



BOTICARIO GROUP FOUNDATION FOR NATURE PROTECTION: CONTRIBUTION UNDER THE NAIROBI WORK PROGRAM

A. Adaptation planning processes addressing ecosystems and interrelated areas such as water resources:

- **Description of relevant activities and collaborating partner institution/s (if any)**

[Boticário Group Foundation for Nature Protection](#) is a non-governmental organization dedicated to the conservation of nature in Brazil. We started our activities in 1990 with the grant making of scientific research and became one of the main funders of environmental projects in the country. Through our Private Natural Reserves, we conserve more than 11 thousand hectares of Atlantic Forest and Cerrado - the two most threatened biomes in the country - which are biodiversity hotspots and also part of Biosphere Reserves.

Research on climate and biodiversity is scarce, especially in the Atlantic Forest, one of the few biodiversity hotspots and habitat of endemic and endangered species. This lack of knowledge makes it difficult to create successful adaptation strategies, especially based on ecosystem services. Thus, the Boticário Group Foundation launched the Bio&Clima Lagamar initiative in 2010, encouraging research on the impact of climate change on biodiversity with a focus on the [Lagamar Protected Areas Mosaic](#), a set of protected areas located in the coast between the southeastern and southern regions of Brazil. The beginning of this process was a Seminar that gathered specialists from different areas of knowledge and the opening of a call for proposals with the objective of collecting scientific support for the elaboration of guidelines for natural areas management aiming to reduce the loss of biodiversity caused or intensified by climate change. In order to integrate the projects and promote the discussion of results, workshops were held annually over five years. In addition to the technical experts responsible for the research, we invited climate specialists, researchers with a successful history in stimulating the creation of public policies, managers of Lagamar protected areas and of public agencies and programs. The document "[Preliminary Guidelines for Managing Natural Areas Considering the Impact of Climate Change on Biodiversity in the Lagamar Protected Areas Mosaic Region](#)" was presented to state and federal protected area managers and was also presented at [VIII Brazilian Congress on Protected Areas](#), one of the largest scientific events on Biodiversity Conservation in Latin America, organized by the Boticário Group Foundation.

In parallel, we perceived the importance of a theme that gained strength and relevance in the international scenario - Ecosystem-based Adaptation (EbA) - which consists of the use of ecosystem services and biodiversity as part of a broader strategy to assist people and communities to adapt to the negative effects of climate change at local, national, regional and global levels (UNEP). In order to contribute to the adaptation planning processes addressing ecosystems, considering the natural environments as part of the strategy, the Boticário Group Foundation elaborated the report: "[Ecosystem-based Adaptation: opportunities for public policies in climate change](#)", in 2014. ICLEI Brasil was hired for the technical execution of the report, under the coordination of the Boticário Group Foundation, with the support of the [Climate Observatory](#) - network of Brazilian NGOs that work with climate change. The report brings the

concept of EbA as well as practical examples of its application in Brazil and all over the world - including some cases with a comparative analysis between the cost-benefit of the implementation of EbA projects and green infrastructure with conventional engineering solutions ("gray infrastructure") - and guidelines to include EbA in public policies.

- **Key results**

In Brazil, the number of projects with EbA strategies is still incipient; however, the few experiences found demonstrate the potential of this strategy which can be used in combination with conventional engineering and considering cost-effectiveness and co-benefits. Based on the research, a number of objective recommendations were suggested in order to include EbA in public policies that help address adaptation to climate change focusing on the contribution to the National Adaptation Plan. As the Boticário Group Foundation was in contact with the Ministry of Environment since the early stages of the study, the government was able to contribute with considerations ranging from the Term of Reference description throughout the preparation of the study, which made possible considering the final document during the construction of the [National Adaptation Plan](#) (NAP), launched by the government in May 2016. The NAP brings EbA as one of its principles and the main challenge of this contribution was to find EbA strategies for each of the thematic chapters that constitute the plan. An [English version of the report](#) was also sent to the Convention on Biological Diversity and other international partners. We also hope to contribute to the national and local government strategy for disaster risk reduction, risk management and adaptation to climate change, always considering the conservation of biodiversity. As one of the NAP goals, we are active partners on the development of a [collaborative platform](#) on adaptation, which will be launched by the end of 2017. Besides the Ministry of Environment, we were requested to present the report in many other forums (Universities, Industry Associations, etc.).

- **Description of lessons learned and good practices**

We've realized that disseminating the concept of EbA is extremely relevant, as most decision makers are not aware of the possibility of using ecosystem services in adapting to climate change or even other demands. The cycle for the implementation of EbA strategies in public policies foresees 5 main steps: i. Appropriation of the concept; ii. Integration into existing policies and programs; iii. Economic evaluation; iv. Prioritizing non-regret measures; and v. Economic Incentives. Ecosystem-based Adaptation strategies should be considered, wherever possible, as they normally present much lower costs and they combine benefits such as biodiversity conservation and the maintenance of environmental services which help society in adapting to climate change. Many sectors of society are eager to understand more about EbA strategies for adaptation and disaster risk reduction and the main challenge now is to quantify the results in order to prove that they're cost-effective and bring additional benefits such as biodiversity conservation and better quality of life.



- **Description of key challenges**

Financing or funding for EbA strategies could be a problem in Brazil, as usually projects based on conventional engineering are easier to be approved by funders and already have a plain process, EbA alternatives are not considered as infrastructure that can be financed. Identifying cost-benefit and cost-effectiveness is also a challenge, as many decision makers have requested us for this specific information and there's still room for improvement on quantifying the benefits, return of investment and indicators.

- **Planned next steps (as appropriate)**

Boticário Group Foundation organized in 2016 the Workshop "Nature-based Solutions: opportunities for adaptation to the new climatic scenario" with the objective of guaranteeing a more natural environment that will increase society's resilience – and Ecosystem Services play a pivotal role here. This workshop integrated regional actors and experts in climate seeking opportunities to use nature-based solutions (NBS) to solve demands identified by society. One alternative that was raised during this meeting was the environmental recovery of a river basin to reduce the sedimentation and dredging costs of a downstream commercial port at the mouth of the river by the sea near the Port of Paranaguá, one of the largest ports of Brazil.

As a next step, the diagnosis of a society's demand for the implementation of an NBS project will be carried out, demonstrating the importance of maintaining protected areas to guarantee the population's well-being and increase quality of life. In addition, we are developing a study on the [natural infrastructure for water security in Brazil](#), in partnership with [WRI](#) International, [IUCN](#), [TNC](#) and [IBIO](#). This study aims to elucidate the main bottlenecks for the implementation of nature-based solutions for water security in Brazil using as a case study focusing on 3 of the largest capitals in Brazil: São Paulo, Rio de Janeiro and Vitória.

Contact us:

Andre Rocha Ferretti AndreF@fundacaogrupoboticario.org.br

Juliana Baladelli Ribeiro ribeiroj@fundacaogrupoboticario.org.br

<http://www.fundacaogrupoboticario.org.br/en/Pages/default.aspx>