green energy. However, this was not always the case. About 40 years ago, Costa Rica had the worst deforestation rate in the world. So how did Costa Rica transform itself from having one of the worst track records of conservation to becoming renowned for sustainability? And how can other countries learn from this experience?

This case study examines the scaling up of a project Systematization and Analysis of the contribution of National Parks and Biological Reserves to the Economic and Social Development under the Programme of South-South Cooperation on Sustainable Development (PSC) between Benin, Bhutan and Costa Rica.

The PSC is a strategic partnership for South-South cooperation on sustainable development funded by the Netherlands and executed by Costa Rica, Benin and Bhutan. The case study provides an analysis of the project at the country level, and then zooms out to place it in national and international contexts, analyzing how Costa Rica's success has been replicated by counterparts in Benin and Bhutan. The analysis shows that successful environmental conservation can only happen within an organized system of national leadership, local ownership, conducive policy environment, capable institutions and international cooperation that is fueled by economic motivations, adequate and predictable funding and external catalysts. More importantly, this case study also reveals the effectiveness of South-South cooperation among countries that stand to learn from each other.

The PSC reveals a virtuous cycle between national and grassroots efforts, where the success in each country can be attributed to the government efforts with support from the civil society.

The Programme of South-South Cooperation on Sustainable Development (PSC): Justification of the Scaling Up Success

The initial objective of the PSC Project was to address challenges in sustainable development by contributing to a body of knowledge about the socio-economic contributions of National Parks and Biological Reserves (NPBRs). In achieving this objective, the project was constantly guided by the UN Millennium Development Goals (MDGs). More specifically, the project directly addressed three of the eight MDGs, namely, ensuring



environmental sustainability, eradicating poverty and developing a global partnership for development.

Evidence of the socio-economic benefits of NPBRs demonstrated by the project has been largely responsible for creating a transformative change in attitude towards protected areas. Traditionally, governments tended to perceive NPBRs as costs and burdens that needed to be maintained due to international pressure. The project demonstrates that NPBRs are valuable assets that lead to socio-economic development. These results provide concrete reasons for preserving and maintaining NPBRs and natural resources within other conservation areas. The positive contribution of the project towards environmental sustainability is undeniable.

Equally important is the project's contribution towards a better understanding of how NPBRs help eradicate poverty. The project presents hard data on the direct role of NPBRs in creating employment opportunities, providing sustainable sources of income to local communities and empowering societies that might have otherwise been left out. This data has been presented to the national institutions in Costa Rica, Benin and Bhutan for further investment in NPBRs as an instrument of contributing to the improvement of the living standards of communities whose livelihoods depend on these protected areas.

One of the most attractive features of the project has been its transferability and sustainability. Having established the basic methodology earlier in Costa Rica, and following several training sessions, the project has now been successfully replicated in different local contexts, adapted to a national scale and internationally transferred to Bhutan and Benin. The ease and success of these adaptations can be attributed to the simple but ingenious methodology that allows for efficient standardized training while remaining flexible and responsive to varied contexts.

The accomplishment of the project promoting the South-South collaboration between the three nations that are as geographically and culturally different as Costa Rica, Benin and Bhutan provides strong support for the benefits of global partnership as advanced by the UN MDGs. It is reflected in the verifiably positive impact that it has had on the stakeholders at both the local and national levels.

The local communities living in and around NPBRs have come to realize the economic contribution of NPBRs to their livelihood and this has inspired them to value these areas more. At the same time, national authorities have come to perceive NPBRs as valuable socio-economic assets. The policy implications of this change in attitude is enormous because knowing the socio-economic value of NPBRs can inspire a reversal in the current outflow of funds for environmental conservation caused by a lack of appreciation of the real value of conservation areas.

The Origins

The original concept of the project was developed in 2003 with the collaboration of the International Center in Political Economy for Sustainable Development (CINPE) of the National University of Costa Rica and the National Institute for Biodiversity (INBio). INBio was looking to fund a biodiversity project, and utilizing this opportunity CINPE developed a project that would measure the economic value of the conservation areas in Costa Rica. By then Costa Rica was already known worldwide for its efforts in environmental conservation. While the importance of conserving natural resources was generally taken for granted, investigators at CINPE noticed a dearth of empirical economic evidence that would justify the resources and efforts invested into environmental conservation in Costa Rica. Studies conducted until then on conservation focused on opportunity costs and suggested that maintaining these areas came at a cost of resources that could be invested in health or education (Pagiola, Von Ritter, & Bishop, 2004). In this context, CINPE decided to implement a project that

would examine the socio-economic benefits that conservation areas offered to different stakeholders. Since the results of the study could affect not just the local communities around NPBRs but also national policy decisions, CINPE was aiming for a study that would generate results and policy recommendations on a local, regional and national scale.

The first challenge that confronted the investigators was the issue of a methodology. Given the diversity of economic activities around conservation areas and the geographic and cultural idiosyncrasies of each area, identifying and quantifying socio-economic contribution required a methodology that was comprehensive but flexible. To that end, CINPE developed a methodology that combined cluster analysis¹ with value-added chain analysis into an innovative matrix, which was then applied at both the national and local level. At the national level CINPE was obligated to use secondary data gathered from national organizations including Costa Rican Institute of Electricity (ICE) and Costa Rican Institute of Tourism (ICT). This data used national aggregates and averages, so in order to gather more in-depth data as well as to fine tune the methodology, CINPE decided to also run case studies in three national parks – Volcán Poás National Park, Cahuita National Park and Chirripó National Park. These parks were chosen as a result of a series of workshops between CINPE and biodiversity experts, researchers, civil community leaders and other community members.

The results of the study indicate that, at the national level NPBRs contributed 5.5 percent toward the Gross Domestic Product (GDP). Similarly three NPBRs under study had created at least 774 jobs. They have also increased the income level of plantation owners in the vicinity of parks by approximately US\$600,000 in 2002 (Furst, Moreno, Garcia, & Zamora, 2003). These results immediately captured national attention, and were featured in several newspapers, radio programmes and national television. CINPE was invited to present their results at conferences all over the country including presentations given to the Minister of Environment and the director of National Parks of the National System of Conservation Areas (SINAC).

Scaling Up Process

The success of the original project generated high demand for the data collected in the study. CINPE was approached by SINAC, the highest national body responsible for environmental conservation and policy making in Costa Rica, requesting access

¹ A cluster here is defined as a set of socio-economic activities in and around NPBRs.

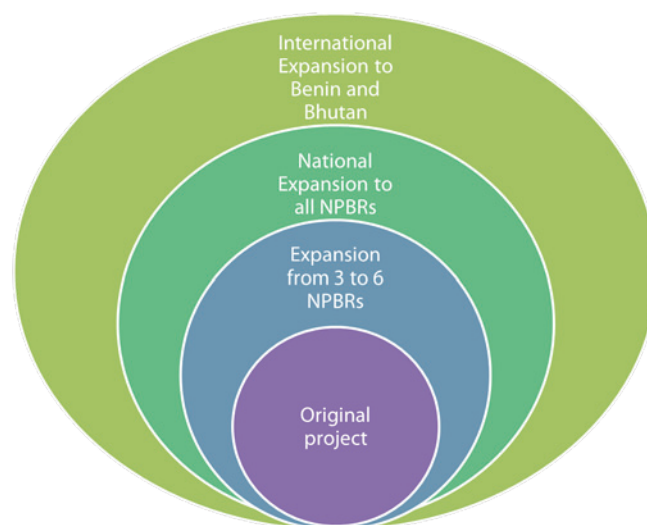
to the data gathered by the study. However, the data gathered by CINPE had its limitations as well. First, the data used for the national survey was diffused and only had national aggregates, thus limiting the amount of in depth analysis that could be conducted. Second, the project had only been conducted in three of Costa Rica's 28 national parks, and there were many more biological reserves and other protected areas that needed to be studied. Driven by the desire to improve their data and fulfill the national demand, in 2008 CINPE applied for funding from the PSC under the management of Fundacooperacion for Sustainable Development. The PSC funding and coordination provided CINPE with the opportunity to not only expand their project at the national level, but also to test their methodology internationally with the participation of both Benin and Bhutan (See Figure 1).

CINPE realized that the situation on the ground may have changed during the six-year period between the first and second projects. To help improve and validate the methodology, CINPE ran a series of workshops where they presented their matrix to members of SINAC, non-governmental organizations (NGOs), representatives of civil society and researchers from other national and public organizations. Once the methodology was agreed upon, CINPE trained members of SINAC with the aim of eventually transferring the entire project to this national body. As with the 2003 project, data for the national survey was gathered from various national organizations including ICE, ICT and INBio.

The three areas were identified in a participatory manner, based on their usefulness to the project, availability of data and their previously established relationship with PSC -Corcovado National Park and Isla de Caños Biological Reserve, Palo Verde National Park, and Rincón de la Vieja National Park. Once data had been collected, CINPE held consultative meetings with local community members and stakeholders.

To expand internationally, CINPE sought the participation of Bhutan and Benin. The response from Bhutan was immediate – the Ministry of Agriculture and Forests expressed eager interest in taking ownership of the project. In Benin, an NGO called the Beninese Centre for Environment and Socioeconomic Development (CEBEDES) agreed to take on the project. CINPE and PSC organized workshops to train the teams in Bhutan and Benin in the methodology and the use of the matrix, but the key element of the training was to empower the country teams to adapt and validate the methodology to their own distinct contexts. The national training workshops and consultative meetings encompassing a variety of sectors, including economic and environmental, marked the beginnings of a strong

Figure 1: Scaling up of the original project



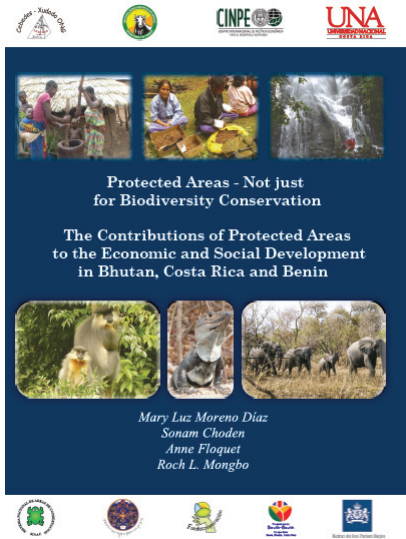
Source: Fundacooperacion, 2010.

partnership that was crucial to the success of the project in all three countries and that highlighted the benefits of South-South cooperation. The same procedure that was held in Costa Rica was executed across six parks in the partner countries: Bumdeling Wildlife Sanctuary (BWS), Jigme Dorji National Park (JDNP) and Jigme Singye Wangchuck National Park (JSWNP) in Bhutan; Pendjari Biosphere Reserve, Tchaourou Toui Kilibo Forest (TTKF) and Hlanzoun Community Protected Area in Benin.

In Costa Rica, the PSC Project found that by 2009, NPBRs generated a total annual income of US\$20.6 million for people directly employed in these areas. An additional US\$3 million of income was generated for people indirectly involved with the parks, such as travel agents, guides, hotel and restaurant owners and car rental agencies. While the total number of jobs is not available, SINAC alone employs 587 people directly related to protected area management (Moreno Diaz, Choden, Floquet & Mongbo, 2001).

Current Operations

By August 2010, the scaled up PSC Project in all three countries was complete. Individual reports on each case study were published in addition to the national reports. This was followed by a long chain of presentations at local, regional and national levels. For example, the Bhutanese Ministry of Agriculture and Forests invited the investigation teams from all participating countries to present the PSC Project at a national seminar held in Thimpu, Bhutan.



This recently published book by CINPE summarizes the results of the project in all three countries, and has been widely distributed to various stakeholders, including government and non-governmental organizations, both in Costa Rica and abroad.

being launched, the Minister of Environment and Energy in Costa Rica, Carlos Manuel Rodriguez, was trying to augment funds for environmental conservation. To do this he needed concrete data that could prove that environmental conservation had developmental benefits beyond those of protecting resources. CINPE's study of the socio-economic contributions of NPBRs to examine how protected areas can aid poverty alleviation, community empowerment and sustainable development was exactly the type of data that would be needed to argue for greater protection. As a result, the Ministry of Environment and Energy today has made a stronger commitment to conservation, especially of the pacific coast (Umaña, 2008). Costa Rica has declared its intention to be the first carbon free country in the world by 2021, and is currently actively working towards that goal.

Just like in 2003, CINPE is currently engaged in making the data gathered by the scaled up PSC Project readily available for different national, regional and local organizations. In particular, CINPE has been collaborating with SINAC in providing data and any other assistance that SINAC requests with respect to the project. In Bhutan the recommendations made by the project are already being implemented by the Ministry of Agriculture and Forests. In Benin, the interest of the Environmental and Agricultural Ministry has increased and will hopefully translate into further efforts for NPBR impacts in the near future.

Key Components of Success in the Pilot Initiative

One of the main factors responsible for the success of the initial project was the multi-disciplinary partnership between CINPE and INBio. The funding that INBio provided was of course crucial to the project, but the effects of the partnership extend far beyond financial contributions. While CINPE's expertise lies in the areas of economics and politics, INBio specializes in bio-diversity. A comprehensive study of the socio-economic contributions of protected areas would have been impossible without a profound understanding of both economics and the biodiversity of NPBRs. The partnership allowed CINPE to draw on INBio's extensive resources to understand biodiversity and how NPBRs affect the lives of communities around them. CINPE then added its own economic expertise to expand the project to the national level and to develop the innovative methodology.

Another vital element in the success of the project was the high government's strong support. At the time that the project was

Equally important was CINPE's affiliation to the National University of Costa Rica (UNA), whose main objective is to promote sound public policies for the common good. This objective translated into very strong support for the project because of the obvious positive impact that the project would have on environmental conservation policy. Other than providing an extensive network of resources for research and facilitating CINPE's outreach to various government organizations for data collection and consultation, UNA also permitted the researchers the flexibility needed to complete the project. Additionally, being affiliated with a nationally recognized public institution makes CINPE easily accessible to any government agency that needs their data or suggestions.

Key Drivers and Enablers in the Scaling Up Process

A culture of environmental conservation and expansion

Costa Rica's environmental sustainability story can best be described as riches to rags to riches transformation in environmental terms. Costa Rica, a tiny Central American, tropical country, boasts 500,000 species of flora and fauna, that represent 4 percent of all species on Earth (Moreno Diaz, Choden, Floquet, & Mongbo, 2001). Though efforts to protect this incredible biodiversity can be traced back to the 1800s, a lack of implementation and enforcement coupled with economic pressures on land rapidly depleted the country's natural wealth. Despite declaring Wildlife Protected Areas in 1945 and establishing two national parks in 1955 (Moreno Diaz, Choden, Floquet, & Mongbo, 2001), by the 1980s, Costa Rica was

largely recognized as having one of the worst environmental degradations in the world, with estimates ranging from 3.5 percent to 7.6 percent of land use (De Camino, Segura, Arias, & Pérez, 2000).

Although the decade of the 1980s still saw rapid resource depletion, for reasons illustrated below, by the 1990s Costa Rica had made significant strides in conservation. Costa Rica's hesitant foray into sustainable development has today turned into a national priority. Today 26 percent of its territory is protected areas, net forest loss has been converted to net gain, and Costa Rica has pledged to be the first carbon neutral country by 2021. In 2008, Costa Rica signed a US\$90 million environmental protection law. Funds promised from the World Bank, Global Environmental Facility and the UN Environmental Protection Programme exceeded US\$42.9 million, while the government pledged US\$47 million. The government has also committed to planting seven million trees in 2008 alone (Keogan, 2008). Similar efforts are underway in Benin, where 20 percent of the country is officially under protection and Bhutan where 42.7 percent of the land is protected.

Economic incentives and fiscal space

With a small domestic market, but very fertile soil conditions, Costa Rica initially promoted an export-oriented economy focused on bananas and coffee (Campbell, 2002). Although this approach led to noticeable economic growth, it also began to take its toll on the environment. By the 1980s, Costa Rica was suffering an annual deforestation rate of 30,000 to 50,000 hectares, one of the highest in the world (De Camino, Segura, Arias, & Pérez, 2000). This alarming environmental degradation was coupled with a global recession that substantially reduced the world demand for Costa Rica's agricultural exports and stalled the country's economic growth. It was under such circumstances that Costa Rica turned its attention to tourism.

By 1993, tourism had surpassed agricultural exports in foreign earning, and this growing importance of tourism to the economy encouraged non-consumptive use of natural resources (Campbell, 2002), which in turn served as a strong incentive for Costa Rica's environmental conservation efforts. Researcher De Camino (2000) estimates that post-1986, Costa Rica was experiencing a net gain in forest cover of 7000 hectares per year. These efforts were met with funding opportunities from a variety of donors including the World Wildlife Fund and The Nature Conservancy as well as from countries like the United States, Canada, the United Kingdom and the Scandinavia countries that further facilitated conservation efforts.

On the micro level, this was illustrated by the PSC project. After the conclusion of the original project, CINPE was faced with funding constraints. The original project had been funded by INBio, but those funds were not enough for expansion. Fortunately, in 2008 CINPE forged a partnership with Fundecooperacion, whose funding (close to US\$720,000) and guidance has been vital for the expansion of the project both in Costa Rica and in Benin and Bhutan. CINPE's financial independence allowed it a rare flexibility developing a project as per the original aspirations.

External catalysts

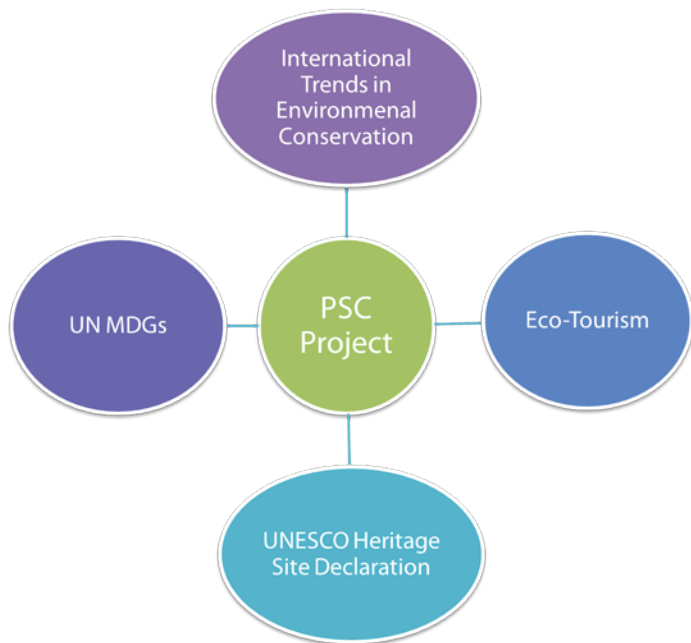
Economic incentives to protect the environment were further strengthened by international conventions and efforts. While Costa Rica had established Wildlife Protected Areas as early as 1945, many of the country's NPBRs, including the Monteverde Forest, Cabo Blanco Nature Reserve and Rincón de Osa biological station, were established with the help of foreign lobbyists and initiators, mostly from the United States and Scandinavia. Even after the successful evolution of national initiative, foreign lobbyists continued pressuring Costa Rica (Campbell, 2002), ensuring that national efforts and enthusiasm do not subside.

Further pressure came from international conventions signed by Costa Rica. One of the first impulses to stir Costa Rica's environmental efforts back on track was the 1942 Washington Convention on the Protection of Wildlife and Panoramic Beauties. Participation in this convention encouraged environmental legislation and inspired commitment to past conservation initiatives. By 2007, Costa Rica had signed or ratified at least 28 international conventions. On the national level, these conventions ensured consistent conservation efforts. On the local level they facilitated scaling up of initiatives like the PSC Project (See Figure 2).

An additional catalyst was the declaration of several Costa Rican NPBRs, including Isla del Coco National Park, as UNESCO World Heritage sites. National pride associated with such prestigious international recognitions created a general sense of support from the constituency for national initiatives that promoted environmental protection, and generated national support for grassroots efforts.

The pressures created by international trends specifically for environmental protection were also buttressed by the Millennium Development Goals (MDGs) ratified by the UN member states in 2000. The project proved that NPBRs not only promote environmental sustainability, but also address other UN MDGs

Figure 2: External catalysts aiding the project scale up



such as poverty eradication and community empowerment by creating employment and local economic opportunities. This realization justified national efforts and investments in natural resource protection in Costa Rica, as well as in Benin and Bhutan.

Finally, the scale up of the project was also strongly motivated by the increasing amount of international eco-tourism in Costa Rica. The project found that about 58.9 percent of foreign tourists that enter Costa Rica by air come specifically for NPBRs, and CINPE estimates that these visitors generated a revenue of US\$952.53 million for Costa Rica in 2009. Given the importance of tourism to Costa Rica's economy, CINPE realized that the project needed to be scaled up to a national level to demonstrate exactly how much tourism is determined by NPBRs. Increasing eco-tourism in the country provides the perfect economic argument to scale up the project and to continue with sustainability efforts at the national level. This same argument is now being used in Bhutan and Benin following the project in these countries.

Conducive policy environment

Scaling up a local level project to the national level is an endeavor that cannot be accomplished without conducive enabling environment through appropriate laws and policies. The scale up of the PSC Project was realized through strong policy initiatives taken by the Government of Costa Rica, and the international

transfer of the project was facilitated by supportive national policies in Benin and Bhutan.

One of the most important environmental policies passed in Costa Rica was Forest Law No. 4465 (1969). The law solidified national participation in environmental conservation. It has not only established categories of protected areas and a process for creating them (Campbell, 2002), but also assigned the responsibility of managing these areas to the government (De Camino, Segura, Arias, & Pérez, 2000). This law encouraged a rapid increase in protected areas creating a legal framework for sustainability efforts. Researchers of the PSC Project cite this law for creating a base from which the project could take off.

The centralized national structure of environment management in Costa Rica was decentralized in 1996 with the passing of Forest Law No 7575. The law provides for decentralization through delegation of authority to regional and local administrators like FONAFIFO and the National Forestry Office Decentralization has resulted in greater responsibilities granted to the private sector, facilitating greater efficiency (De Camino, Segura, Arias, & Pérez, 2000). Decentralization and devolution of responsibility is now also a priority in Benin and Bhutan.

Costa Rica also established two important policies that provided incentives to the private sector to protect the environment. The first was a Certificate of Forestry payment in 1986. This certificate was awarded to farmers who reforested their property, thus shifting the responsibility from government bureaucrats to farmers (Moreno Diaz, Choden, Floquet, & Mongbo, 2001). This programme has helped reforest 23 percent of the country's planted area (De Camino, Segura, Arias, & Pérez, 2000).

Another important instrument was the Payment for Environmental Services implemented in 1996 by Forest Law 7575. Under this policy, the Costa Rican Government pays land and forest owners for the environmental services that they produce when practicing sustainable land use and forest management. This initiative to date paid more than 4,400 farmers and forest owners to reforest their farms and manage their forests in a sustainable manner (Russo & Candela, 2006). The PSC Project estimates that the Payment for Environment Services programme augmented the income of local communities around NPBRs by US\$317,918 in 2009 alone.

Conducive institutional space

The PSC Project illustrates the importance of national institutions to environmental protection. One of the objectives of the pilot project from the onset was to eventually transfer it to national authorities. This was made possible because of the existence of SINAC, which was established in 1995 under the Biodiversity Act with the purpose of creating a decentralized and participatory system of natural resource management that would allow for a coordination of conservation efforts between different national bodies (Moreno Diaz, Choden, Floquet, & Mongbo, 2001). SINAC encompasses 11 regional administrative units called Conservation Areas which are responsible for their own decision making and programme implementation within their geographic jurisdiction. Each Conservation Area is then further divided into national parks, biological reserves and other protected areas. At the highest institutional level SINAC is represented by the National Conservation Areas Council (CONCAC). This council creates a space where national officials and representatives of society can engage in decision making.

According to CINPE researchers, the existence of SINAC was vital for the growth of the project. SINAC was important to the scaling up of the project not only in actively helping the development of project activities, but also in creating a mechanism through which the project could be expanded nationally. The Conservation Areas under SINAC and subsequently the NPBRs provided CINPE with the physical space that it needed to develop the methodology. Through SINAC, the government ensures an institutional presence in each region of the country, and now empowered by concrete data of how users of NPBRs benefit from these areas, SINAC can delegate more responsibility to local communities and grassroots initiatives. SINAC's role in the project is only one example of the support that it has provided to other national and local initiatives and is exemplary of how strong institutional structures have helped Costa Rica achieve substantial conservation results.

Strong leadership and ownership

Costa Rica succeeded in taking advantage of the strong institutional space because of the unwavering local and national leaderships. Costa Rica's conservation efforts escalated with the passing of Forest Law No 4465 in 1969, which enabled the national government to take charge of conservation. Although conservation responsibilities are now decentralized, the national government is still in charge of the overall sustainability efforts. The government continues to pass legislation, fund and implement initiatives, make declarations and set national goals to ensure persistence in conservation.

The government's leadership is equally matched by efforts of the civil sector. Costa Rican Network of Private Reserves (CNPR), founded in 1996, is an NGO that represents the interest of private natural resource owners. With an aim of protecting this land, CNPR attempts to consolidate government initiatives (De Camino, Segura, Arias, & Pérez, 2000).

The PSC Project is a good example of how local leadership can make an impact at the national level. As a local organization,

Box 1. PSC Project in Bhutan

Under the guidance of PSC, CINPE reached out to Bhutan in 2008 to propose a partnership for studying the socio-economic impacts of protected areas in the country. This proposal was met with great enthusiasm from the Ministry of Agriculture and Forests that is responsible for looking after national protected areas and natural resources in Bhutan.

The project found that at the national level, protected areas contribute US\$26.441 million, or 2 percent of the national GDP, and has allowed the country to install hydropower generation plants of 1488 MW. This not only ensures sustainable energy use, but export of this energy also constitutes 40 percent of Bhutan's national revenue. Protected areas in Bhutan have also been responsible for substantial growth in tourism, where the number of tourists increased by 31 percent between 2007 and 2008 (Moreno Diaz, Choden, Floquet, & Mongbo, 2001). The Government of Bhutan estimates that the increase in tourism created an additional 2600 jobs in 2010 (Tourism Council of Bhutan, 2010). Moreover, the ministry employs 1288 staff dedicated only to forest protection.

Protected areas in Bhutan have also helped protect 42.71 percent of the total land area. Importantly, these areas not only protect natural resources, but also the communities living within them. An estimated 2,070 or 1.7 percent of Bhutanese households live within protected biological areas. Declaring NPBRs as direct benefits to these households.

Since the project was fully owned by the ministry, the results and recommendations of the project have been recognized as directly relevant to government policies, with implementation efforts already underway. The government has pledged greater support for sustainability efforts. The ministry already spends 25 percent of its budget on forest protection and park services, and this budget is set to increase in the coming years. Following Costa Rica's example, the government is also looking into expanding eco-tourism as a further incentive to conserve the environment.

CINPE had the advantage of knowing precisely the gaps in environmental conservation in Costa Rica. It also had an easier time entering the communities that were being studied, something that is always a problem for outside organizations that are forced to fight to win over the local population before they can start their work. CINPE also had access to SINAC, which makes and implements Costa Rica's environment policies. This allowed CINPE to develop a project tailored specifically to national needs. The effectiveness of such a public-private partnership is reflected at the national level where by 1998, efforts of private, national and international companies had reforested 17 percent of Costa Rica's planted areas (De Camino, Segura, Arias, & Pérez, 2000).

According to a recent United Nations Development Programme (UNDP) report on scaling up the MDGs, local actors such as the government, local communities, the private sector and civil society play a pivotal role in achieving the MDGs (UNDP, 2010). Fortunately, Costa Rica's long history of conservation has developed a very strong culture of ownership of natural resource conservation. CINPE, for instance, had the support of different stakeholders who worked hard to ensure that different local and national actors felt a sense of ownership of the projects. A survey conducted by UNIMER (private enterprise in market research and public opinion) in 2002 found that 45.2 percent of Costa Ricans identify themselves as environmental conservationists, actively engaging in recycling, composting and preserving natural resources (UNIMER, 2002). This translates into independent individual and group conservation initiatives around the country. Costa Rica's national newspaper, *La Nación*, recently published an article on individual efforts at environmental protection, that demonstrate a wide range of efforts by an even wider variety of actors. Individual efforts are bolstered by more organized groups like forest owner organizations that provide technical support for reforestation and forest managements. Ownership at the microlevel has also fed into ownership at the macrolevel, where the government takes responsibility for sustainability.

The importance of local and national leaderships becomes clear when comparing the successes in Bhutan and Benin. The project was successful in both these countries as it was led by local organizations. In Bhutan the project had an immediate impact on government policy because the project was executed by the Ministry of Agriculture and Forests (See Box 1). Since the ministry is responsible for all environmental policy making, it could tailor the project according to local and national needs and ensure that the results were relevant. In Benin the impact was less pronounced because it was executed by an NGO rather than a

Box 2. PSC Project in Benin

Under the guidance of PSC and the leadership of CINPE, the project in Benin was spearheaded by a local NGO called Beninese Centre for Environment and Socioeconomic Development (CEBEDES). As of 2009, 20 percent of Benin's area, including both forests and savannahs, was officially under protection. These protected areas contribute US\$41 million or 0.8 percent to the national GDP of Benin, as well as to the livelihood of the local communities living in and around them. In 2008, protected areas generated a total income of more than US\$26 million for the local communities, who additionally earned 30 percent of the income generated from tourism in these areas. Although aggregate data at the national level is unavailable, the project found that three protected areas – Pendjari Biosphere Reserve, Tchaurou Toui Kilibo Gazetted Forest and Hlanzoun Community Protected Area -- were responsible for at least 12,800 jobs in 2009 (Moreno Diaz, Choden, Floquet, & Mongbo, 2001).

Although Benin faces many challenges to natural resource conservation, co-management practices have produced the greatest results. Cooperation between government entities and local communities increased flora and fauna in the Pendjari Reserve by more than 20 percent between 2000 and 2005. Additionally, Benin has been taking advantage of local folklore of sacred forests to help conserve these areas (Moreno Diaz, Choden, Floquet, & Mongbo, 2001). The results of the project were unanimously considered critical for raising awareness of the importance of protected areas in the country, and have been used as an argument for greater investment in sustainable development and a greater push for eco-tourism.

government entity, but the project enabled Benin to take the first steps in the right direction (See Box 2).

Local, national and international partnerships

The sense of ownership also fed into strong partnership links formed with organizations that would have access to this kind of data. These organizations included, but were not limited to, ICE, ICT, INBio, and National Fund for Forest Financing (FONAFIFO) and the Central Bank of Costa Rica. Without the assistance of these partners in data collection and coordination, the project would not have had access to macrolevel data and would have been limited to the data gathered by researchers for the case studies. Such partnerships not only provided useful feedback about the project, but also helped with funding, administration and data collection.

On the national level the project was aided by the partnership with national organs, at the microlevel the project depended on the cooperation of the NPBR administrative staff, the private sector and local communities around the NPBRs studied. Furthermore, CINPE also partnered with PSC, which was imperative for financing the scaling up of the project through funding obtained from the Netherlands. While the original project was financed by INBio, scaling up to the national and international levels required significantly greater funds and coordination. Recognizing the immediate benefits of scaling up the project, PSC agreed to not only fund the national expansion, but also offered to help take the project to the international stage through Bhutan and Benin. The role of PSC was crucial in both financing the project and in facilitating the international coordination between the three countries, After the completion of the project, PSC agreed to further fund the publishing of a book that summarizes the results of the project. PSC continues to be involved with the project to this day.

Learning from South-South Cooperation

Successes in Costa Rica developed a strong case for South-South cooperation. The success of the project in Costa Rica depended to a great extent on what was learned from the international collaboration between Costa Rica, Bhutan and Benin. Although skeptics might question the value of the collaboration between such culturally and geographically distinct countries, it is precisely their differences that helped develop and refine the methodology that allowed CINPE to successfully expand the project in Costa Rica. The South-South cooperation between these countries permitted not just the exporting of a Costa Rican methodology, but also provided the feedback, monitoring and evaluation needed to ensure a successful national scale up.

Even though Benin had only one national park (but other conservation areas) and neither of the two countries (Benin and Bhutan) depended on eco-tourism as much as Costa Rica, suggested ways that CINPE could revise their original methodology to better suit the national demands in 2009. Such learning and knowledge sharing between the partner countries was responsible for a lot of improvements in the project.

The collaboration also ensured that the project stayed on track and met all the requirements. Research teams from the three countries met at least once every six months to provide updates and engage in collaborative discussions. This was supplemented by regular communication between the research teams to clear doubts and answer questions. Each team got an opportunity to travel to project sites in partner countries and CINPE researchers

stressed the critical role of knowledge sharing. The importance of such South-South cooperation was perhaps felt even more strongly in Benin and Bhutan. Both Benin and Bhutan stood to learn from Costa Rica's history of government leadership, local ownership, and strong partnerships. Costa Rica's example is being emulated by countries throughout the world, and an opportunity to work closely with some of the people who engineered Costa Rica's success has been imperative to Benin and Bhutan, as shown by the success of the project in these two countries.

Lessons Learnt and Conclusion

The success of the PSC Project nationally and internationally highlights the following recommendations for promoting environmental sustainability:

- 1) **NPBRs have environmental, social and economic benefits.** Although NPBRs tend to normally be seen as extra costs for the government, the PSC Project indisputably refutes this fact. The results showed that NPBRs not only helped conserve and reforest degraded land, but also helped generate income through tourism and job creation. National experiences in Costa Rica, Benin and Bhutan bear witness to this fact. Results of the PSC Project showed that NPBRs in Costa Rica contributed more than 5 percent of the national GDP, and have generated US\$ 23.6 million in direct and indirect employment income. In Benin, NPBRs have helped raise US\$26 million for local communities, while in Bhutan the livelihood of 1.7 percent of the households depends directly on protected areas.
- 2) **International actors and pressures can play a role in conservation** but only as motivators for national actions. Many important conservation efforts in Costa Rica were initiated by foreigners, and the indispensability of international funding cannot be denied, but these efforts would have been wasted had they not been matched by national commitment, local enthusiasm and hard work. Same interaction between international and national actors is also noted in Benin and Bhutan.
- 3) **National government plays a pivotal role in sustainability.** Much of Costa Rica's success can be directly attributed to the role of the national government. The government not only took on the management of conservation efforts, but also implemented policies that ensured protection of natural resources. Additionally, the government was also responsible for establishing institutions like SINAC and NPBRs that by 2009 had protected about 26 percent of national territory.

- 4) **Participatory management is vital for sustainability.** As the experiences in Costa Rica, Benin and Bhutan indicate, environment conservation efforts are successful only when national efforts are matched by participatory management. In Costa Rica, local communities and private land owners have taken on the responsibility to contribute positively to preserve their environment and help the country reach its environmental goals.
- 5) **Provision of economic incentives to local stakeholders encourages conservation.** A policy that has been hailed nationally in Costa Rica, and now being emulated in other countries, is Payment for Environmental Services. By paying private land owners to practice sustainability and conservation, the programme helps private owners balance personal gains from exploitation of land with environmental conservation and sustainability.
- 6) **South-South cooperation is imperative for the sharing of knowledge and best practices.** The experience between Costa Rica, Bhutan and Benin has shown that South-South cooperation can help developing countries overcome the constricting donor-recipient relationships and learn best practices from each other. On the macrolevel this cooperation translates into better government initiatives, more effective peer monitoring and more notable results.

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