Suggestions on Funding Mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve
Suggestions on Funding Mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve
Human’s and nature are often positioned on opposite poles, known as the homo-centric and eco-centric poles. However, this position is not in an equal position, as human’s see nature as an object to be used for their own interests or benefit. The decreased carrying capacity of the environment which can lead to natural disasters, raises our awareness of the need to harmonize human activities with nature.

This encouraged the United Nations Educational Scientific and Cultural Organization (UNESCO) to launch a programme called “Man and Biosphere” (MAB), or “Humans and Biosphere” in 1971. This was followed up with development of a network of biosphere reserves around the world. In Indonesia, the authorized agency for the MAB program is the Indonesian Institute of Sciences (LIPI), however, the implementation of the activities is carried out by the managers of the biosphere reserves at each location.

In Indonesia, there are 16 biosphere reserves or also known as “Science for Sustainability Support Sites”. One of them is the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve (BKDSKH Biosphere Reserve), which was established by UNESCO on July 25, 2018. The BKDSKH Biosphere Reserve covers the entire area of Kapuas Hulu Regency in West Kalimantan. However, the attention of various parties to jointly develop biosphere reserves is still minimal because the direct economic benefits from its management have not yet yielded significant results. In addition, there are no regulations that underlie the formation of a management organization that structurally manages biosphere reserves. In addition, there is also no clear funding for the implementation of its management.

Learning from the experience of coordinating the management of biosphere reserves in other part of the world such as in Europe, funding for biosphere reserves can be managed in several ways. One way is to work with the private sector using “branding” of products (goods and services) produced from the biosphere reserves. For this example, a jurisdictional approach can be an advantage to the BKDSKH Biosphere Reserve, which covers the whole area of Kapuas Hulu District.

This book presents the results of an analysis by economic expert regarding mechanism for financing biosphere reserves which are based on the current financial laws and regulations in Indonesia. The results of this analysis can be used as a reference or consideration for funding the BKDSKH Biosphere Reserve.

Hopefully this book will be useful for the biosphere reserve management, particularly the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve. So that it can improve the local economy and welfare of the community in the framework of sustainable development.

Jakarta, September 2020

Georg Buchholz
FORCLIME Programme Director
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKDSKH BR</td>
<td>Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve</td>
</tr>
<tr>
<td>MAB</td>
<td>Man and Biosphere</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>GoI</td>
<td>Government of Indonesia</td>
</tr>
<tr>
<td>LIPI</td>
<td>Lembaga Ilmu Pengetahuan Indonesia/Indonesian Institute of Sciences</td>
</tr>
<tr>
<td>KLHK</td>
<td>Kementerian Lingkungan Hidup dan Kehutanan/Ministry of Environment and Forestry</td>
</tr>
<tr>
<td>SAMOTA</td>
<td>Teluk Saleh, Pulau Moyo, and Gunung Tambora/Saleh Bay, Moyo Island, and Mount Tambora</td>
</tr>
<tr>
<td>PP</td>
<td>Peraturan Pemerintah/Government Regulation</td>
</tr>
<tr>
<td>Perda</td>
<td>Peraturan Daerah/Local Government Regulation</td>
</tr>
<tr>
<td>LAP</td>
<td>LIMA Action Plan</td>
</tr>
<tr>
<td>DAS</td>
<td>Daerah Aliran Sungai/Watershed</td>
</tr>
<tr>
<td>BPS</td>
<td>Badan Pusat Statistik/Central Bureau of Statistics</td>
</tr>
<tr>
<td>BNN</td>
<td>Badan Nasional Narkotika/National Narcotics Agency</td>
</tr>
<tr>
<td>Kemenkeu</td>
<td>Kementerian Keuangan/Ministry of Finance</td>
</tr>
<tr>
<td>Ris</td>
<td>Research Institutes</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-Governmental Organizations</td>
</tr>
<tr>
<td>NSA</td>
<td>Non-State Actor</td>
</tr>
<tr>
<td>WWF</td>
<td>World Wide Fund for Nature</td>
</tr>
<tr>
<td>PA</td>
<td>Protected Area</td>
</tr>
<tr>
<td>US EIA</td>
<td>United States Energy Information Administration</td>
</tr>
<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species</td>
</tr>
<tr>
<td>USD</td>
<td>US Dollar</td>
</tr>
<tr>
<td>BTFEC</td>
<td>Bhutan Trust Fund for Environmental Conservation</td>
</tr>
<tr>
<td>BIOFIN</td>
<td>Biodiversity Finance Initiative</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>TFCA</td>
<td>Tropical Forest Conservation Act</td>
</tr>
<tr>
<td>FUNBIO</td>
<td>Fundo Brasileiro Para A Biodiversidade</td>
</tr>
<tr>
<td>IDR</td>
<td>Indonesian Rupiah</td>
</tr>
<tr>
<td>TANAPA</td>
<td>Tanzania National Parks Authority</td>
</tr>
<tr>
<td>GEF</td>
<td>Global Environment Facility</td>
</tr>
<tr>
<td>ACC</td>
<td>Asian Conservation Company</td>
</tr>
<tr>
<td>MPAs</td>
<td>Marine Protected Areas</td>
</tr>
<tr>
<td>RCCC UI</td>
<td>Research Center for Climate Change University of Indonesia</td>
</tr>
<tr>
<td>DOC</td>
<td>New Zealand Department of Conservation</td>
</tr>
<tr>
<td>INBio</td>
<td>The National Biodiversity Institute</td>
</tr>
<tr>
<td>DANIDA</td>
<td>Danish International Development Agency</td>
</tr>
<tr>
<td>PWS</td>
<td>Payment for Watershed Services</td>
</tr>
<tr>
<td>ADA</td>
<td>Austrian Development Agency</td>
</tr>
<tr>
<td>AEPC</td>
<td>Government of Nepal’s Alternative Energy Promotion Center</td>
</tr>
<tr>
<td>EUR</td>
<td>European Monetary Unit</td>
</tr>
<tr>
<td>VER</td>
<td>Voluntary Emission Reduction</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>BSP</td>
<td>Government of Nepal’s Biogas Sector Partnership</td>
</tr>
<tr>
<td>ONF</td>
<td>Government of France’s National Forest Office</td>
</tr>
<tr>
<td>IBAs</td>
<td>Important Bird Areas</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>DIPA K/L</td>
<td>Daftar Isian Pelaksanaan Anggaran Kementerian/Lembaga/Line Ministries Budget Implementation List</td>
</tr>
<tr>
<td>SKPD</td>
<td>Satuan Kerja Perangkat Daerah/Local Government Work Unit/Department/Agency</td>
</tr>
<tr>
<td>DBH</td>
<td>Dana Bagi Hasil/Revenue Sharing Funds</td>
</tr>
<tr>
<td>DAU</td>
<td>Dana Alokasi Umum/General Allocation Funds</td>
</tr>
<tr>
<td>DAK</td>
<td>Dana Alokasi Khusus/Specific Allocation Funds</td>
</tr>
<tr>
<td>DID</td>
<td>Dana Insentif Daerah/Local Incentive Grants</td>
</tr>
<tr>
<td>DD</td>
<td>Dana Desa/Village Funds</td>
</tr>
<tr>
<td>APBN</td>
<td>Anggaran Penerimaan dan Belanja Negara/State Budget</td>
</tr>
<tr>
<td>PES</td>
<td>Payment for Ecosystems Services</td>
</tr>
<tr>
<td>EFT</td>
<td>Ecological Fiscal Transfer</td>
</tr>
<tr>
<td>Ziswaf</td>
<td>Zakat, Infaq, Sadaqah, and Waq</td>
</tr>
<tr>
<td>GPB</td>
<td>Green Planning and Budgeting</td>
</tr>
<tr>
<td>IDH</td>
<td>Inisiasi Dagang Hijau/Sustainable Trade Initiatives</td>
</tr>
<tr>
<td>TLFF</td>
<td>Tropical Landscape Finance Facility</td>
</tr>
<tr>
<td>RLU</td>
<td>PT. Royal Lestari Utama</td>
</tr>
<tr>
<td>HCS</td>
<td>High Carbon Stock</td>
</tr>
<tr>
<td>HCV</td>
<td>High Carbon Value</td>
</tr>
<tr>
<td>SGP</td>
<td>Small Grants Programme</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>MCAI</td>
<td>Millennium Challenge Account Indonesia</td>
</tr>
<tr>
<td>BAPPENAS</td>
<td>National Development Planning Agency</td>
</tr>
<tr>
<td>MCC</td>
<td>Millennium Challenge Compact</td>
</tr>
<tr>
<td>NTFPs</td>
<td>Non-Timber Forest Products</td>
</tr>
<tr>
<td>PKS</td>
<td>Perjanjian Kerja Sama/Cooperation Agreement</td>
</tr>
<tr>
<td>KOMPAKH</td>
<td>Komunitas Pariwisata Kapuas Hulu/Kapuas Hulu Tourism Community</td>
</tr>
<tr>
<td>CBO</td>
<td>Community-Based Organization</td>
</tr>
<tr>
<td>HoB</td>
<td>Heart of Borneo</td>
</tr>
<tr>
<td>CBT</td>
<td>Community-Based Tourism</td>
</tr>
<tr>
<td>PNBPs</td>
<td>Penerimaan Negara Bukan Pajak/Non-Tax Revenue</td>
</tr>
<tr>
<td>KPP</td>
<td>Kelompok Pengelola Pariwisata/Tourism Management</td>
</tr>
<tr>
<td>FIP</td>
<td>Forest Investment Programme</td>
</tr>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>READD+</td>
<td>Reducing Emissions From Deforestation and Forest Degradation</td>
</tr>
<tr>
<td>WRI</td>
<td>World Resources Institute</td>
</tr>
<tr>
<td>GGGI</td>
<td>Global Green Growth Institute</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>UNOPS</td>
<td>United Nations Office for Project Services</td>
</tr>
<tr>
<td>RFN</td>
<td>Rainforest Foundation Norway</td>
</tr>
<tr>
<td>DFID</td>
<td>UK Department for International Development</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
</tr>
<tr>
<td>STAP</td>
<td>Scientific and Technical Advisory Panel</td>
</tr>
<tr>
<td>CI</td>
<td>Conservation International</td>
</tr>
<tr>
<td>TNC</td>
<td>The Nature Conservancy</td>
</tr>
<tr>
<td>SLP</td>
<td>Sustainable Landscapes Partnership</td>
</tr>
<tr>
<td>TAPE</td>
<td>Transfer Anggaran Provinsi berbasis Ekologi/Ecology-Based Provincial Budget Transfers</td>
</tr>
</tbody>
</table>
Suggestions on Funding Mechanism
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLUD</td>
<td>Badan Layanan Umum Daerah/Local Public Service Agency</td>
</tr>
<tr>
<td>PBB</td>
<td>Pajak Bumi dan Bangunan/Land and Building Tax</td>
</tr>
<tr>
<td>PAD</td>
<td>Pendapatan Asli Daerah/Local Revenue</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>GCF</td>
<td>Green Climate Fund</td>
</tr>
<tr>
<td>CIFOR</td>
<td>Center for International Forestry Research</td>
</tr>
<tr>
<td>EFF</td>
<td>Esmee Fairbairn Foundation</td>
</tr>
<tr>
<td>GBP</td>
<td>British Pound sterling</td>
</tr>
<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit</td>
</tr>
<tr>
<td>NABU</td>
<td>Naval Advanced Base Unit</td>
</tr>
<tr>
<td>PT</td>
<td>Perseroan Terbatas/Limited Company</td>
</tr>
<tr>
<td>CV</td>
<td>Commanditaire Vennootschap/Limited Partnership</td>
</tr>
<tr>
<td>UD</td>
<td>Usaha Dagang/Trading Business</td>
</tr>
<tr>
<td>NPWP</td>
<td>Nomor Pokok Wajib Pajak/Tax Registration Number</td>
</tr>
<tr>
<td>SPPT</td>
<td>Surat Pemberitahuan Pajak Terutang/Notification of Tax Due</td>
</tr>
<tr>
<td>RT</td>
<td>Rukun Tetangga/Neighborhood Association</td>
</tr>
<tr>
<td>RW</td>
<td>Rukun Warga/Community Association</td>
</tr>
<tr>
<td>NPH</td>
<td>Naskah Perjanjian Hibah/Grant Agreement</td>
</tr>
<tr>
<td>SAPP</td>
<td>Sistem Akuntansi Pemerintah Pusat/Accounting System for Central Government</td>
</tr>
</tbody>
</table>
# Table of Content

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>A</td>
</tr>
<tr>
<td>List of Abbreviations</td>
<td>C</td>
</tr>
<tr>
<td><strong>CHAPTER 1 INTRODUCTION</strong></td>
<td>4</td>
</tr>
<tr>
<td>1.1 Biosphere Reserves in Indonesia</td>
<td>6</td>
</tr>
<tr>
<td>1.2 Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve</td>
<td>10</td>
</tr>
<tr>
<td>1.3 Objective of the Study</td>
<td>15</td>
</tr>
<tr>
<td><strong>CHAPTER 2 SOURCES/MECHANISMS OF FUNDING FOR BIOSPHERE RESERVES</strong></td>
<td>16</td>
</tr>
<tr>
<td>2.1 Funding Mechanisms Available Globally</td>
<td>18</td>
</tr>
<tr>
<td>2.2 Funding Mechanisms for Biosphere Reserves and Conservation or other Environmental Issues in Indonesia</td>
<td>25</td>
</tr>
<tr>
<td><strong>CHAPTER 3 PROPOSED MECHANISMS FOR BETUNG KERIHUN DANAU SENTARUM KAPUAS HULU BIOSPHERE RESERVE</strong></td>
<td>51</td>
</tr>
<tr>
<td>3.1 Institutional Framework Options</td>
<td>54</td>
</tr>
<tr>
<td>3.2 Proposed Funding Mechanism</td>
<td>65</td>
</tr>
<tr>
<td><strong>CHAPTER 4 CONCLUSION AND RECOMMENDATIONS</strong></td>
<td>72</td>
</tr>
<tr>
<td>4.1 Conclusion</td>
<td>74</td>
</tr>
<tr>
<td>4.2 Recommendations</td>
<td>75</td>
</tr>
<tr>
<td><strong>REFERENCES</strong></td>
<td>74</td>
</tr>
<tr>
<td><strong>ANNEXES</strong></td>
<td>83</td>
</tr>
<tr>
<td>A. Intergovernmental Fiscal Transfers</td>
<td>82</td>
</tr>
<tr>
<td>B. What You Need To Know About Impact Investment</td>
<td>85</td>
</tr>
<tr>
<td>C. Cooperating with the Private Sector Locally, Nationally, and Internationally – Opportunities and Limitations</td>
<td>88</td>
</tr>
<tr>
<td>D. How to Set Up Foundations in Indonesia</td>
<td>89</td>
</tr>
<tr>
<td>E. The Indonesia Climate Change Trust Fund</td>
<td>90</td>
</tr>
</tbody>
</table>
List of figures
Figure 1  Biosphere reserve zoning area 7
Figure 2  Zoning of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve 12
Figure 3  Stakeholder mapping in Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve 13
Figure 4  Typology of protected areas financing mechanisms 18
Figure 5  Financing solutions for biodiversity 26
Figure 6  Project map of GEF SGP 30
Figure 7  MCA-Indonesia organizational structure 31
Figure 8  Indonesia at a glance 35
Figure 9  GEF governing structure 36
Figure 10  Underlying logic for EFT 39
Figure 11  An example of how PES workes in watersheds 43
Figure 12  Proposed organizational structure of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve 54
Figure 13  Foundations as the receiving fund institution and administrator 62
Figure 14  BPDLH as the trustee and fund manager 64
Figure 15  Environmental fund management agency (BPDLH) 64
Figure 16  Proposed funding mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve 67
Figure 17  ICCTF organizational structure 90
Figure 18  ICCTF fund flow management 92

List of Tables
Table 1 List of biosphere reserves in Indonesia 5
Table 2 Funding mechanisms available globally that encourage private sector engagement 20
Table 3 Government expenditure by function 27
Table 4 Norwegian Embassy projects in Indonesia 44
Table 5 Changes of the foundation regulations 62
Table 6 Proposed mechanisms for short-term activities 69
Table 7 Proposed mechanisms for long-term activities 70

List of Boxes
BOX 1 Corporate sustainability bond 29
BOX 2 Mechanism through Local NGO 33
BOX 3 Almost a carbon trading project 46
BOX 4 How to collaborate 52
BOX 5 Blue Abadi Trust Fund 56
CHAPTER 1

Introduction
1.1 Biosphere Reserves in Indonesia

The concept of Biosphere Reserves was launched in 1970s as a part of UNESCO’s Man and Biosphere (MAB) Programme, aim to harmonise biodiversity conservation and sustainable development. They are established to promote and demonstrate a balanced relationship between humans and the biosphere. Biosphere reserves are areas comprising terrestrial, marine and coastal ecosystems. Each reserve promotes solutions reconciling the conservation of biodiversity with its sustainable use. Biosphere reserves are – special places for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity.

A biosphere reserve combines three interconnected functions:

Conservation function
to contribute to the conservation of landscapes, ecosystems, species and genetic variation

Development function
to foster economic and human development which is socio-culturally and ecologically sustainable

Logistic function
To provide support for research, monitoring, education and information exchange related to local, national and global issues of conservation and development.

Therefore, the biosphere reserve consists of three interrelated zones: core area, buffer zone, and transition area (FIGURE 1).

The core area comprises a legally protected ecosystem that contributes to the conservation of landscapes, ecosystems, species, and genetic variation. The buffer zone surrounds the core area and is managed to accommodate activities compatible with sound ecological practices that can reinforce scientific research, monitoring, training and education. It is intended to safeguard the core area from the negative impact of human activities1. Then the transition area is the outermost part of the Biosphere Reserve, where the greatest activity is allowed, fostering economic and human development that is socio-culturally and ecologically sustainable. The transition zone is basically an area of active cooperation between reserve management and the local people, wherein activities including settlements, cropping, forestry, recreation and other economic uses continue in harmony with people and conservation goals.

Do all biosphere reserves have to have three zones? No, the zone plan is a theoretical concept. The most important is to choose approaches that work. Countries are inspired by UNESCO to develop innovative, cooperative strategies to achieve the biosphere reserve's purposes, and produce better criteria, according to the special conditions in each nation. Cooperative conservation strategies and mechanisms have to be developed. The key idea is not to sanction those people who do not wish to take part in biosphere reserve activities, but to encourage the people who do.

Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Their status is internationally recognized. There are 701 biosphere


Suggestions on Funding Mechanism

As a member of UNESCO, Indonesia participated in implementing the MAB program. Government of Indonesia (GoI) appointed LIPI as the focal point of the MAB program in Indonesia. LIPI formed MAB-UNESCO Indonesia National Committee as mandated to implement the MAP program in Indonesia, in accordance with the needs and existing condition in Indonesia. In Indonesia, the establishment and development of biosphere reserves involves not only LIPI, but also in coordination with Ministry of Environment and Forestry (KLHK) and the local government. KLHK has the authority over the conservation area which is the Core Zone, while the local government is mainly responsible for the implementation of the development plan at local and national levels, especially in the Buffer Zone and the Transition Zone of the biosphere reserve.
To date, there are sixteen biosphere reserves in Indonesia that are part of World Network of Biosphere Reserves (Table 1) with SAMOTA Biosphere Reserve the youngest biosphere reserve designated by MAB UNESCO.

**TABLE 1 List of biosphere reserves in Indonesia**

<table>
<thead>
<tr>
<th>Name of Biosphere Reserve</th>
<th>Province(s)</th>
<th>Year Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cibodas Biosphere</td>
<td>West Java</td>
<td>1977</td>
</tr>
<tr>
<td>2. Komodo Biosphere</td>
<td>East Nusa Tenggara</td>
<td>1977</td>
</tr>
<tr>
<td>3. Cagar Biosfer Tanjung Puting</td>
<td>Central Kalimantan</td>
<td>1977</td>
</tr>
<tr>
<td>4. Lore Lindu Biosphere Reserve</td>
<td>Central Sulawesi</td>
<td>1977</td>
</tr>
<tr>
<td>5. Siberut Biosphere Reserve</td>
<td>West Sumatera</td>
<td>1981</td>
</tr>
<tr>
<td>7. Giam Siak Kecil - Bukit Batu Biosphere Reserve</td>
<td>Riau</td>
<td>2009</td>
</tr>
<tr>
<td>8. Wakatobi Biosphere Reserve</td>
<td>Southeast Sulawesi</td>
<td>2012</td>
</tr>
<tr>
<td>12. Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve</td>
<td>West Kalimantan</td>
<td>2018</td>
</tr>
<tr>
<td>13. Berbak-Sembilang Biosphere Reserve</td>
<td>South Sumatera</td>
<td>2018</td>
</tr>
<tr>
<td>14. Rinjani-Lombok Biosphere Reserve</td>
<td>West Nusa Tenggara</td>
<td>2018</td>
</tr>
<tr>
<td>15. Togean Tojo Una-Una Biosphere Reserve</td>
<td>Central Sulawesi</td>
<td>2019</td>
</tr>
<tr>
<td>16. Saleh-Moyo-Tambora “SAMOTA” Biosphere Reserve</td>
<td>West Nusa Tenggara</td>
<td>2019</td>
</tr>
</tbody>
</table>

Source: MAB UNESCO

---

6. According to interview result with MAB Indonesia National Committee, Biosphere Reserves in Indonesia that have no coordinating forum yet are Siberut BR, Gunung Leuser BR, Tanjung Puting BR, and Betung Kerihun Danau Sentarum Kapuas Hulu BR.
The Law Number 5 Year 1990 is the legal basis for the existence of biosphere reserves in Indonesia. The terms and definitions of biosphere reserves are found in article 1 (12) which reads:

“Biosphere reserves are areas which consist of native ecosystems, unique ecosystems, and/or ecosystems that have experienced degradation of all natural elements, protected and preserved for the benefit of research and education”.

Furthermore, the Law 5/1990 also mandates that the designation of biosphere reserves in a certain area should be regulated further in Government Regulations (Peraturan Pemerintah/PP) and Local Government Regulations (Peraturan Daerah/Perda). The drafting process of the Government Regulation is still underway and hopefully it can be finalized and issued in 2020. The Government Regulation can later be used as a budgeting reference for the Central and Regional Governments. Now, this is still voluntary without a clear legal basis.

The derivative regulations should contain the management plan or action plan, and also an institutional arrangement for the biosphere reserve management. The institutional arrangement for managing biosphere reserves in Indonesia consists of two forms, either through establishing a Biosphere Reserve Management Board (presently only in Siak Giam-Bukit Batu Biosphere Reserve) or through establishing a Biosphere Reserve Coordination Forum that should involve all the key stakeholders in the biosphere reserve.

Presently, the Indonesia MAB National Committee adopted the Lima Action Plan 2016-2025 into their New Strategy 2015-2025 followed by the implementation in the biosphere reserve management. There are five strategic areas when implementing the Lima Action Plan (LAP) in order to achieve the National Sustainable Development Agenda 2020, including:

1. Biosphere Reserve as an effective model of sustainable development,
2. Inclusive network and collaboration, dynamic, and results oriented program,
3. Effective external partnerships, sufficient and sustainable funding for the MAB Programme and World Network of Biosphere Reserve,
4. Comprehensive, modern, open, and transparent communication including in terms of sharing information and data,
5. Effective management plan and program.

7 This New Strategy is a continuation of Madrid Action Plan 2008-2013. It is stated in the 28th ICC Forum in Lima-Peru.
1.2 Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve

Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve was designated by UNESCO in July 2018. Kapuas Hulu District, as it’s known, was designated a Conservation District in 2003 and has approximately 65% of the area under forest cover, including conservation forest, protected and production forest. Located in the eastern tip of West Kalimantan Province, it is geographically located at 0.5° North Latitude to 1.4° South latitude and 111.4° to 114.1° East Longitude. Putussibau is the capital city.

The landscape of Betung Kerihun Danau Sentarum Kapuas Hulu BR has important and strategic values in order to conserve the ecosystem in this area, especially with the Betung Kerihun National Park and Danau Sentarum National Park as core zone. Otherwise, the buffer zone from this area also covering several protected areas and nature reserves with the main roles to conserve the ecosystem and biodiversity in this area. They also play an important role in providing water for all of West Kalimantan as the watershed for the Kapuas river.

Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve covers in total 3,115,200 ha area, comprising of the Core Zone for about 944,000 ha, the Buffer Zone for about 920,000ha, and the rest (1,251,200 ha) being the Transition Zone. The core area consists of two national parks: Betung Kerihun National Park and Danau Sentarum National Park and has a very high ecosystem diversity. The forest vegetation is relatively intact and still in a good condition and provides habitat for several endemic flora and fauna species. The Betung Kerihun National Park has been classified into 8 distinct ecosystem types: Alluvial Forest, Lowland Dipterocarp Forest, Hill Dipterocarp Forest, Sub-Montane Forest, Montane Forest, Limestone Forest, Swamp Forest, and Old Secondary Forest. While the Danau Sentarum National Park is mostly a lake and wetland area, with a vegetation consisting of various species of plants and shrubs that have the ability to adapt in an area that is almost always flooded throughout the year. This area is surrounded by hills and highlands that make this area a catchment area. It has a hydrological function that is very important for the maintenance of Kapuas watershed (DAS).

The buffer zone and transition area have a potential to be used as a productive area including agriculture, plantation, horticulture, fishery, animal husbandry, as well as other productive activities such as tourism, industry, and others. The development of the buffer zone and transition areas plays a very important role to foster sustainable economic and human development that is socio-culturally and ecologically sustainable within the biosphere reserve.

Betung Kerihun Danau Sentarum Kapuas Hulu BR Nomination Document.
Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve covers an area of 3,115,200 ha, comprising of the Core Zone for about 944,000 ha, the Buffer Zone for about 920,000 ha, and the rest (1,251,200 ha) being the Transition Zone.
ECOSYSTEM SERVICES POTENCY IN THE BUFFER ZONE AND TRANSITION ZONE

The buffer zone consists of protected forest, production forest, agricultural area and human settlement

Agricultural development includes food crops, plantations, livestock, fisheries and forestry\textsuperscript{12}. The whole Kapuas Hulu regency has a wide area with the potential to be developed for agriculture but until 2017, the land area used for rice fields is only 36,000 ha, equivalent to 1.2 percent of total area of Kapuas Hulu regency (BPS Kapuas Hulu, 2018). Development of food crops continually need to be improved to achieve regional food self-sufficiency, increase incomes and improve nutrition. The region also has developed a variety of plantation commodities such as rubber, coconut, coffee, pepper, cocoa (cacao), cotton, sugarcane, palm oil, kratom, arecanut and jarak. Not all plantation commodities are in all sub-districts. Only the rubber plantations, coconut and pepper are scattered throughout the district. Unfortunately, the National Narcotics Agency (BNN) Indonesia has issued a ban to no longer use kratom in 2022 since kratom leaves are said to cause symptoms of addiction, respiratory depression, and even death\textsuperscript{13}.

The livestock sub sector aims at increasing farm incomes, improving the diet and broaden the field of business and employment opportunities. It is known that the larger animal livestock population in Kapuas Hulu was 7,700 cows in 2017 and small animal livestock consists of 1,700 sheep and 24,000 pigs (BPS Kapuas Hulu, 2018).

The fisheries sub-sector aims at the expansion of fish culture in ponds, pagong, and cages as well as support fishing facilities for rivers and lakes to meet the nutritional needs of the community, increase local production and support the needs for industrial raw materials, and increase household incomes of fishermen. Fishing in Kapuas Hulu is mostly done using traditional fishing gear. In 2017, the quantity of fish produced was 31,500 tons (BPS Kapuas Hulu, 2018).

Dayak Communities are the majority of the Local Communities in Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Area

The indigenous people of this region consist of Melayu and Dayak communities. As the majority, Dayak ethnic groups include Dayak Iban, Tamambaloh, Taman Sibau, Kantu, Kayan Mendalam, Deeper Bukit, Bukei Metelunai, and Punan Hovongan. Only Punan Hovongan groups reside within the Betung Kerihun National Park and they are one of the Dayak groups representing four typologies of Dayak groups throughout Kalimantan or Borneo.

In some watersheds (Embaloh and Sibau) the existence of indigenous people’s institutions and their instruments in the form of adat law are well established. The existence of village regulations, especially in the field of management of ecotourism services that have been prepared in some watersheds. Although currently it is not significant in supporting and catalyzing various programs, especially community empowerment, but it becomes valuable social capital for the management Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve in the future.

\textsuperscript{12} Gie (2002) menjelaskan bahwa sektor pertanian secara luas mencakup sektor kehutanan, kelautan, dan perikanan.

\textsuperscript{13} Kratom (Mitragyna Speciosa) digunakan oleh masyarakat setempat sebagai obat herbal untuk mengatasi rasa sakit, depresi, dan kecemasan. Secara tradisional, daun kratom umumnya dikunyah, diseduh menjadi teh, atau digunakan untuk memasak.
In terms of community structure and livelihood features, there are four typologies of Dayak groups throughout Kalimantan or Borneo (Indonesian MAB Programme, 2017):

- **Cultural background groups** hunting and collecting non-timber forest products, bound in small groups (bands) with leadership structures based on seniority and skills. For example: Orang Bukat and Punan.

- **The group of cultural background shifting cultivation of dry land and hills**, tied with long houses and egalitarian and democratic leadership structures. For example: Iban People.

- **Group of shifting cultivation of wetland and wetland agriculture**, tied to longhouse and familiar with strict social coating (caste) system. For example: Orang Kayan, Kenyah, etc.

- **The shifting cultivation of wetland and wetland farming groups**, tied to longhouses, has mixed features between egalitarian and social coating systems, and recognizes the second burial tradition through the burning of ancestral bones. For example: Orang Ot Danum, etc.

**Key Stakeholders Identification**

Management of a biosphere reserve in Indonesia, should basically implement the integrated management program from top to down, the programs should also be economically feasible, environmentally viable, socially acceptable, and technologically appropriate. The development should also prioritize local community strengthening and ensure that all the stakeholders engaged get the benefit from sustainable development activities. Therefore, identifying all the relevant stakeholders involved in activities in the biosphere reserve is mandatory.

Source: Pradana, 2019
Commitment, coordination, and role-sharing between the stakeholders are necessary to perform all the functions of Betung Kerihun Danau Sentarum Kapuas Hulu as a biosphere reserve. Conservation management in the core zone must ensure a sustainable management, beneficial for the surrounding area. Local government together with communities have the responsibility to develop the buffer zone and transition area. Support from private sector is also important for development in the buffer and transition area.

Based on the identified stakeholders, the following issues need to be highlighted:

**Coordination among Stakeholders**
Though the nomination dossier stated the proposed management board of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve, its Coordination Board/Forum has not been established yet. It is necessary to have a structure or composition of the coordination board member and identification who will be included in that structure.

**Legal Aspects**
There is no clear regulation at the national level except the Law 5/1990. Such regulation is vital for biosphere reserve management. As long as that regulation does not exist, government institutions cannot allocate resources for activities concerning the biosphere reserves.

A lower level of regulation, i.e., Head of District Decree(s), is also required, e.g., for the institutional arrangement (Coordination Forum of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve), management plan, action plan, etc. Again, such provision(s) is not available yet.

**The Biosphere Reserve Concept**
The Biosphere Reserve concept has not been socialized widely, so there are still many stakeholders who do not fully understand the concept of biosphere reserves. Being acknowledged as a biosphere reserve does not necessarily mean that more funding will be directly provided.

**Non-State Actor (NSA) Engagement**
NSA engagement to support sustainable supply chains and stronger working relationship with private sector within forestry and agriculture and low emission development is crucial. Thus, sustainable development of the economic sectors such as agriculture becomes urgent in order to boost the economy and empower the local communities.

One of the current problems faced by conservation areas and agencies is the less willingness of the Governments and Donors to earmark funds targeted at standard protected areas management goals and institutions. Fortunately, the new funding of large international NGOs is filling the gap. Conservation area managers are expected to be more and more creative in conceptualizing, justifying, and managing funds for biodiversity. Funding needs are more competitive nowadays. Thus, the use of business-like financial tools to strengthen sustainable financing mechanisms are necessitated (Emerton, Lucy & Bishop, Joshua & Thomas, Lee, 2006).

---

14 Interview with MAB National Committee Indonesia
1.3 Objective of the Study

As mentioned above, it is necessary to optimize and strengthen the participation of stakeholders: local government, central government, local communities, private sector, universities/research institutions, NGOs, and others towards the integrated management plan for sustainable development of biosphere reserves.

This report is based on a review of available literature, in-depth interviews, and secondary data collection. The structure of the report is as follows:

This study aims to:

1. Develop a concept for a funding mechanism for Kapuas Hulu Biosphere Reserve that encourages private sector engagement to enable the development and implementation of activities supportive of and in line with Biosphere Reserve requirements and sustainable development, particularly by local communities;

2. List all requirements for attaining such purpose.
Suggestions on Funding Mechanism
CHAPTER 2

Sources/Mechanisms of Funding for Biosphere Reserves
2.1 Funding Mechanisms Available Globally

In recent decades a lot of innovative protected areas and biodiversity financing mechanisms have been developed globally. Different institutions (Emerton et al. (2006), Norris, Ruth & Curtis, Randy (1999), and WWF (2009), have published several categories as follows.

The first category is according to the way in which financing is raised and used as shown in Figure 4:

- **Financing mechanisms which are concerned with attracting and administering external flows including government and donor budgets, NGO grants, and private and voluntary donations, from both international and domestic sources.**

- **Cost-sharing and benefit-sharing, investment and enterprise funds, fiscal instruments and arrangements for private or community management of PA land, resources and facilities are primarily mechanisms for generating funding to encourage conservation activities among the groups who use or impact on PAs.**

- **Resource-use fees, tourism charges and payments for ecosystem services all make market-based charges for PA goods and services to capture some of the willingness-to-pay of PA beneficiaries.** (Emerton et al., 2006, p. 28)

![FIGURE 4 Typology of protected areas financing mechanisms](source: Emerton et al., 2006)
Norris & Curtis (1999) classify financing mechanisms as follows:

1. **Current Cross-Cutting Themes in Biodiversity Finance**
   - Finance from Public-Private Partnerships,
   - Community Participation,
   - Economic Valuation of Protected Areas and Biodiversity (Ecotourism),
   - Conservation Trust Funds, and Volunteers.


3. **Fundraising from International Donors like Multilateral Donors, the Global Environment Facility, the Inter-American Development Bank, the Organization of American States: Other Treaty and Technical Organizations, Bilateral Donors, International NGOs, Philanthropic Foundations, Corporations and Individuals, Corporate Fundraising, Gifts from Individuals, and Memberships.**

WWF (2009) also provides a guide to conservation finance with the following details:

1. **Carbon finance:** carbon markets, carbon finance projects, carbon investment funds, and carbon tax.
2. **Payments for watershed services**
3. **Revenue from tourism and recreation:** protected area entry fees, recreation license fees and special access payments, hunting fees and green safaris, tourism operations in protected areas, transportation and hotel taxes, and voluntary contributions from tourists and tourism operators.
4. **Compensation payments:** voluntary and mandated compensation payments, mitigation banking and biodiversity offsets, bioprospecting, royalties from resource extraction, and fines for environmental damage.
5. **Fishing industry revenues:** catch shares, fish levies, revenue from aquaculture, and fines for illegal fishing.
6. **Real estate and economic activity:** conservation concessions and fees from real estate development.
7. **Revenue from the sale and trade of wildlife:** CITES, lacey act (US), wildlife auctions, in situ-ex situ species conservation partnerships.
8. **Sustainable capital and environmental investment funds:** environmental investment funds, forest or eco securitization, favourable credit tied to sustainable practice standards, and microfinance for sustainable and community-based conservation.
9. **Allocations from government revenues:** debt relief, bonds for conservation, lottery revenues, vehicle license plates, and wildlife stamps.
10. **Conservation trust funds.**
From those literature reviews, the followings are examples of each mechanism around the world:

### TABLE 2 Funding mechanisms available globally that encourage private sector engagement

<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Example</th>
</tr>
</thead>
</table>
| **Government Appropriations or State Budget**   | **Country:** Guatemala\(^ {\text{15}} \)  
**Total Biodiversity Expenditure:** USD 331,160,000 (0.14% of GDP)  
**Period:** 2010 – 2014  
**Source:** USD 221 million (public) and USD 110.1 million (private sector, international cooperation, and NGOs) |
| **Private (Corporations and Individuals) Voluntary Donations** | **Source:** Ford Foundation\(^ {\text{16}} \)  
**Grantee:** Center for International Forestry Research  
**Year:** 2019  
**Amount:** USD 50,000  
**Country:** United States  
**Program:** Natural Resources and Climate Change  
**Summary:** For indigenous and local community participation in the 2019 Global Landscapes Forum to examine how rights, traditional knowledge and locally proposed solutions are respected, considered and implemented in policy, action and investment cycles globally |
| **Donor (Multilateral, Bilateral)**             | **Source:** Global Environment Facility (GEF) Trust Fund\(^ {\text{17}} \)  
**Executing Agencies:** Bhutan Trust Fund for Environmental Conservation (BTFGEC); Ministry of Agriculture and Forests (including Departments of Forestry, Livestock and Agriculture); World Wide Fund for Nature (WWF); Local Communities  
**Year:** 2012  
**Amount:** USD 16,538,000  
**Country:** Bhutan  
**Program:** Land degradation, biodiversity  
**Summary:** To improve the operational effectiveness and institutional sustainability of the Bhutan Trust Fund for Environment Conservation (BTFEC) |
| **NGO Grants**                                  | **Source:** Conservation International\(^ {\text{18}} \)  
**Year:** since 2009  
**Amount:** USD 30,000,000  
**Country:** 20 countries  
**Program:** Carbon Fund - Reducing emissions by conserving forests  
**Summary:** Help combat climate change by reducing deforestation and conserving critical ecosystem services — the services we need to grow and prosper as a society |

---

\(^ {\text{15}} \) BIOFIN Workbook, 2018
\(^ {\text{16}} \) [https://www.fordfoundation.org/work/our-grants/grants-database/grants-all?thematicareas-%26ThematicAreaIds%3D20&pag e-0&subjects-%26SubjectIds%3D9](https://www.fordfoundation.org/work/our-grants/grants-database/grants-all?thematicareas-%26ThematicAreaIds%3D20&pag e-0&subjects-%26SubjectIds%3D9)
\(^ {\text{17}} \) [https://www.thegef.org/project/sustainable-financing-biodiversity-conservation-and-natural-resources-management](https://www.thegef.org/project/sustainable-financing-biodiversity-conservation-and-natural-resources-management)
\(^ {\text{18}} \) [https://www.conservation.org/about/carbon-fund](https://www.conservation.org/about/carbon-fund)
<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Example</th>
</tr>
</thead>
</table>
| Debt-for-Nature Swaps            | **Source:** USAID TFCA Program[^19]  
**Executing Agencies:** Fundo Brasileiro Para A Biodiversidade (FUNBIO)  
**Year:** 2010 - 2015  
**Amount:** USD 21,000,000  
**Country:** Brazil  
**Program:** Protection of country’s tropical forests  
**Summary:** To conserve protected areas, improve natural resource management, and develop sustainable livelihoods for communities in areas such as the Atlantic Rainforest (Mata Atlantica) as well as the Caatinga and the Cerrado Biomes |
| Environmental (Conservation) Trust Funds | **Source:** Thailand Ministry of Finance and Oil Fund[^20]  
**Executing Agencies:** Thailand Environmental Fund  
**Year:** 1992  
**Fund Disbursed:** USD 240,000,000  
**Country:** Thailand  
**Summary:** To acquire and channel financial sources from the Government, international organizations and other funding sources for the protection and improvement of the environment |
| EFT pada Instrumen Fiskal         | **Source:** Government of India State Budget[^21]  
**Beneficiaries:** Local Governments  
**Year:** 2018  
**Amount:** IDR 90 trillion, and expected to receive IDR 160 trillion in 2020 based on their forest cover  
**Country:** India  
**Summary:** Forest cover represents 7.5% of the overall weight |
| Revenue (Benefit) Sharing        | **Country:** Tanzania  
**Location:** Serengeti National Park  
**Executing Agencies:** Tanzania National Parks Authority (TANAPA), Wildlife Department, Serengeti and Bunda District Councils  
**Year:** since 1993  
**Amount:** USD 11,000 for ten villages in Bunda and Serengeti Districts  
**Program:** Serengeti Regional Conservation Strategy Project  
**Summary:** The Wildlife Department revenue sharing with local villages by selling game meat at below-market prices to ensure an affordable source of protein for local households and lower the probability of illegal hunting |

[^22]: Emerton et al., 2006
<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Example</th>
</tr>
</thead>
</table>
| **Investment, Credit, and Enterprise Funds**             | **Source:** GEF Trust Fund[^23]  
**Country:** Philippines  
**Year:** 2002  
**Amount:** USD 16,900,000  
**Beneficiary:** Asian Conservation Company (ACC)  
**Program:** Conserve new and existing MPAs at 6 sites  
**Summary:** Private investors are willing to take lower returns on their investment on ACC in exchange for funding biodiversity conservation |
| **Leases and concessions for private/community management of land, resources, and facilities** | **Authority:** New Zealand Department of Conservation (DOC)  
**Location:** More than 3,500 concessions on public conservation land[^24]  
**Method:** Uses a formula that represents a revenue-sharing scheme based on the proportion of investment contributed by the leasing business (investing capital) and the DOC (investing land) such as a percentage of gross income; an amount per hectare, head or trip; a fixed payment; or a combination of the three.  
**Summary:** Contracts with private companies are issued for commercial activities such as aircraft, beehive placement, minor easement, commercial easement, grazing, guiding, guiding tours – cycling, extraction, parking for commercial operators, retail activities, sporting events, and telecommunication facilities[^25] |
| **Revenue from Tourism and Recreation**                 | 1) **Visitor Entrance Fees**  
**Country:** Ecuador  
**Location:** Galapagos National Park[^26]:  
- Foreign tourist (non-resident) = USD 100  
- Foreign tourist under 12 years = USD 50  
- Foreign tourist of a member country of the Andean Community or Mercosur = USD 50  
- Foreign tourist of a member country of the Andean Community or Mercosur under 12 years = USD 25  
- Citizen or resident of Ecuador = USD 6  
- Citizen or resident of Ecuador under 12 years = USD 3  
- Foreign tourist non-resident attending a national academic institution = USD 25  
- National or foreign children under 2 years = NO fee  
2) **Special Access Payment – Gorilla Visit Fees**  
**Location:** Parc National des Volcans  
**Country:** Rwanda  
Fees for a one-to-four hours gorilla viewing trek:  
- Non-Nationals = USD 500  
- Foreign Nonresidents = USD 250  
- Rwanda citizens = USD 36 |

[^23]: https://www.thegef.org/project/asian-conservation-company-acc  
[^24]: WWF, 2009  
<table>
<thead>
<tr>
<th>Mechanisms</th>
<th>Example</th>
</tr>
</thead>
</table>
| **Resources Use Fees**           | **Negara:** Turki<sup>27</sup>  
**Lokasi:** Sultan Sazligi Nature Reserve  
**Program:** Menetapkan batasan untuk volume alang-alang yang diperbolehkan  
**Biaya:** USD 5 per orang dari masyarakat setempat  
**Pendapatan:** USD 2.000 per tahun ditransfer ke pemerintah pusat                                                                                             |
| **Bioprospecting**               | **Negara:** Kosta Rika<sup>28</sup>  
**Lembaga utama:** The National Biodiversity Institute (INBio)  
**Mitra:**  
- Merck, Diversa, Givouan-Roure (wewangan untuk digunakan dalam industri kosmetik), Recombinant Bio-Catalysis (mikroorganisme yang hidup dalam kondisi yang berat), Bristol-Myers Squib (serangga sebagai input untuk pembuatan obat)  
- Analyticum dan INDENA (produkt dermatologi)                                                                                                               |
| **Payments for Ecosystem Services** | **Source:** WWF, Swiss Re Insurance company, Critical Ecosystems Partnership Fund, Austrian Development Agency (ADA), USAID, DANIDA, and CARE<sup>29</sup>  
**Beneficiaries:** Sierra de las Minas Biosphere Reserve Water Fund  
**Year:** started in 2002 but became operational in 2008  
**Amount:** USD 256,000  
**Country:** Guatemala  
**Program:** Equitable Payment for Watershed Services (PWS) Project (WWF/CARE)  
**Summary:** Promotes activities upstream that are expected to increase recharge and decrease erosion and support major users (industry) to increase their water use efficiency and reduce the impacts of their effluents |
| **Carbon Finance**               | **Source:** Government of Nepal’s Alternative Energy Promotion Center (AEPC), Biogas Sector Partnership (BSP) Nepal, and WWF Nepal<sup>30</sup>  
**Beneficiaries:** Districts of Nepal’s Terai Arc Landscape  
**Year:** 2007-2011 (with overall life cycle of 21 years)  
**Amount:** brings in EUR 2.3 million channelled back to communities  
**Country:** Nepal  
**Program:** Nepal’s Gold Standard Biogas VER Project  
**Summary:** To install 7,500 (in Phase 1) and 20,000 biogas methane generators (in Phase 2) to protect forest habitat from being used as fuelwood, partly to deliver inexpensive and reliable energy to extremely poor communities |

---

<sup>27</sup> Emerton et al., 2006  
<sup>28</sup> [https://watershedmarkets.org/casestudies/Guatemala_Sierra_Minas.html](https://watershedmarkets.org/casestudies/Guatemala_Sierra_Minas.html)  
<sup>30</sup> [https://wwfnepal.exposure.co/insidethemalayas1](https://wwfnepal.exposure.co/insidethemalayas1)
<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Example</th>
</tr>
</thead>
</table>
| Corporate Social Responsibility Spending | Company: RICOH Canada\(^{31}\)  
Country: Canada  
Program:  
- Ricoh Global Eco Action Day (2005) for the World Environment Day (UNEP)  
- Tree Planting Events (2009) in Calgary and Mississauga  
- United Way Day of Caring at Peace Ranch in Caledon, Ontario (2010)  
- The Great Canadian Shoreline Clean-up (2015)  
- National Green Team Program (2015)  
- Earth Week support program |
| Conservation Bonds        | Name: Rhino Bonds\(^{32}\)  
Company: Conservation Capital  
Country: Kenya and South Africa  
Amount: USD 50,000,000  
Period: 5 years  
Summary: the first financial instrument dedicated to protecting a species (African rhino) |
| Public-Private Partnerships | Country: Brazil\(^{33}\)  
Partners: Peugeot and the French National Forestry Service (ONF)  
Period: 1998 - 2038  
Location: Cotriguaçu municipality, Northwest of Mato Grosso State  
Project: Peugeot-ONF Forest Carbon Sink Project in Fazenda São Nicolau  
Summary: The main objective is to reforest 2,000 hectares of pasture and monitor the associated carbon sequestration until 2038 |
| Partisipasi masyarakat    | Organization: BirdLife International\(^{34}\)  
Program: Biodiversity Conservation and Local Communities  
Projects:  
- Community Management of Non-Timber Forest Resources as a Conservation Strategy for La Sepultura and El Triunfo Important Bird Areas (IBAs), Chiapas, Mexico  
- Partnership with Communities and Involvement Fostering active participation in conservation. Belize Audubon Society, Belize  
- Conservation through research, monitoring, awareness and sustainable alternatives in the Jaragua National Park by the Jaragua Community Volunteers, Dominican Republic  
- Strengthening Local Conservation Groups at Cienega Las Macanas, Sociedad Audubon Panama, Panamá  
Summary: To ensure the sustainable provision of environmental goods and services while at the same time conserving the rich biodiversity for which IBAs were identified |

\(^{32}\) [https://www.ft.com/content/2f8bf9e6-a790-11e9-984c-fac8325aaa04](https://www.ft.com/content/2f8bf9e6-a790-11e9-984c-fac8325aaa04)  
\(^{34}\) [https://www.birdlife.org/sites/default/files/attachments/Biodiversity-conservation-local-communities.pdf](https://www.birdlife.org/sites/default/files/attachments/Biodiversity-conservation-local-communities.pdf)
2.2 Funding Mechanisms for Biosphere Reserves and Conservation or other Environmental Issues in Indonesia

Funding activities in Indonesia related to biosphere reserve management can be divided according to the three zones:

1. **DIPA K/L (State Budget) for the Core Zone (National Parks)**
   - Central government ministry/agency budget implementation list (a key document in State Budget processes). Each ministry/agency produces such a DIPA each year, detailing implementation of its budget.\(^{37}\)

2. **Local Government Budget (Provincial or District), Private Sector, and Local Community for Buffer and Transition Zones**
   - Local government departments/agencies budget implementation document (equivalent to DIPA K/L at national level). Each SKPD (local government work unit/department/agency) produces such a document each fiscal year, detailing income, expenditure, and financing.
   - Types of mechanisms (intergovernmental fiscal transfers) include Revenue Sharing Funds (DBH), General Allocation Funds (DAU), Specific Allocation Funds (DAK), Local Incentive Grants (DID), and Village Funds (DD).


---

\(^{35}\) [https://www.worldwildlife.org/partnership-categories/marketing-partnerships](https://www.worldwildlife.org/partnership-categories/marketing-partnerships)

\(^{36}\) WWF, 2009

3. Relevant funding mechanisms mentioned in Table 2 that could be applied in Indonesia, as explained below.

Apart from those mechanisms mentioned in Section 2.1 above, Oktaviani et al. (2018) explained that there were 156 financing solutions for biodiversity (BIOFIN), of which 73 finance solutions had been implemented in Indonesia, and 83 other solutions had the potential to be applied in Indonesia. Of these existing solutions, eight financing solutions are analyzed here because they already have regulations or are considered to be supportive, namely the State Budget, Corporate Social Responsibility Spending, Debt for Nature Swaps, Taxes and Fees in the Tourism Sector, Payment for Ecosystems Services (PES), Ecological Fiscal Transfer (EFT), Zakat, Infaq, Sadaqah, and Waqf (Ziswaf), and Green Sukuk.

**FIGURE 5 Financing solutions for biodiversity**

<table>
<thead>
<tr>
<th>Sources/Mechanisms of Funding for Biosphere Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestions on Funding Mechanism</td>
</tr>
</tbody>
</table>

### GOVERNMENT APPROPRIATIONS (STATE BUDGET)

According to the past economic development failures and the needs to support global climate change initiatives, the Indonesian government emphasizes concern for sustainability development by declaring its commitment to green economy policy. The commitment is shown by allocating budget in environmental management function, either in national and regional governance level. However, budgetary debates at the national level left environmental affairs so marginalized that it takes only small portion, about one percent, of the total state budget.
This reality is still far from ideal compared to what was planned in the first scenario of Green Planning and Budgeting Strategy Indonesia’s Sustainable Development which aims to elevate the allocation budget share of national expenditure that is devoted to green priorities, from the current level of 1.0% to 3.8% by 2025 (Ministry of Finance, 2015).

To support and to give a contribution to Sustainability Development Goals, the Indonesian government attempts to implement the Green Economy concepts, which encompass the green planning and budgeting process. This Green Planning and Budgeting (GPB) Strategy reflects growing concerns about Indonesia’s impressive record on economic growth, which is vulnerable to environmental risks associated with climate change and the losses and degradation of its abundant natural resources. The GPB Strategy adopts a green economy approach with a primary focus on mitigation of, and adaptation to, climate change and on the environmental and long-term growth.

Green Budget is defined as a reform comprising of all fiscal provisions, either on revenue or expenditure side, adjusted according to the criteria of sustainability. Still, this is undoubtedly a long-term process and should not be expected to provide results within the short-term.

At the national level, one of the commitments of the Indonesian Government towards environmental protection is reflected in Presidential Decree No. 61 the Year 2011 especially in handling issues on combating climate change and protection of the environment. The primary funding source for these functions mainly comes from the state budget, local budget, private sector, and other sources legalized by regulations. However, these, most of the time, become a significant constraint in implementation (Haryanto & Nurkholis, 2014).

As an overview, the following table details the Indonesian Government Expenditure by Function based on State Budget for Fiscal Year 2020:

**TABLE 3 Government Expenditure by Function**

<table>
<thead>
<tr>
<th>Function</th>
<th>(in million Rupiah)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Services</td>
<td>474,999.7</td>
<td>28.22%</td>
</tr>
<tr>
<td>Defence</td>
<td>131,246.4</td>
<td>7.80%</td>
</tr>
<tr>
<td>Order and Security</td>
<td>162,729.0</td>
<td>9.67%</td>
</tr>
<tr>
<td>Economy</td>
<td>406,175.4</td>
<td>24.13%</td>
</tr>
<tr>
<td><strong>Environmental Protection</strong></td>
<td><strong>18,360.6</strong></td>
<td><strong>1.09%</strong></td>
</tr>
<tr>
<td>Housing and Public Facility</td>
<td>30,359.5</td>
<td>1.80%</td>
</tr>
<tr>
<td>Health</td>
<td>61,148.3</td>
<td>3.63%</td>
</tr>
<tr>
<td>Tourism</td>
<td>5,056.7</td>
<td>0.30%</td>
</tr>
<tr>
<td>Religion</td>
<td>10,090.8</td>
<td>0.60%</td>
</tr>
<tr>
<td>Education</td>
<td>156,894.4</td>
<td>9.32%</td>
</tr>
<tr>
<td>Social Protection</td>
<td>226,416.5</td>
<td>13.45%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,683,477.3</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Source: Ministry of Finance, 2019
PRIVATE (CORPORATIONS AND INDIVIDUALS) VOLUNTARY DONATIONS

1. Sustainable Trade Initiative (Inisiasi Dagang Hijau – IDH)
As one of the parties accustomed to connecting the private sector to environmental issues, the Sustainable Trade Initiative (IDH)\(^{38}\) states that in cases such as Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve, what is needed is a business model or business case. If you want to interact with the private sector, there are essential questions that need to be asked both to those who will give money and to those who will receive the funds, namely (i) why we should provide funding to the area, and (ii) what is considered relevant by the private sector? If there is no party providing financial assistance, will the Biosphere Reserve be damaged? If not, then actually there is no business case, and this will not be attractive to the private sector.

The second thing to answer is where to submit their funding assistance if they are interested. Are there specific institutions responsible for receiving the funding? For example, Gunung Palung National Park, besides the forum in collaboration with all stakeholders around the national park, they also formed the Gunung Palung Foundation as an institution receiving funds since the forum cannot receive money.

After the institution is settled, then the next question, what about money management, must be answered.

According to IDH, the target to get funding could be from donors (if no business case), the private sector (by conducting carbon trading as they facilitate the protected forest in Kubu Raya covering an area of 76,000 ha), and financing, i.e., through impact investment. See **ANNEX B** for more information and example on Impact Investment.

2. Tropical Landscape Finance Facility (TLFF)\(^{39}\)
The Tropical Landscape Finance Facility (TLFF), which was born from private commitments under the Paris Agreement, is a Government of Indonesia supportive Initiative facilitated by the UN Environment, World Agroforestry Center, ADM Capital (tasked with structuring the project), and BNP Paribas (as the lead arranger). Not only do TLFF always strive to link funding sourced from the capital market to underline projects, but they also function to ensure that the projects to be funded are of a green status. So it’s not just a matter of the bankability of the project itself but a structure that allows investors to move capital as efficiently as possible through structured funding products (See **BOX 1**).

So, to be able to start the financing phase, there must be enabling conditions at an early stage, for example:

- A project in Riau already has a donor agency that is willing to fund in the beginning. TLFF will help design to the point where private financing can enter. So the roadmap is to have a clear starting point for private financing. The donor agency may conduct the mapping, traceability system, strengthening farmer organizations, governance, and all that takes 1-2 years.
- The guarantee by the state\(^{40}\) also serves as excellent public relations for the country because it will be seen as a strong commitment to a project.
- So the most crucial thing in the framework of involving the private sector is (i) conduct a mapping of private companies in Kapuas Hulu and how much exposure they have related to experience with multinational organizations, and (ii) determine what is the sustainability main driver (whether price, market or what). The bigger the driver, the easier the engagement because in the end it has to be a commercial take-off. So before entering into the funding mechanism, it is necessary to ascertain in advance how ready the project preparation has been carried out, for example, feasibility study, environmental study, the goals, the potential, etc.

See **ANNEX C** - Cooperating with the Private Sector locally, nationally, and internationally.

---

38 Interview with Aris Wanjaya (IDH), 2019
39 Interview with Bangkit (ADM Capital), 2019
BOX 1 Corporate Sustainability Bond

The 1st Corporate sustainability bond in Asia issued by TLFF for a natural rubber company in Indonesia

"On February 26, 2018, the Tropical Landscapes Finance Facility (TLFF) today announced its inaugural transaction, a landmark US$ 95 million Sustainability Bond to help finance a sustainable natural rubber plantation on heavily degraded land in two provinces in Indonesia. The project incorporates extensive social and environmental objectives and safeguards. Planted areas will serve as a buffer zone to protect a threatened national park from encroachment.

A multi-tranche Sustainability Bond arranged by BNP Paribas (BNPP) and issued by TLFF I Pte Ltd. will fund PT Royal Lestari Utama (RLU), an Indonesian joint venture between France’s Michelin and Indonesia’s Barito Pacific Group, for climate smart, wildlife friendly, socially inclusive production of natural rubber in Jambi, Sumatra and East Kalimantan provinces.

The project involves collaboration with WWF, which has worked with Michelin and RLU to set aside remaining High Carbon Stock (HCS) and High Carbon Value (HCV) forest in the RLU concessions, as well as critical wildlife conservation and riparian areas. Out of a concession area of 88,000 hectares, roughly 45,000 hectares will be set aside for community livelihoods and conservation.

The US$95,000,000 Fixed Rate Secured Notes comprise of the following classes: US$30,000,000 Class A Notes due 2033, US$20,000,000 Class B1a Notes 2033, US$15,000,000 Class B1b Notes due 2023, US$15,000,000 Class B1c Notes due 2025 and US$15,000,000 Class B2 Notes due 2033. The Class A notes have been assigned a Aaa(sf) rating by Moody’s.”

Source: Web World Agroforestry website

DONOR BUDGETS (MULTILATERAL, BILATERAL)

1. Multilateral Donor – GEF Small Grants Programme (SGP)

The GEF Small Grants Program was established in 1992 to improve environmental conservation and restoration activities while supporting the livelihood of the community by contributing financial and technical assistance.

Technical assistance includes training in financial management, proposal development, project management, outreach strategies, institutional development, and various small-scale expertise experiences. Planning grants, capacity building, pilot projects, monitoring and analysis, policy dialogue, information dissemination, and networking are types of funding facilities provided.

The Ministry of Environment and Forestry and UNDP are the main partners in channelling grant funds.

The GEF SGP Grant Funds facility is divided into Planning Grant (USD 2,000 - USD 5,000) and Full Grant (USD 10,000 - USD 50,000).

In the TLFF case, USAID as a representative of the United States Government was involved by providing guarantees for the issuance of bonds worth USD 95 million, which had an impact on increasing investor confidence in the transaction.
GEF SGP Programme in Indonesia:

404 Biodiversity projects (since 1993)
87 Climate Change Mitigation projects (since 1998)
13 International Waters project (since 2007)
3 Chemicals projects (since 2006)

55 Multifocal Area projects (since 1995)
16 Land Degradation projects (since 2007)
5 Community-Based Adaptation projects (since 2008)
11 Capacity Development projects (since 2012)

FIGURE 6 Project Map of GEF SGP

The GEF SGP Grant Funds facility is divided into Planning Grant (USD 2,000 - USD 5,000) and Full Grant (USD 10,000 - USD 50,000).

Source: sgp.undp.org

2. Bilateral Donor – Millennium Challenge Account Indonesia (MCA-Indonesia)
Based on the Minister of National Development Planning/Head of the National Development Planning Agency (BAPPENAS) Regulation No. 2 Year 2012, MCA-Indonesia is officially established as the institution managing the Compact Grant on April 2, 2013. With its unique characteristics, the Millennium Challenge Compact (MCC) allows the partner country to design the programs with multi-stakeholder engagement coming from government institutions (line ministries), private sector, academicians, and CSOs.

https://sgp.undp.org/component/countrypages/?view=countrypage&country=1&Itemid=271
From the total grant of USD 600 million, approximately USD 474 million (79%) was disbursed into:

66 Green Prosperity Projects with main activities consisting of
(i) Participatory Land Use and Planning,
(ii) Technical Assistance and Oversight,
(iii) Green Prosperity Facility (grant financing), and (iv) Green Knowledge
   • Installation of 12.75 megawatts of new renewable energy generation capacity
   • Training more than 127,000 farmers, and
   • The certification of sustainable independent smallholder cocoa and palm oil producers

The ‘Community-Based Health and Nutrition to Reduce Stunting’ Project trained over 17,500 service providers on proper feeding for infants and young children, distributed over 35 million iron folic acid tablets for pregnant women, and conducted over 4,200 community sanitation behaviour change meetings in 64 districts.

More than 1,000 individuals participated in the Procurement Modernization Project training program.
There are a lot of NGOs operating in Kapuas Hulu. However, what is still often questioned is that although many parties provide assistance, why there is no additional revenue for the District Government (in the form of cash). One of the reasons for the low level of understanding of Biosphere Reserve is the lack of Biosphere Reserve socialization to the community that creates misconceptions about Biosphere Reserve.

The source of funding for these NGOs is usually from international organizations because the budget from the local government is very minimal in number (See BOX 2). At present, the priority for implementing donors (UNDP, MCAI, TFCA) is local NGOs. The payment mechanism is usually per term, for example:

- TFCA has two schemes: specific grants (max. Rp 1 billion for two years) and regular grants (max. Rp 8 billion for 1.5 – 6 years).
- MCAI has no standards but is geared more towards infrastructures. NGOs can build physically with agreed objectives, for example, the construction of a honey house for community-based honey production in Nanga Lauk, Bunut, and Semangit with a total value of Rp 28 billion for five honey buildings, including office administration and community empowerment programs for 18 months.

The actual potential development that must also be optimized is Non-Timber Forest Products (NTFPs). Kapuas Hulu has honey and rattan potential (among others). The NGO will help the Village in mapping the potential they have. Villages have Village Funds but are often afraid to use them because they feel they cannot be accounted for. There are other cases where the Village knows what their potential is but does not know how to process it. They only realized after input from other parties, such as NGOs, that what they considered normal was a potential that could not be found elsewhere.

For activities within the national park area, the implementing institution must first have a Cooperation Agreement (PKS) with the management of the national park. After signing the PKS, the NGO will notify the National Park of their program while also asking whether the National Park has a program that can be synchronized. This is intended as an exit clause if the donor is no longer there. If they have similar activities, then the NGO and the National Park will work together to optimize the budget owned by each party for that particular issue. For example, the KPP Meliau, after KOMPAKH Adv was no longer there, still received assistance from the Village to take care of the environment, basic tourism facilities, etc. which had indeed been helped when NGOs were there.

When the village still needs assistance, it means the business was not self-sufficient. The main reason is none other than the lack of visits. The peak season is in June - September. In East Kalimantan, the number of tourists can reach thousands. Since KOMPAKH started its activities in 2005 until now, the increase in visits starts from 3 people to hundreds of people annually. One of the challenges is the length of time to reach a tourism destination. In East Kalimantan or Central Kalimantan, it only takes half an hour, while in Kapuas Hulu, it can take up to two days, not to mention access by airplanes from Pontianak to Putussibau which only recently existed.

---

42 Interview result with Mr. Edo (ex KOMPAKH), 2019
INTERNATIONAL NGOS

1. WWF Indonesia

In Kapuas Hulu District, WWF does not explicitly deal with the Biosphere Reserve issue, but rather the Conservation District. After becoming the Conservation District, Kapuas Hulu received a lot of support. For example, the TFCA program has started the fifth cycle, with a value of millions of dollars, and with the presence of 22 NGOs (local, national, and international) operating there with program focus based on forestry or environment (sustainable development). Within the framework of the HoB and Conservation Districts, there has been an average increase in funding per year from WWF, which is IDR 1-2 billion for three programs (before 2018), and IDR 2-3 billion for four programs (for the period 2018 - 2022).

The assistance includes (i) capacity building by providing training so that people get new knowledge or strengthen existing knowledge, (ii) funding stimulation of business schemes for the community, and (iii) building basic infrastructure (in physical form), for example, the construction of a micro-hydro pilot project, strengthening community initiatives related to clean water piping. The distribution of aid is done through Community-Based Organizations (CBOs) and directly to community groups, such as Farmer Groups, Fisheries Groups, etc.

Besides WWF, in Kapuas Hulu, there is also a Forest Investment Program (FIP) program, a sustainable community-based and forest-based investment development supported by ADB for areas in almost all districts but with a focus on the Forest Management Unit area. There are also programs funded by the Millennium Challenge Account Indonesia (MCAI) with an investment focus on physical development carried out by CSOs or CBOs.

43 Interview result with Mr. Hermas (WWF Kapuas Hulu), 2019
## TABLE 4 Norwegian Embassy projects in Indonesia

<table>
<thead>
<tr>
<th>Project</th>
<th>Period</th>
<th>NGO</th>
<th>Amount(^{45})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerating low emissions development in Indonesia through sustainable land-use management</td>
<td>2016 - 2021</td>
<td>WRI</td>
<td>USD 25,559,686</td>
</tr>
<tr>
<td>Indonesia Sustainable Landscape Management Multi-Donor Trust Fund</td>
<td>2016 - 2018</td>
<td>WB</td>
<td>USD 6,863,171</td>
</tr>
<tr>
<td>REDD+ Support Facility Multi-Donor Trust Fund</td>
<td>2013 - 2017</td>
<td>WB</td>
<td>USD 1,181,365</td>
</tr>
<tr>
<td>BRG support through UNOPS</td>
<td>2017 - 2020</td>
<td>UNOPS</td>
<td>USD 38,816,295</td>
</tr>
<tr>
<td>Eastern Indonesia Forest Facility</td>
<td>2019 - 2023</td>
<td>RFN</td>
<td>USD 14,953,837</td>
</tr>
<tr>
<td>Support to building REDD+ infrastructure (stakeholder engagement and technical assistance to finalize Indonesia’s REDD+ architecture and its financing instrument)</td>
<td>2018</td>
<td>Kemitraan</td>
<td>USD 4,725,462</td>
</tr>
<tr>
<td>Desa Peduli Gambut (Caring for Peatland Villages).</td>
<td>2017 - 2018</td>
<td>Kemitraan</td>
<td>USD 2,025,198</td>
</tr>
<tr>
<td>South Sumatra Partnership for Landscape Management Support. The project is implemented by a consortium of organizations, with Zoological Society London as the consortium lead</td>
<td>2016 - 2020</td>
<td>Dengan DFID sebagai donor utama</td>
<td>USD 11,476,122</td>
</tr>
<tr>
<td>Tenure Conference 2017, Forest and Land Tenure and Governance for Equitable Development</td>
<td>2017 - 2018</td>
<td>Kemitraan</td>
<td>USD 157,515</td>
</tr>
</tbody>
</table>

Source: Royal Norwegian Embassy Jakarta website

---

\(^{44}\) https://www.norway.no/en/indonesia/values-priorities/deforestation-and-climate-change/bilateral-climate-and-forest-support/project-support/

\(^{45}\) NOK 1 = USD 0.11

---

**Suggestions on Funding Mechanism**
DEBT-FOR-NATURE SWAPS

The rapid declining forest cover between 1998 and 2008 in Indonesian Borneo concerned the US Government and the Government of Indonesia. An agreement was signed to divert USD 28.5 million of Indonesia’s debt to the US into a project funding to improve local land use.

The US Tropical Forest Conservation Act (TFCA) manages the debt-for-nature swap mechanism to divert foreign debt to the protection of critical forest habitats. The targeted areas include Berau and Kutai Barat Districts in East Kalimantan Province and Kapuas Hulu District in West Kalimantan Province as the “hotbeds of threatened biodiversity and carbon-rich tropical forest.” Hence, the most suitable party for applying the funds is the local governments instead of provincial or national governments.

ENVIRONMENTAL (CONSERVATION) TRUST FUNDS

1. Global Environment Facility (GEF) Trust Fund

In the 1992 Rio Earth Summit, 39 donor countries tried to tackle environmental issues by establishing The Global Environmental Facility (GEF) Trust Fund. Their contribution is to provide funding which is replenished every four years.

The donors selected the World Bank to be the Trustee tasked with mobilization of GEF resources, disbursement of funds to GEF agencies, preparing financial reports on the use of resources and investments, monitoring the application of budgetary and project funds, and preparing periodic reports.

One unique characteristic of GEF is the structure comprising of the GEF Assembly, GEF Council, GEF Secretariat, 18 GEF Agencies, GEF Scientific and Technical Advisory Panel (STAP), and GEF Evaluation Office.

**FIGURE 8 Indonesia at a glance**

<table>
<thead>
<tr>
<th>Country-At-A-Glance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Projects</td>
</tr>
<tr>
<td>131</td>
</tr>
</tbody>
</table>

Source: https://www.thegef.org/country/indonesia


47 https://www.thegef.org/project/sfm-sustainable-forest-and-biodiversity-management-borneo
Developing countries and countries trying to meet the international environmental conventions and agreements are the beneficiaries of GEF Funds. Its support focuses on a wide range of potential partners in the recipient countries, such as government institutions, CSOs, private sector, and research institutions to execute projects and programs.

GEF Agencies working in Indonesia:
- Asian Development Bank
- Conservation International
- Food and Agriculture Organization
- International Fund for Agricultural Development
- The World Bank
- United Nations Development Programme
- United Nations Environment Programme
- United Nations Industrial Development Organization
- World Wildlife Fund - US Chapter

2. Conservation International (CI)\textsuperscript{48}

As nature provides benefits to humanity, CI attempts to pinpoint and guarantee those benefits. Since its inception, CI has improved the protection of over 6 million square kilometers of land and sea across more than 70 countries. At present, 2,000 organizations in 29 nations have been partnered with CI.

In Indonesia, CI concentrates on designing and strengthening marine protected areas (MPA) to make sure that Indonesia continues as a sustainable source of food and tourism revenue. Having a close working relationship with the business community made a significant impact on the environment of Indonesia. Commitment to enhancing business practices or conservation efforts is increasing.

\textsuperscript{48} https://www.conservation.org/places/indonesia

Source: https://www.thegef.org/about/organization

\textbf{FIGURE 9 GEF governing structure}
CI, along with USAID and the Walton Family Foundation, founded the Sustainable Landscapes Partnership (SLP), which then partners with local communities, private sector, local government, and the Ministry of Forestry to promote and replicate green development business models, mainly through economic alternatives to deforestation.

Focus area in Indonesia includes four regions in North Sumatra Province (Mandailing Natal, Tapanuli Selatan, Tapanuli Utara, dan Pakpak Bharat) and West Papua Province.

‘SLP also advises on regulations for West Papua’s “conservation province” framework.49 In 2004, one of the most aspiring community-based conservation initiatives, namely the Bird’s Head Seascape, was launched. It is a network of 12 MPAs covering more than 3.6 million hectares created by more than 30 partners, including WWF, TNC, Government of Indonesia, and the people of West Papua.

INTERGOVERNMENTAL FISCAL TRANSFERS

Transfers to regions (intergovernmental fiscal transfers) consist of several types of funds with the following details50.

— **Revenue Sharing Funds (DBH)**
  are allocated to Regions based on the State Budget (APBN) revenues to fund the needs of the region in the context of implementing decentralization.
  - Aims to reduce the vertical imbalance.
  - There are two categories of DBH, based on the source, namely: taxes (DBH Pajak), and natural resources (DBH SDA).

— **General Allocation Funds (DAU)**
  are Central transfer to Regional Budgets in the form of an Unrestricted Block Grant.
  - Aims to reduce fiscal imbalance among local governments (horizontal).

— **Special Allocation Funds (DAK)**
  are funds allocated among regions to assist with particular responsibilities that are considered to be national priorities. DAK is divided into:
  - Physical DAK which aims to improve basic public services and inter-regional equity.
  - Non-Physical DAK which aims to fund the operational activities of public services.

— **Special Autonomy Funds**
  additional Infrastructure Funds in the context of Special Autonomy and DIY Privileges Funds.
  - Aims to encourage accelerated development in special areas.

— **Local Incentive Grant (DID)**
  are fiscal transfers from Central government to Local governments meeting specific criteria on sound budget management practices in local financial governance, public service governance, basic public services, and public welfare.
  - Aims to motivate local government in improving performance.

— **The Village Fund (DD)**
  is allocated to improve public services in the village, alleviate poverty, advance the village economy, and overcome development disparities between villages.

The Ministry of Finance defines the Ecological Fiscal Transfer (EFT) as ‘a modification of intergovernmental fiscal transfers—redistributing the national budget across levels of government according to agreement upon ecological principles and priorities.’ Several EFT mechanisms applied in Indonesia are:

1. **Ecology-Based Provincial Budget Transfers (TAPE)**

TAPE is a transfer of funds from provincial government to its districts/municipalities allocated on the basis of the performance in protecting the environment. In other words, TAPE tries to encourage local governments to protect forest areas in their region. TAPE has 2 scenarios, first, the basic allocation and incentive-disincentive scenario. Districts will get basic allocation plus incentives if the region is able to maintain its forest area, and disincentives if the forest area is reduced. Second, scenarios based on district/municipality forest cover index relative to other regions – areas with deforestation rates greater than the maximum level will not get incentives.

North Kalimantan Province has implemented TAPE with commitment to reduce greenhouse gas (GHG) emissions by 11.79% in their Local Action Plan for GHG (RAD-GRK). There is a number of criteria that must be met, including the prevention and control of forest and land fires (Karhutla) in Areas for Other Uses (APL) by 15%, provision of green open space by 20%, waste management by 25%, protection of water resources by 30% and prevention of air pollution by 10%. In February 2019, the North Kalimantan Governor Regulation (Pergub) Number 6/2019 on the Amendment of Governor Regulation Number 49/2018 on Procedures for Giving, Distribution, and Accountability of the Financial Assistance of the Government of North Kalimantan Province was enacted to support the mechanism.

2. **Ecology-Based District Budget Transfers (TAKE)**

To be able to get more considerable financial assistance (TAPE) from the province, the districts need help from the community as well. Logically, the districts will impose provisions that are more or less the same as the provisions for getting TAPE from the province.

At present, there are still many districts that act as cashiers to deliver DD to the villages. Learning from TAPE, the district also applies the same concept to the villages that they will be able to receive more DD if they follow the ecology-based provisions published in Perbup and are revised every year. That’s the definition of TAKE.

The village performance will then determine the amount of DD received by that particular village (DD will no longer be flat as previously done). According to Minister of Village Regulation, DD transferred by District Government is based on (i) affirmations, (ii) basic allocation, and (iii) performance allocation. The Head of District Regulation will stipulate the sources of funds and indicators; for example, North Aceh District focuses on the forest cover area.

Some district governments in Aceh Province, such as Bener Meriah District and Pidie District began to formulate the concept of TAKE.

---

51 [https://www.biodiversityfinance.org/sites/default/files/content/knowledge_products/EFT%20Infographic.pdf](https://www.biodiversityfinance.org/sites/default/files/content/knowledge_products/EFT%20Infographic.pdf)
52 Interview with Joko Tri Haryanto (PKPPIM), 2019
55 Interview with Joko Tri Haryanto (PKPPIM), 2019
3. Local Incentive Grant (DID) \[58\]

The DID mechanism is different from DBH and DAK - districts’ performance will be challenged to get additional incentives from the Central Government (to increase competition among district governments). There are 564 districts and 34 provinces that are competing. For 2020, the government has budgeted DID of IDR 15 trillion, an increase of 50% compared to 2019 IDR 10 trillion.

Prior to 2019, the DID was more towards the economic indicators, e.g., APBD management for public services (education, health, infrastructure, and better governance), timely submission of local government regulations, e-government, e-procurement, e-budgeting, and unqualified audit results for three years in a row. Since 2019, DID has added indicators related to the environmental issue, namely waste management.

\[58\] Interview with Joko Tri Haryanto (PKPPIM), 2019

Source: Loft, Lasse, & Gebara, Maria F., & Wong, Grace Y (2016)
INVESTMENT, CREDIT, AND ENTERPRISES FUNDS

Until 2018, for an investor to be able to invest in a conservation area needs to meet so many-layered criteria, namely:

- National Parks (TN) under KSDAE, also apply zoning systems – which zones can be utilized and which ones cannot.
- Investors must set aside a minimum of five percent of profits from business results for the development of small and medium businesses and cooperatives.

For instance, National Parks:

- Investment in Indonesia’s conservation areas is prohibited for foreign investors. Business actors who want to build facilities and infrastructure for commercial tourism equipment must be Indonesian entrepreneurs;
- To be aligned with conservation, it is regulated through strict licensing by attaching plans for decades to come.

However, in 2019 the Ministry of Environment and Forestry issued Minister of Environment Regulation Number P.8/MENLHK/SETJEN/KUM.1/3/2019 on Nature Tourism Management in Wildlife Reserves, National Parks, Grand Forest Parks and Nature Tourism Parks as a revision of Minister of Forestry Regulation Number P.4/Menhut-II/2012 on Revision of Minister of Forestry Regulation Number P.48/Menhut-II/2010 on Nature Tourism Exploitation in Wildlife Reserves, National Parks, Grand Forest Parks, and Nature Tourism Parks.

BENEFIT/REVENUE SHARING

This funding mechanism gives a percentage of total income (for instance, National Parks) to the surrounding communities as an incentive to support conservation. It also allows the community to conduct activities in the vicinity of the national park without damaging the environment. The Benefit/Revenue Sharing mechanism has been implemented in the Gunung Gede Pangrango National Park (TNGGP).

In the beginning, the surrounding communities planted crops by cutting down trees, which is undoubtedly a prohibited activity because the trees in this national park cannot be cut down. On the other hand, TNGGP does not want the community to lose their livelihoods either. Therefore, they have provided awareness raising for the surrounding community to realize how important it is to protect conservation areas and to be trained and given assistance to raise livestock. In addition, farming communities must plant trees in the area around their agriculture. Community contribution to conservation areas does not stop there. Since their awareness has increased, they also help maintain the safety of conservation areas and patrol together to guard TNGGP against thieves.

So, people who live in the area around the national park can continue to earn income by working together with TNGGP to maintain the sustainability of this conservation area.
The Nature Tourism Business Permit (IPPA) consists of two types:

- **Business License for the Provision of Nature Tourism Services (IUPJWA)**, which includes tourism information services businesses, tour guide services, transportation service businesses, tourism travel services businesses, souvenir service businesses, and food and beverage service businesses (Article 6 paragraph 1).

- **Business Permit for Provision of Natural Tourism Facilities (IUPSWA)** includes water tourism, accommodation, transportation, and adventure tourism (Article 8 paragraph 1).

According to the regulation, all of these businesses can only be carried out in the business area in the utilization zone of the National Park, Grand Forest Park, and Nature Tourism Park (Article 4 paragraph 2 and 3).

Interestingly, this latest legal product makes it easier for company owners to obtain IPPA in the National Park area. Previously, company owners had to go through a long and convoluted process, in this latest scheme, they no longer deal with each agency in managing licensing, but only have to deal with the so-called Online Single Submission (OSS). The licensing scheme through OSS is carried out in an integrated and electronic way under the Indonesian Investment Coordinating Board (BKPM).

In addition, Article 18 of Minister of Environment and Forestry Regulation P.8 of 2019 states that business actors that can invest in the form of Business License for Nature Tourism Service Providers (IUPJWA) and Business Permit for Natural Tourism Facility Providers (IUPSWA) are the ones already obtained a Business Registration Number (NIB) issued by the OSS Institute, without further explanation whether the individual business owners are foreign investors or not.

Haryanto, & Djempau, & Afioma (2019) concluded that Jokowi’s government policy that opened a full tap for investment through IPPA in conservation areas, for example in Komodo National Park, has a negative impact on the preservation of the natural habitat of Komodo which has been the primary branding of NTT tourism in the world.

**LEASES AND CONCESSIONS FOR PRIVATE/COMMUNITY MANAGEMENT OF LAND, RESOURCES, AND FACILITIES**

It is not unusual to involve outsiders in the implementation of financing and management of conservation areas. This is done in order to share the costs borne by conservation parties by, for example, companies or external communities. By distributing these costs, the conservation group has benefited from the existence of significant new funding and cost savings. The division of costs referred to may cover various fields in management, such as in a situation where external/private parties assume responsibility in managing or funding activities within their own concession area. Such a method produces many benefits as long as the parties involved are consistent and have the same goal to prioritize conservation. The example discussed in this section will contain conservation management given to private parties/companies.

The Ministry of Forestry (now Ministry of Environment and Forestry) approved a lease of the land (conservation concession) covering 40,000 hectares of forest on the Sumatra island to the Frankfurt Zoological Society (FZS), The Orangutan Project (TOP), and WWF. To protect a former logging forest,

---

61 It is now more accessible for people to invest in conservation areas after Minister of LHK Regulation number P.8 / 2019 applies. The ecosystem, for example, in Komodo National Park, guaranteed by a balanced interspecies relationship between local people, animals, and plants for thousands of years, has been exacerbated.

Bukit Tigapuluh, rather than abuse the land’s natural resources, has become their goals. They join forces with local communities using innovative financing approaches combined with traditional conservation. The collective action is to ensure that the 40,000 hectares of Bukit Tigapuluh will be a restricted zone for restoration and render a license for the next 60 years to control the area.63

**REVENUE FROM TOURISM AND RECREATION**

In general, Non-Tax Revenue (PNBP) directly generated by a national park is ecotourism, such as lodging, camping areas, hiking trails, and waterfalls. The national park may get indirect income/revenues through the business, such as the rental of camping equipment, located in the vicinity of the National Park. If the entrance ticket as PNBP to the campsite is IDR 16 thousand, and a visitor buys a camp package, which includes the entrance fee, from a business located in the vicinity of the National Park for, let’s say, IDR 100 thousand per night, then the surplus belongs to the businessman. The National Park cannot receive more than what is stipulated as the PNBP in the Government Regulation No. 12/2014 on PNBP applied for the Ministry of Environment and Forestry.

**RESOURCE USE FEES**64

Hiking trails in Gunung Gede Pangrango National Park (TNGGP) have always been famous. So many visitors come to TNGGP to hike, especially on weekends. Based on studies with universities, TNGGP has set a quota of 600 visitors per day for hiking. To track the number of visitors each day, an online system for booking the hiking trails is installed. After making an online order, on D-day, you still have to pass a physical check at the TNGGP office to ensure the latest health before being allowed to hike. If you do not pass the test, the tickets are forfeited (there is a disclaimer when ordering online). The limitation of hikers per day must be applied due to its primary focus as a nature conservation area, that is, to maintain the originality of the ecosystem.

Besides the total number of visitors per day, TNGGP only operates for eight months each year. The park is closed from January until March (wet months) due to the bad weather and, at the same time, provides recovery time for the plants, for the management to do the repairment (if needed), etc. Closing might also be carried out in the dry season (usually in August) to protect against forest fires, and the duration depends on information from the Meteorological, Climatological, and Geophysical Agency (BMKG).

63 https://wwf.panda.org/wwf_news/?250775/Bold-move-to-conserve-Sumatran-forest
64 Interview result with Mr. Ade Bagja (TNGGP), 2019
Ticket price for hiking trails:

**WEEKDAYS**

- **WEEKDAYS**
  - IDR 29,000 (WNI)
  - IDR 17,500 (STUDENT with students ID card)
  - IDR 320,000 (WNA)

**WEEKEND**

- **WEEKEND**
  - IDR 34,000 (WNI)
  - IDR 20,500 (STUDENT with students ID card)
  - IDR 470,000 (WNA)

Campsites and Waterfall bookings are made on the spot since campsites are relatively open throughout the year. Still, recreation to the waterfall is given on a limited basis (depending on the situation).

**BIOPROSPECTING FEES**

UNDP\(^{66}\) defines biodiversity prospecting or bioprospecting as ‘the systematic search for biochemical and genetic information in nature in order to develop commercially-valuable products for pharmaceutical, agricultural, cosmetic, and other applications.’ Bioprospecting can only be carried out in countries that have a national law or policy to regulate access to genetic resources and Access and Benefit Sharing (ABS), which may or may not be compliant with the Nagoya Protocol.

The following are examples of bioprospecting activities in Indonesia:

- In the early 90s, two research institutions based in Manoa, Hawaii, started marine bioprospecting in Bunaken. So many new and useful compounds, primarily from marine animals, such as sponges and tunicates, were discovered after just a few years. A US Patent for antitumor treatment was also granted to the discoverers. However, there has been no economic benefit from that patent in any public domain up until now.\(^{67}\)

- The Gunung Ciremai National Park Office of the Ministry of Environment and Forestry, in collaboration with the Bogor Agricultural Institute (IPB), is developing useful microbial bioprospecting as an effort to increase the productivity of healthy agriculture without chemical fertilizers and pesticides.\(^{68}\)

---

\(^{65}\) [https://booking.gedepangrango.org](https://booking.gedepangrango.org)

\(^{66}\) [https://www.undp.org/content/dam/sdfinance/doc/Bioprospecting%20_%20UNDP.pdf](https://www.undp.org/content/dam/sdfinance/doc/Bioprospecting%20_%20UNDP.pdf)

\(^{67}\) [https://www.insideindonesia.org/big-business-big-damage](https://www.insideindonesia.org/big-business-big-damage)

PAYMENTS FOR ECOSYSTEM SERVICES

Fripp (2014) explains that ‘Payments for Ecosystem Services (PES) occur when the beneficiaries or users of an ecosystem service make payments to the providers of that service (See Figure 11). In practice, this may take the form of a series of payments in return for receiving a flow of benefits or ecosystem services. The basic idea is that whoever provides a service should be paid for doing so.’

In his article, Megawanto (2018) mentions water use services in the Cidanau watershed, Banten Province as one example of PES application in Indonesia. The beneficiaries, in this case is PT. Krakatau Tirta Industri (KTI), a drinking water company that utilizes raw water from the Cidanau River to produce clean water. While the environmental service providers in this case are the people who live in the upper reaches of the Cidanau watershed, the people of Cibojong Village and Citaman Village (in its development Cibojong Village was replaced by Cikumbueun because it violated the agreement). Among the beneficiaries and providers of environmental services are the Cidanau Watershed Communication Forum (FKDC) as a transaction mediator as well as a Cidanau watershed management agency whose management structure consists of government agencies, the private sector, Non-Government Organizations (NGOs), and the community.

PT. KTI as the buyer agreed to voluntarily pay IDR 175,000,000 (one hundred seventy five million rupiah) per year with an agreement on payment for environmental services for 5 (five) years. The benefits obtained by PT. KTI of this transaction are to overcome the decrease in the Cidanau river water flow caused by degradation in the upstream Cidanau watershed. While the village community as a seller (seller/provider) receives a payment of IDR 1,200,000/ha with an agreement period of payment for environmental services for 5 (five) years. FKDC as a mediator gets 15% of the transaction value used for the cost of managing environmental services, including distributing payments from PT. KTI to the village community.

FIGURE 11 An example of how PES works in watersheds

Source: Adapted from Smith et al. 2013 in Fripp, 2014
CARBON FINANCE

PRCF network exists only in Southeast Asia (Thailand, Vietnam, Cambodia) and in Indonesia only in West Kalimantan. The approach taken by this institution is community conservation and empowerment, particularly in West Kalimantan, where there are still many people who live in and around the forest.

In 1996, PRCF established the Rubber-based Agroforestry program in Sintang because it was still rife with shifting cultivation, which was then abandoned and potentially causing fires. The model is from World Agroforestry Centre (ICRAF), which is conducting a study wherein Sintang there is a cultural uniqueness in the form of Dayak ikat. PRCF tries to preserve this culture because it involves many women, the use of colouring plants, etc. So the PRCF made an agreement with the community where the PRCF would provide capacity building, but the surrounding community also had to protect the forest.

In 2010, PRCF started the Community-Based Forest Management (CBFM) program and only began its operation in Kapuas Hulu District in 2011 to identify which villages were interested in conducting CBFM in Kapuas Hulu District. Four villages were interested, namely Nangayen village (Hulu Burung sub-district), Nanga Jemah and Siliwangi villages (Boyan Tanjung sub-district), Tanjung village (Mentebah sub-district).

In 2016, under the Social Forestry scheme, a Village Forest Management (LPHD) was formed in Nanga Lauk Village, with an area of 1,430 hectares. PRCF facilitated LPHD so that the LPHD can be managed sustainably from its business. For example, there is potential for honey, and honey farmers already exist, so a honey business unit is formed under the LPHD, i.e., in the form of honey cooperatives. PRCF assists the LPHD within the framework of the ADB HoB (Heart of Borneo) program as a facilitator of Plan VIVO, who usually issues certificates for carbon, biodiversity, and community welfare. LPHD is facilitated to be able to prepare some supporting data, such as social data, biodiversity, bio-physical data, etc. to develop a PIN (concept note) document that will be submitted to Plan VIVO. If this concept note is accepted, then a complete proposal (PDD) is prepared. Plan VIVO then verifies the field related to the existence of LPHD, its management plan, etc. Only after all is agreed, the data is uploaded to their website that in the area there is a community-managed forest management unit that contains its carbon potential, biodiversity, etc.

In Indonesia, the carbon trading process is not yet running. However, a transaction similar to the concept happened, although, in the end, the deal was done not by calculating the amount of carbon but by the total costs of maintaining the area of the forest for the next 25 years (See BOX 3).

CORPORATE SOCIAL RESPONSIBILITY SPENDING

Corporate social responsibility is funding provided by the private sector that aims to improve the protection and maintenance of biodiversity and conservation areas. Increasing the role of private companies is deemed necessary because, so far, the funding obtained by conservation parties has only come from the government and donor agencies. CSR seems to be a good option since it is grant assistance and is stipulated by Indonesian regulations.

The first example is CSR funding assistance from the State-Owned Enterprises (BUMN) in celebrating its anniversary in Labuan Bajo, East Nusa Tenggara. The event included activities, such as the Leadership Forum, followed by the handing over of IDR 14.3 billion for the Komodo National Park and local communities. This activity is part of the BUMN program with the heading “Synergy of BUMN for Indonesia”.

---

69 Interview result with Mr. Imanul Huda (PRCF), 2019
70 https://viramakarya.co.id/kegiatan/bumn-salurkan-dana-csr-dalam-peringatan-hut-bumn-di-labuan-bajo-ntt/
The next activity is a CSR program from Daihatsu, through the Daihatsu Green Pillar, which collaborated with the Thousand Islands National Park Office in the inauguration of the Turtle Sanctuary centre and the preservation of the animal titled “Turtle for Indonesia” in June 2019. The Turtle Conservation Center is intended as one of the facilities for hatching eggs and releasing hatchlings into the sea. The inauguration of the centre was carried out with the release of 50 hatchlings to the sea by all guests.71

Talking about sea turtle conservation, the north coast area of Baluran, Situbondo, will also be a turtle-friendly area with cooperation between PT. Indonesian Railways with the Banyuwangi Sea Turtle Foundation (BSTF) and Baluran National Park. Activities carried out on September 6, 2019, began with planting sea pandanus as a form of concern for the marine ecosystem. At the beginning of the event, symbolically, this activity planted 20 sea pandanus seeds around the beach, followed by the planting of 150 trees.72

---

**BOX 3 Almost a Carbon Trading Project**

**A Case Study in Nanga Lauk Village, West Kalimantan**

The calculation of carbon potential is carried out by a consultant funded by the ADB Heart of Borneo (HoB) program. The PRCF is appointed as the project coordinator (facilitator) who will facilitate planning, technical activities (strengthening community institutions, compiling Annual Work Plans submitted to the Ministry of Environment and Forestry and Provincial Office, making 5-year and 10-year medium term management, training in the use of patrol applications from Patrol SWAT mobile phones, including managing the database), conducting monitoring and evaluation, and making annual reports, etc.

After successfully obtaining Plan VIVO certification and through promotion conducted by Plan VIVO, there was a third party who was interested (an oil palm plantation from abroad, member of RSPO). The company must carry out environmental management that is environmentally friendly and has just bought another company that does land clearing without paying attention to environmental aspects. With the ownership of the company, the third party was obliged to pay compensation for damages done by their subsidiaries.

Through Lestari Capital (a broker based in Singapore), several schemes began to be discussed. In general, the carbon scheme is how many tons of carbon can be absorbed by the existing forest area multiplied by the agreed sale value per ton. But with this method, the payment is too small to be used in financing the management/maintenance of the village forest area. The option to use forest area is also considered as unsatisfactory. Finally, the agreement came after the prospective carbon buyer asked how much it would cost to manage the village forest over the next 25 years. The agreed amount was IDR 34 billion or around USD 2.5 million.

The advantage of this transaction is that although there are transactions for village forest management over the next 25 years, the carbon buyer company does not take into account the carbon emissions produced and donates them to the Government of Indonesia (RSPO emphasizes more on the conservation). Unfortunately, the Indonesian Government was not ready to anticipate this incident - no regulation on the governance for the delivery of carbon from the village forest stipulated yet. Though PRCF had asked the Ministry of Environment and Forestry (Directorate General of Social Forestry and Environmental Partnership), yet no answer is given.

Source: Interview with PRCF, 2019

---


ZISWAF is a tool used in the Islamic economic system to empower the underprivileged. By definition, zakat is a form of compulsory levies given from the wealth of members of the Muslim community to help those who are poor and needy. In this regard, Indonesia already has an official body that collects and distributes zakat for the neediest, namely BAZNAS (National Amil Zakat Agency), which in its application channelled aid funds to improve the lives of the people of Indonesia.

As a pioneer for other zakat institutions, BAZNAS established cooperation in 2017 with UNDP in the context of achieving SDGs in Indonesia. BAZNAS, together with UNDP, are collaborating in the Market Transformation through Design and Implementation of Appropriate Mitigation Actions in the Energy Sector (MTRE3) program conducted in Jambi. Funding assistance provided came from both parties, UNDP and BAZNAS, where BAZNAS provided funding of 350,000 USD for the development of PLTMH in Jambi. Although not directly related to environmental conservation, funding by BAZNAS is an excellent first step as a form of achieving SDGs, which are expected to expand in the future to contribute to nature conservation.

CONSERVATION BONDS

Bonds, by definition, are a form of tradable debt. The bonds still need to be repaid during the specified time. Concerning nature conservation in Indonesia, one of the ways the government practices this is through the Reforestation Fund (Dana Reboisasi) managed by the Government of Indonesia, which is then distributed to regions such as the provincial or district level. The fund is a 'contract' where the Central Government will return the fund to the Local Governments if they have reforested their area. This program was carried out by the Indonesian government in 2003-2009, with a target area of 5 million hectares of degraded land. The allocation of these funds comes directly from the government budget of the Ministry of Forestry. However, the implementation of this program experienced harsh criticism because the community considered that this program was less effective in overcoming the problem of land degradation.

Responding to this, starting in 2019, the Ministry of Environment and Forestry will start a Sukuk-based infrastructure project (Green Sukuk). Green Sukuk is an SBSN (State Sharia Securities) coded as Sukuk Tabungan ST 006 series and is the first to have a bond with the environment. Green Sukuk, with its publication, will be used to finance environmental projects, which are in accordance with the government’s commitment to dealing with global environmental issues. The Minister of Environment and Forestry, Siti Nurbaya, stated that the Sukuk project which financed the environment would help in the development of five Indonesian national parks. The five parks are Ujung Kulon National Park, Gunung Halimun Salak National Park, Alas Purwo National Park, Bunaken National Park, and Cendrawasih Bay National Park. The form of assistance provided through the Sukuk project is the construction of facilities and infrastructure, such as access roads, control towers, toilets, pavilion, and others.

ST 006 Sukuk is the first Islamic investment product offered by the Indonesian government as an affordable and profitable investment alternative. This sukuk is also managed based on sharia principles, which means it does not contain elements such as gambling (maisir), unclear (gharar), or usury. Not only that, green sukuk is very suitable for novice investors because it is affordable and provides rewards.
PUBLIC-PRIVATE PARTNERSHIPS

The government protected area institutions increasingly establish partnerships with private/business organizations not only due to lack of funds to facilitate activities but also in management. This mechanism is beneficial in opening up income options for protected area institutions that are not always available if only dependent on the government. However, the partnership between the public and the private sector is not always related to funding but may involve development assistance such as workshops and capacity building for young professionals. Discussing this, one example of the partnership that has existed between government protected areas and the private sector is the Giam Siak Kecil-Bukit Batu (GSK-BB) Biosphere Reserve through the Indonesian Institute of Sciences (LIPI) with the Asia Pulp and Paper Group (APP) in water treatment projects that have the potential to clean water sources in Sumatra. APP established this partnership as part of a sustainability program to empower the areas where the company operates. To carry out the program APP collaborates with MAB Indonesia, which is managed by the Indonesian government and is closely connected with LIPI.

In implementing the project, the partnership between government and private sector consisted of a team of Indonesian MAB scientists, LIPI, as well as from APP and people who live in and around the GSK-BB Biosphere Reserve. This program is carried out by installing a water purification system that converts peat water into clean water that is suitable for human use and consumption. Not only assisted in the installation of the system, local communities will also be given instructions and training and maintenance of the tool.77

Another example of a partnership between the government and the private sector is in Maluku, North Maluku, and West Papua, where the Marine Protected Area in the area received guidance from USAID. The activity took place in November 2018 in Bali, under the name “Technical Report: Workshop on Public-Private Partnerships and Small-Scale Tourism for Marine Protected Areas.” The main focus of the activity is to trigger stakeholders to start engaging in MPAs, developing small-scale ecotourism. With that focus, the purpose of USAID’s activities is in the “capacity building” aspect, not in the issue of funding. There are several objectives for USAID’s involvement in the MPA. First, is to explain the importance of PPP and its relationship to the MPA. This contains basic information about the definition of PPP for stakeholders and its benefits. Second, to facilitate opportunities for new PPPs and developing concepts. USAID supports the participants present to develop ideas about new PPP models that can be implemented in their MPA areas. Third, is visiting the MPA, which has been chosen as a comparative understanding and learning between Lembongan and Nusa Penida, both of which have great potential in ecotourism. Finally, raising awareness among small-scale ecotourism leaders in Maluku, North Maluku, and West Papua.78

Another example of the PPP implementation process can be seen from Lorentz National Park (TNL) in Papua, which conducted a workshop between the government and the company and local communities in the region. TNL conducted a workshop aimed at covering the lack of funding for the management of the conservation area. The workshop was held in collaboration between the Provincial Government of Papua, the Lorentz National Park Office, and WWF-Indonesia. Not only that, participants who attended the workshop also consisted of prominent companies such as PT. Freeport Indonesia and representatives from Indigenous Peoples in the region. Although it has not yet produced a significant amount of work, the workshop created an Ad Hoc organization that would manage and monitor the implementation of the workshop agreement. This is the first step in a sustainable funding process for conservation management.79

79 https://www.wwf.or.id/?24229/menggagas-dana-abadi-bagi-pelestarian-taman-nasional-lorentz
COMMUNITY PARTICIPATION

Talking about costs incurred to protect a conservation area does not merely cover the direct expenses used to develop and manage the area. There are other costs not charged to the government but paid by the people living in and around the protected area. These burdens include damage to plants or plants in the locality where they live because of protected wildlife and loss of access to livelihoods due to protected areas. This causes the need for a mutually beneficial relationship for the conservation agency with local communities. An example of this application is in the Meru Betiri National Park (TNMB) in East Java.

The REDD+ program supported the partnerships established between conservation parties and local people. The objective of conserving TNMB is part of Indonesia’s ability to act with the Norwegian government, through REDD+, to reduce emissions by reducing deforestation and forest degradation. As explained earlier, there is an obstacle borne by the locals due to their protected livelihoods. The REDD+ action in TNMB this time is an effort to improve local livelihoods while at the same time maintaining environmental conservation.

The leading cause of forest degradation in TNMB is due to a lack of agricultural land to meet the growing numbers and needs of farmers, and there is no alternative for farmers without disturbing the conservation of TNMB. In response to this, conservationists have sought to improve local livelihoods through policy measures that have the support of local NGOs. One of the REDD+ actions is providing a portion of the land within TNMB as a source of livelihood. Since the project began, local communities have been allowed to receive income by planting and selling crops through the agroforestry system. This is one of the actions considered to be able to fulfil both of the initial objectives, to maintain the condition of protected areas, and to improve the economy of local communities.

Another action taken by REDD+ to achieve its initial objectives is to increase the awareness and motivation of local communities towards the rehabilitation process of TNMB. Park management entered into an agreement with local communities to increase partnerships by reducing emissions from deforestation and forest degradation. One of the weaknesses, why people continued to deforest previously, was the lack of information they got during the REDD+ project. The research stated that almost 90% of the local community did not know that the aim of the rehabilitation program that was being carried out in TNMB was to reduce CO2 emissions from deforestation and forest degradation. The biggest achievement of a compromise between conservation, REDD+ and local communities is the use of land within TNMB by local communities for agriculture. This is because the Indonesian government strictly prohibits human activities in the national park, and this compromise fulfils both of the original objectives.

CAUSE-RELATED MARKETING

The discussion on cause-related marketing will refer more to innovative ideas related to the forms of activities or marketing of conservation parties to work on sustainable funds for conservation management, not those related to CSR. Knowing this, ideas that can be used for marketing are very varied and have been carried out by several other countries as pilot projects. Unfortunately, the marketing carried out by the Indonesian conservation side does not yet seem as unique as what other countries have done. An example of the unique marketing in question is the Venezuelan organization that gets funding from the premiere of “Batman”. Although it is not uncommon, it does not mean that conservation in Indonesia does not carry out marketing. One example of marketing to increase fundraising is the National Park Festival and the Indonesian Nature Tourism Park (FTNTWA) that

http://ppid.menlhk.go.id/siaran_pers/browse/704
seeks to inform widely about conservation tourism in Indonesia, which is expected to increase the interest of ecotourism from local and foreign communities. The festival is held to help the growth of the selected national park tourism sector, including Bromo-Tengger-Semeru, Wakatobi, Morotai, and Tanjung Kelayang.\textsuperscript{81}

The next example is the Salak Halimun Salak Tree Adoption Program. This program is more focused on raising funds for regional management, which at the same time, also increases ecotourism. The program is a fund donation mechanism aimed at the rehabilitation and restoration of the damaged Halimun Salak area. This program involves the community to take part in planting and maintaining it, which encourages public attention to environmental conditions.

In its implementation, the program initiated a collaboration with the Gede Pahala Consortium, Gunung Halimun Salak National Park, Gunung Gede Pangrango National Park, and Conservation Indonesia. Not only that, the adopters involved in this program consist of companies that support environmental conservation, such as PT. AIA, PT. Grace, PT. Crawford and Yamaha Green United.

Then discussing the technical steps in this program, there is a number of steps involved in carrying out “adoption” of trees, including\textsuperscript{82}:

This mechanism can be considered as a mixed mechanism between cause-related marketing, PPP, and community participation, which combines cooperation between conservation parties and private companies as adopters and is followed by the involvement of local communities living around conservation areas to plant adopted trees and get alternative income.

\begin{itemize}
  \item 20% of the donation is allocated for planting seeds, and the community is obliged to plant mandatory trees and restoration trees.
  \item 40% of donations will be channelled to help alternative income for the community.
  \item 30% to assist in routine maintenance by officers.
  \item 5% is used for reporting and mapping
  \item 5% and the last 5% is channelled to be managed by the Gede Pahala Society.
\end{itemize}

\textsuperscript{81} https://halimunsalak.org/program-adopsi-pohon-halimun-salak/
\textsuperscript{82} https://fiskal.kemenkeu.go.id/dw-konten-view.asp?id=20090721115454

\textbf{Suggestions on Funding Mechanism}
COMPENSATION PAYMENTS (TAXES, LEVIES, SURCHARGES, AND FINES)

Compensation payment is a form of government holding the private sector accountable for an impact they have on the environment. They become one of the ways for the income of conservation parties because of the fines they give for damage or pollution to the environment. One form of the compensation payment intended to be implemented in Indonesia is the green tax, but it has experienced several obstacles that have made it not yet applicable.

Environmental tax, similar to general tax function, has functions such as budgeting, regulatory, stability, and equity. In its planning, this environmental tax has two mechanisms — first, the enactment of environmental taxes and the provision of tax credits. Environmental tax in its implementation is that companies that aggravate environmental conditions will be imposed a mandatory levy, which of course, reaps many disapprovals from entrepreneurs because of the additional expenses to be incurred. Second, by giving tax credit or often referred to as Green Incentive - people are given a tax credit for environmentally friendly goods, so their habit changes and more willing to buy environmentally friendly products.

However, the rejection of the environmental tax program is not solely based on rejection from the employer because they have to pay more operating costs. The refusal is also due to the lack of clarity referred to by the government. Environmental taxes should be a source of revenue channelled to improve the environment, not one of the revenues for local governments.

Besides the lack of explanation on the environmental tax program, it is unfortunate that the Indonesian government is not taking firm action against companies that have polluted the environment. This can be seen from three companies that have damaged the ecosystem, one of which carried out clear felling of the rainforest in Gunung Leuser National Park in 2016. PT. Merbau Pelalawan Lestari (MPL) was convicted of illegal logging covering an area of 5,590 hectares of forest on the east coast of Sumatra. Because of that, MPL is fined IDR 16 trillion. However, after the Supreme Court ruling, until 2017, the Ministry of Environment and Forestry was still unable to collect the IDR 16 trillion fine. According to local media, MPL lawyers will submit a review of the case because it has brought new evidence. Cases like this are not only happening in Gunung Leuser but also recently in Riau related to forest fires.

Based on an analysis by Greenpeace from government data on forest and land fires (land and forest fires) from 2012-2018, there were 11 civil cases, one of which was also PT. MPL. However, to date, there have been no cases of forest and land fires that have paid compensation for violations they have committed. The total fines to be paid by the eleven companies reached IDR 18.9 trillion, which, if paid, could be allocated for the process of rehabilitation and management of nature conservation. Therefore, formulating an environmental tax is not sufficient — the need for decisiveness from the government in law enforcement regarding environmental pollution is also required.

---

83 http://lipi.go.id/berita/pajak-untuk-peningkatan-perbaikan-lingkungan/4664
CHAPTER 3

Proposed Mechanisms for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve
3.1 Institutional Framework Options

Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Management

By design, there is no single model for running biosphere reserves, but there are two common underlying principles: (i) the management system of a biosphere reserve needs to be open, not closed, to community concerns; and (ii) it needs to be adaptable to changes in local circumstances.  

Biosphere reserves are places where all stakeholders (area’s land-managing agencies, local governments, communities, private, etc.) can work in harmony to protect biodiversity while conducting sustainable development supported by science (See BOX 4).

BOX 4 How to collaborate

One Design Multiple Management

1. Establish the so-called One Design Multiple Management
   - One Design means a scientific-based landscape design for the entire biosphere reserve area, which must refer to the jurisdictional approach due to the already existing ‘infrastructure’ such as regulations, funding, resources, etc.
     - If you don’t have the same design, then you can collide. For example, the national park management states that the core zone is located here and must be fully protected, but in fact, the designation coexists with large oil palm plantations. In landscape design, it doesn’t make sense.
     - It is a book where all the DOs and the DONTs are there. It explains why some areas can be developed, and some can’t so it must be fully understood.
2. Determine the role of each stakeholder based on strengths, preferences, work fields, and mandates.
3. Good governance must consist of transparency, accountability, participation, and responsibility.
   - No party is more dominant than the others when managing a CB since managing CB is an extraordinary democratic process carried out by many parties, considering the vast biodiversity that exists.
4. The role of the Facilitator and Catalyst is essential.
5. The government holds the most significant leadership role, in this case, the Kapuas Hulu District Government.

Source: Interview with TNC, 2019

Each biosphere reserve is allowed to have its governance system to ensure that it meets its functions and objectives. Setting up a committee or forum to coordinate all biosphere reserve’s activities are standard practices. Yet, such practices should be adjusted with the local wisdom.

A biosphere reserve is required to have a function to integrate and coordinate the efforts of all stakeholders without forgetting the historical rights of land ownership or resource to synergize its management. In Indonesia, there are already various regional authorities in biosphere reserves. As explained earlier, the core area is the authority of the Ministry of Environment and Forestry (central government), the buffer area is the authority of the provincial forestry services (provincial government), while the transition area is the responsibility of the district government. Therefore, biosphere reserve management institutions generally take the form of a Biosphere Reserve Management Coordination Forum consisting of multi-stakeholders and led by local governments.

87 Buku Pedoman Pengelolaan Cagar Biosfer Indonesia, 2017
88 Interview with Komite Nasional MAB Indonesia

Suggestions on Funding Mechanism
Institutional management of a biosphere reserve is needed so that all activities can be well organized and integrated. Therefore, the formation of institutional management is one of the instruments in the development of a biosphere reserve. In detail, the roles of institutional management of biosphere reserves are as follows:

- As a set of tools to achieve the objectives of applying the concept of biosphere reserves.
- Manage the three zones (the core area, buffer zone, and transition area).
- Serve three functions of Biosphere Reserves, i.e., conservation, sustainable development, and logistical support, and integrate development and conservation activities.
- Integration of multi-stakeholders.

The proposed organizational structure listed for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve in the nomination dossier is as follows (MAB National Committee Indonesia, 2017):

**Board:**
- Head of Kapuas Hulu District
- Deputy of Life Sciences – LIPI as Chairman of the Indonesian MAB Programme National Committee
- Director General of Natural Resources Conservation and Ecosystem (KSDAE), Ministry of Environment and Forestry
- Head of Adat (Ketua Lembaga Adat Masyarakat Kapuas Hulu)
- Head of Forestry Services of West Kalimantan Province

**Chairman:** Head of Development Planning Agency of Kapuas Hulu District

**Vice Chairman:** Director of Betung Kerihun – Danau Sentarum National Park

**Secretary:** Deputy Director of Betung Kerihun – Danau Sentarum National Park

**Vice Secretary:** Deputy Head of Development Planning Agency of Kapuas Hulu District

**Members:**
1. Head of Agriculture (Food-plant) Services of Kapuas Hulu Regency
2. Head of Fishery of Kapuas Hulu Regency
3. Head of Environment Agency of Kapuas Hulu Regency
4. Head of Animal Husbandry Services of Kapuas Hulu Regency
5. Director Executive of the Indonesian MAB Program National Committee, LIPI
6. Director of Conservation Area, Directorate General of Natural Resources Conservation and Ecosystem (KSDAE)

Buku Pedoman Pengelolaan Cagar Biosfer Indonesia, 2017
Unfortunately, a coordination forum generally does not have a command line - no party has the authority to govern the other party. There are already ten forums in Kapuas Hulu District for various issues and is voluntary, but those that function well and correctly don’t yet exist.  

The proposed solution, if the management organization is a forum, is that there must be an Executive Board (preferably professionals who are paid by the Forum) to take care of daily administrative matters. All members of the Forum will only be think tanks. The operationalization of the Forum must be ensured, for example a systematic work program with the right timeline, to answer the question of what it wants to manage over the next few years. A clear roadmap is critical to the level of the action plan. What is the X year objective for biosphere reserve? Who does what? How much money is needed to achieve that goal?  

Another disadvantage of a coordination forum is that it cannot receive funds, so it is necessary to consider whether a separate entity needs to be established to be the recipient of funds. The financing mechanism can be carried out by creating a new or appointing one institution (CBO or company) as a representative of the Forum to accommodate those who want to contribute -> one-gate policy. For example, in North Kayong, there is a forum for the Essential Ecosystem Area (EEA). The forests are in Area for Other Uses (APL by Local Government), slightly in line with production forests (Provincial Forestry Office), and the goal is a corridor to a protected forest with a national park Gunung Palung. They appointed one local CSO as the recipient organization for the EEA.  

90 Interview with Hermas (WWF Kapuas Hulu), 2019  
91 Interview with Aris Wanjaya (IDH), 2019
Below are options of the receiving fund institutions for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve:

A. TRUST FUND

Trust fund is an estate planning tool that is legally established to hold property or assets for a person or organization, managed by a trustee, who is a neutral third party. Trust funds can hold a variety of assets such as money, property, stock, a business, or a combination of many different properties or assets. The concept of a trust fund has three essential elements, namely (i) the party that owns the asset is called Settlor, (ii) the party trusted by Settlor to hold and manage the asset called the Trustee, and (iii) the party who will receive the benefits of the asset ownership transfer process and referred to as Beneficiary.

Trust funds can be structured financially in three ways. Creating an endowment allows capital to be invested; only income from those investments is used to finance activities. Sinking funds disburse their entire principal and investment income over a fixed period of time, usually a relatively long period, e.g., 15 years. Revolving funds provide for the receipt of new resources on a regular basis—e.g., proceeds of special taxes designated to pay for conservation programs—which can replenish or augment the original capital of the fund and provide a continuing source of money for specific activities. Any particular fund can combine these features as part of its mix of resources (Norris et al., 1999).

One of the most fundamental issues, why the concept of trust funds cannot work in Indonesia, is because (i) Indonesia adheres to the Civil Law system, whereas trust funds (dual ownership) are formed in countries that adhere to the Common Law system, and (ii) there is no Trust Law yet in Indonesia. The application of dual ownership means that ownership of assets has shifted from Settlor to Trustee, but Settlor still has the authority to monitor its use based on trust agreements. Trustees receive legal ownership rights based on trust agreements from Settlor but are obliged to act for the benefit of the Beneficiary.

Also, Indonesia does not yet have a Trust Fund Law, even though the Government said it had adopted it in the form of Presidential Regulation No. 80 of 2011 concerning Trust Funds. Some issues that are considered to conflict with the concept of trust funds internationally are evident in the following articles:

- **Article 1 paragraph 1**
  - Government Grants, hereinafter referred to as Grants, are any state revenues in the form of foreign exchange, foreign exchange, rupiah, goods, services, and/or securities obtained from the Grant Providers that do not need to be repaid, originating from domestic or abroad.

- **Article 1 paragraph 2**
  - Trust Funds as Grant funds provided by one or several Grant Providers, which are managed by an institution as trustees for specific use purposes.

- **Article 1 paragraph 4**
  - Grant Providers are parties who come from within or outside the country that provides grants to the Government.

---

92 Norris, Ruth & Curtis, Randy, 1999
The definition of the Trust Fund listed in Presidential Regulation No. 80/2011 does not reflect the concept of a trust fund that is internationally recognized because it adopts the concept of grants and only be carried out to the government. See ANNEX E – the Indonesia Climate Change Trust Fund (ICCTF) as “the only national trust fund dedicated to climate finance in Indonesia equipped with a governmental mandate.”

KEHATI explained that for the two programs where they act as the administrators of the trust fund (Tropical Forest Conservation Act and Blue Abadi Trust Fund), the appointed trustees and fund managers were in Singapore. If the form of the trust fund is an endowment fund, usually it will require one more party in charge of investing the funds so that the results can be used in accordance with the needs of the formation of the trust fund (See BOX 5).

**BOX 5 Blue Abadi Trust Fund**

_**Blue Abadi Trust Fund (BATF)**_

The Fund is uniquely designed to support local community stewardship of the protected areas of the world’s most biodiverse reefs, Indonesia’s Bird’s Head Seascape in West Papua, which includes 12 Marine Protected Areas (MPAs) covering 3.6 million hectares. The expected number of endowment funds is USD 40 million, although currently only reaches USD 23 million, excluding sinking funds worth USD 5 million.

KEHATI has been the administrator of BATF since 2017. After 12 years previously, Bird’s Head Seascape was directly supported by 30 partner organizations - including Conservation International, The Nature Conservancy, and the World Wildlife Fund - and 70 donors, both local and global. The purpose of BATF is to cover the financing gap from other sources such as the Indonesian government, visitor fees, and local partners.

---

55 ICCTF Website

*Suggestions on Funding Mechanism*
An Unprecedented Partnership

12 years
30 partners
70 donors
$65M invested

Covering 12 MPAs
3.6M hectare
20-30% no take

BIRD’S HEAD SEASCAPE

TFCA AND BATF STRUCTURES

DONORS

Governance/organizing Comitee

TFCA & BATF

Advisory Committee:
1. Science and Conservation
2. Investment
3. Local Representative

Administrator (KEHATI)

Grantee

Grantee

Grantee

Grantee

Grantee

TRUSTEE

FUND MANAGER

in Singapore

Source: Interview with KEHATI
Governance Committee (GC) will make decisions on fund structure and fund disbursements. GC is comprised of 9 volunteer members with donor, NGO and local representatives.

Fund legally established as a Singapore Trust with Vistra Singapore as Trustee. Funds invested by professional investment manager.

Blue Abadi Trust Fund Flow

Funds flow to KEHATI (Administrator)

Annual Seascape Costs
7.7M total; 6.7M for local institutions

$1.9M
$1M
$4.8M

$4.8M for MPA Authorities
$1M for International NGOs
$1.9M for Local Partners

Source: Interview with KEHATI
Governance Committee/GC will make decisions on fund structure and fund disbursements. GC is comprised of 9 volunteer members with donor, NGO and local representatives.

Funds legally established as a Singapore Trust with Vistra Singapore as Trustee. Funds invested by professional investment manager. Funds flow to KEHATI (Administrator).

KEHATI will distribute funds to approved local institutions in Papua based on decision of Governance Board within predetermined parameters. KEHATI to manage professional and periodic reviews of fund recipients.

Projected Annual Funding Sources
$6.7M for local institutions
(International NGOs to cover costs separately)

$3.1M for Government Allocations
$1.4M for Visitor Fees
$1.4M for Trust Fund Distributions
$0.8M for Local Partners

for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve
B. FOUNDATION

Foundations are legal entities consisting of assets separated and destined for the achievement of specific objectives in the social, religious, and humanitarian fields, and have no members. The definition of the foundations refers to Law No. 16 of 2001 concerning Foundations, which was amended by Law No. 28 of 2004, and Government Regulation No. 63 of 2008 on the Implementation of Laws on Foundation and Government Regulation No. 2 of 2013 on Amendments to Government Regulation No. 63 of 2008 on the Implementation of the Law on Foundations. Privat Law (2016) explains the changes related to the Foundation with the enactment of Law No. 28 of 2004:

### TABLE 5 Changes of the foundation regulations

<table>
<thead>
<tr>
<th>No.</th>
<th>BEFORE</th>
<th>AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establishing a foundation does not need government approval</td>
<td>Establishment of the foundation needs to be endorsed by the government</td>
</tr>
<tr>
<td>2</td>
<td>There has been no endorsement from the Minister of Justice</td>
<td>There is an endorsement from the Minister of Justice</td>
</tr>
<tr>
<td>3</td>
<td>Foundation organs are allowed to hold concurrent positions</td>
<td>Foundation organs may not hold concurrent positions</td>
</tr>
<tr>
<td>4</td>
<td>There is no limit to the length of service of the foundation’s organs</td>
<td>There are restrictions on the length of service of the foundation’s organs</td>
</tr>
<tr>
<td>5</td>
<td>Foundation names are permitted the same</td>
<td>The name of the foundation cannot be the same</td>
</tr>
<tr>
<td>6</td>
<td>The foundation cannot be bankrupt</td>
<td>The foundation can be bankrupt</td>
</tr>
</tbody>
</table>


If this option is chosen, then a foundation needs to be established by the Collaborative Management of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve as an institution that will receive and manage funding from various parties for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve. The structure of the Collaborative Management using Foundation is as follows:

![FIGURE 13 Foundations as the receiving fund institution and administrator](Image)

Source: Pradana 2019

See ANNEX D - How to Set Up Foundations in Indonesia.

---

94 The above definition needs to be distinguished because there are other definitions of foundations as listed in Article 2 of Law No. 17 of 2003, where foundations within the Line Ministries are included in the scope of state finances.
C. ENVIRONMENTAL FUND MANAGEMENT AGENCY
(BADAN PENGELOLA DANA LINGKUNGAN HIDUP – BPDLH)

BPDLH is an agency with a BLU financial management scheme under the Ministry of Finance established by the Government of Indonesia to control and deal with climate change (it was inaugurated in October 2019). The agency is regulated through Finance Minister Regulation PMK No.137/PMK.01/2019, which is the mandate of Government Regulation No. 46/2017 concerning Environmental Economic Instruments and Presidential Regulation No. 77/2018 concerning Management of Environmental Funds.

BPDLH not only manages funds but also contributes by being the executor of activities that intersect with environmental preservation. In addition, the BPDLH will also carry out the financing function so that the funds managed can be invested in profitable instruments so that the management funds can grow and meet the needs of environmental program funds in the future. Under Presidential Regulation No. 77/2018, BPDLH has the duty to collect, cultivate, and channel funds, including the Fund for the Management of Pollution and/or Environmental Damage and Environmental Restoration, as well as Trust Funds/Conservation issues.

In carrying out its duties, the agency has five functions:\n
1. Carry out the preparation of a strategic plan, i.e., business strategic plans, annual business plans, and budgets, as well as work plans and work unit budgets.\n   - Managing the budget, accounting, and doing financial reporting.\n   - Managing the technical information system and the Environmental Fund database and coordinating the implementation of tasks.\n   - Dealing with human resource management, public affairs, housekeeping, public relations, and information services.

2. Arrange, implement, supervise, and report related to funding. The agency also mobilizes funding sources, develops investments, and settles the Environmental Fund. In this function, the agency must also establish cooperation with funding sources such as custodian banks, commercial banks, and other parties.

3. Formulate and implement a fund distribution plan. This includes determining the object for channelling funds, supervising and evaluating the distribution of funds, and providing guidance to recipients of funds. It also functions to convey accountability through the delivery of the results of the analysis to the ministries or institutions, custodian banks, commercial banks, and other related parties.

4. Study the legal aspects of rules and agreements and those relating to laws and regulations. In this case, they are also required to document all legal texts, regulations, and agreements, and carry out risk management.

5. Conduct an internal inspection of the implementation of the tasks of the agency.

BPDLH is formed to become a single unit of managing funds for forest and environmental damage with sources of funds can come from domestic and foreign sources. Government of Indonesia (GoI) will inject funds to BPDLH every year. For the initial stage, BPDLH will receive a transfer of funds IDR 4 trillion in 2020.\n
Local Budget (APBD) can be put/deposited to be managed and invested through BPDLH in financing several sectors that are indeed BPDLH’s mandate, including the environment, forestry, mineral resources, marine and fisheries, industry, etc.\n
If this option is selected, the BPDLH will function as the receiving funds institution (Trustee) and Fund Manager but the Collaborative Management of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve must also form a new entity or appoint an existing entity as the Administrator for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Fund.

---

95 https://theinsiderstories.com/indonesia-forms-environmental-fund-management-body/
96 https://nasional.kontan.co.id/news/badan-khusus-pengelola-dana-lingkungan-hidup-punya-modal-awal-rp-4-triliun
97 Interview with Joko Tri Haryanto (PKPPIM), 2019

for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve
Proposed Mechanisms for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve

Suggestions on Funding Mechanism

FIGURE 14 BPDLH as the trustee and fund manager

FIGURE 15 Badan Pengelola Dana Lingkungan Hidup (BPDLH)

Source: Modified from Media Indonesia, 2019

https://mediaindonesia.com/read/detail/264471-pengelola-dana-lingkungan-hidup-dibentuk

Source: Pradana, 2019
3.2 Proposed Funding Mechanism

Biosphere reserves, in theory, are attractive but particularly challenging to implement in the real world. It is even more complicated, in most countries, by the rigid legal instruments for the planning of nature protection and land use. Thus, to put the biosphere reserve in practice needs vision, insight, perseverance, and willingness to bring together different backgrounds and stakeholders to agree on how a given area will be handled. The three biosphere reserve functions can be implemented only through involving and mobilizing all the structures and stakeholders concerned. “This requires method, rigor, and a strong will at the local level” (Bioret et al., 1998).

INPUTS FROM RESOURCE PERSONS

Before concluding proposing the most appropriate funding mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve, here are some important points raised by interviewees to consider:

- One Design Multiple Management is a crucial requirement to achieve targets of a biosphere reserve because one cannot stop development, but on the other hand, it is necessary to protect biodiversity.
- The use of science in supporting the protection of biodiversity and sustainable development is crucial.
- The role of each stakeholder based on strengths, preferences, work fields, and mandates must be determined.

- A separate entity needs to be established to receive and manage the funds.
- Coordination Forum must be able to conduct fundraising, create a business case/model to increase the interest of private sectors in contributing to the area.

- Ongoing efforts to improve the understanding of many parties involved in the issue of biosphere reserve is a must because being a biosphere reserve is voluntary (not mandatory).
- Provide assistance to the community to become more bankable due to lack of access to banking system and services.
- The biggest challenge to form the management of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve is because some stakeholders do not yet have the knowledge, Biosphere Reserve is seen as a burden, not as a potential for welfare improvement.
- The mechanism to propose biosphere reserves must be modified by applying the bottom-up method. First, socialization must be conducted, so more people are interested in getting involved, then start the nomination process.

- Government must have a clear and clean regulations related to the management of carbon delivery produced from an area.
- Collaborative Management needs to work with BAPPENAS on the issue of Low Carbon Development so programs can be directed to the Regency of Kapauas Hulu, but local government must show strong commitment.

- The Ministry of Finance is to encourage ecology-based budget transfer schemes so that regional government (provincial and regency) has higher probability to receive more incentives due to the vast land cover in their area.
• Do not forget other funding sources, such as BAZNAS which also have large funds.
• Before the private sector can really get involved, a sweetener in the early stage to become a guarantor can be very beneficial.

• Conduct mapping of private sectors in that region and determine the sustainability main drivers, for example, price, market, etc.
• Any local organization with previous international exposure/experience would be more desirable to work with.
• A strong sponsor will relatively make the transaction easier.
• Need enabling conditions, for instance, state guarantee.

• Collaborative management must be established immediately to be the recipient institution.
• Optimize the use of Social Forestry schemes.

• There is no Trust Fund Law in Indonesia.
• Define clearly the purpose of trust fund, e.g., is it only to fill the gap of the existing funding.
• Private sector’s contribution is still small since the expenses cannot reduce company’s income tax.

• It may be better to establish a BLUD at the district level to increase the local government revenue, on ecotourism issue for example.

• Need to optimize utilization of NTFPs (non-timber forest products).
• Need to develop national monitoring tools for the buffer and transition zones.

• The Public Private Partnership (PPP) concept can actually be carried out on environmental issues but still requires government intervention considering this idea has never been done before.
• Capitalize on all statuses owned by the Kapuas Hulu District, for example the use of the biosphere reserve branding/logo on each product produced from the area.

• No Donor/NGOs will last forever in a location, only a maximum of up to five years, even though the organization will still be there for up to 10 years.
• Take advantage of the presence of NGOs towards strengthening the Coordination Forum of BKDSKH Biosphere Reserve and/or local CBOs as enabling conditions, as well as an exit clause.
• Kapuas Hulu Regency needs to optimize the sources of Local Revenue (PAD) outside the motor vehicle tax, parking fees, PBB, and excavation C (sandstone excavation). Other sources of PAD are the arwana pond or swallow nest levies, and other levies related to businesses (restaurants, hotels). To have alternative sources of income is important because no NGOs will stay in a location for too long.
PROPOSED INSTITUTIONAL FRAMEWORK

Taking into account all the information above, the proposed institutional framework is:

**FIGURE 16 Proposed Funding Mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve**

- **Donors**
  - State Budget (APBN)
  - Local Budget (APBD)
  - Donor Budgets
  - Private Voluntary Donations

- **BKDSKH Biosphere Reserve Fund**

- **Coordination Forum as the Governance Committee**

- **Scientific Assembly**

- **Administrator**

- **Grantees**

- **BPDLH Trustee & Fund Manager**

Source: Pradana, 2019

THE RATIONALE FOR THE ABOVE PROPOSAL IS:

- Since UNESCO just recognized Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve in 2018 and the Coordination Forum is not yet established (currently under discussion by and between related parties), the focus in this early stage should be on getting external sources of funds which are relatively more accessible than to start, for example, encouraging activities that will generate funding from within or the use of market-based instruments.

- The Government of Indonesia has set BPDLH as the institution that controls and deals with all climate change issues. Since biosphere reserve also relates to climate change issue, no need to form another receiving fund institution.
  - The organizational structure mentioned in the nomination dossier put trust fund as one of funding mechanisms. If BPDLH can act as the trustee and fund manager at the same time, without having to refer to the not internationally recognized concept of trust fund stipulated in the Presidential Regulation Number 80/2011, then BPDLH is the most suitable choice for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve.

- There must be a separation between the Administrator and the Governance Committee.
  - The Coordination Forum mentioned in the nomination dossier is too big. It should be similar to the Governance Committee of a trust fund (not a large organization consisting of too many people). Take the example of the Governance Committee of the Blue Abadi Trust Fund, which consists of less than ten people but with qualifications mentioned in the Requirements section.
  - As for the Administrator, assigning staff from relevant institutions as administrators that made them work more without any additional incentives/reward is not a practical option considering that they already have primary tasks that are quite time-consuming. The Administrator should comprise of people with criteria stated in the Requirement section to run daily operations.

- As for the Scientific Assembly, the three division names can be the categories within the assembly. Parties initially included in Division 1 - 3 in the nomination document may become members of the Scientific Assembly, not necessarily everyone but with specifications explained in the Requirement section. These people may provide guidance and oversight but not get involved in the daily operations.
REQUIREMENTS

1. Determine the criteria for members of the Governance Committee.
   • A group of people from different backgrounds (District Government, National Park Management, Forest Management Unit, private sector, NGOs, people’s assembly, etc.) with political power, capacity to make decisions and fund-raising.

2. Determine the requirements for members of the Scientific Assembly.
   • Experts with capacity to apply the One Design Multiple Management for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve to protect its biodiversity while developing the area based on scientific analysis and creation of business models for its sustainable financing mechanism – if needed, can hire third-party services (consultant).
   • Another tools worth mentioning here is the Strategic Environmental Assessment (SEA). OECD (2006) defines SEA as “analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter linkages with economic and social considerations. SEA can be described as a family of approaches which use a variety of tools, rather than a single, fixed and prescriptive approach.”

3. Sign an MoU with BPDLH to create an account for the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Fund. This needs to be determined later since BPDLH is not operational yet (will start in January 2020).
   • BPDLH creates accounts for every fund managed. Thus, the Coordination Forum (Governance Committee) must be able to negotiate to ‘have’ an account for the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Fund in BPDLH by showing its potential even though the fund is not available yet – assuming there is a threshold for creating an account in BPDLH.99

4. Decide whether to establish a new separate entity as the Administrator or appoint an existing CBO to become one.
   • The new or appointed CBO as the Administrator will later be, for some time, e.g. two years, collaborating with institutions that have experience as administrators to strengthen the capacity of local organizations and the potential of the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve. It needs to be a top priority as an exit clause when donors/development partners no longer operate there. After that, the Administrator must be able to work by itself without any facilitation/assistance from other institutions.
   • The Administrator will consist of paid/salaried professionals (not from the institute personnel of each regional authority).

99 Interview results with resource persons from Ministry of Finance.
PROPOSED MECHANISMS

The following proposed mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve will be divided into 2 phases, namely (i) Short-term and (ii) Long-Term. The proposed short-term mechanism puts more emphasis on what has been considered the main problems that must be solved immediately, while the long-term mechanism is more directed at what activities should be prioritized to achieve the biosphere reserve objectives, namely conservation, sustainable development, and logistic support.

### TABLE 6 Proposed mechanisms for short-term activities

<table>
<thead>
<tr>
<th>Short-Term Activities</th>
<th>Proposed Mechanisms</th>
</tr>
</thead>
</table>
| 1. Establish the Governance Committee and Scientific Assembly of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve. | • Government Appropriations (State and Local Budget)  
• Private Voluntary Donations  
• Donor Budget  
• NGO Grants |
| 2. Set up a new institution or appoint existing CBO to become Administrator of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Fund. | • Government Appropriations (State and Local Budget)  
• Private Voluntary Donations  
• Donor Budget  
• NGO Grants |
| ▶ Increase the Administrator’s capacity by working together with experienced administrator for a short period of time, e.g. 2 years. | • Government Appropriations (State and Local Budget)  
• Donor Budget  
• NGO Grant |
| 3. Develop the One Design Multiple Management, including: | • Donor Budget  
• NGO Grants |
| ▶ Stakeholder capacity building to increase awareness and understanding of biosphere reserve. | • Donor Budget  
• NGO Grants |
| ▶ Monitoring tools for the Buffer Zone and Transition Area. | • Government Appropriations (State and Local Budget)  
• Donor Budget  
• NGO Grants |
| ▶ Conduct mapping of private sector and determine the main sustainability drivers. | • Donor Budget  
• NGO Grants |
| ▶ Conduct study on BLUD at the district level to increase the local government revenue. | • Donor Budget  
• NGO Grants |
| ▶ Increase the potential of Non-Timber Forest Products. | • Donor Budget  
• NGO Grants  
• Private Voluntary Donations |
| ▶ Capitalize on all statuses of Kapuas Hulu District, e.g. use logo of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve on approved products from the area | • Government Appropriations (State and Local Budget)  
• Private Voluntary Donations |
| ▶ Development of the tourism sector towards specific interest tourism (non-mass tourism). | • Revenue from Tourism and Recreation  
• Compensation Payments |
| ▶ Optimize the Social Forestry scheme. | • Government Appropriations (State and Local Budget)  
• Donor Budget  
• NGO Grants |

Source: Pradana, 2019
### TABLE 7 Proposed mechanisms for long-term activities

<table>
<thead>
<tr>
<th>No</th>
<th>Long-Term Activities</th>
<th>Proposed Mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>A. CONSERVATION</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conservation of ecosystem functions as a habitat for protected/endangered wildlife species:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Ecosystem restoration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Ecosystem protection/area safeguards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Ecosystem monitoring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Socialization and dissemination of regulations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government appropriations (state and local budget)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Environmental (conservation) Trust Fund</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Debt-for-Nature Swaps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cause-Related Marketing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Population Enhancement of Endemic/Important/Protected Flora and Fauna Species:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Population monitoring of endemic/important/protected flora and fauna species</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Habitat management for endemic/important/protected flora and fauna species</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Re-introduction of endangered/protected species</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Protection of endemic/important/protected flora and fauna species</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government appropriations (state and local budget)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Donor budget</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NGO grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bioprospecting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Environmental (conservation) Trust Fund</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cause-Related Marketing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Forest Fire and Other Natural Disaster Management:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Improvement of Forest Fire Collaborative Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Fostering Community-Based Forest Fire Prevention (Masyarakat Peduli Api/MPA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government appropriations (state and local budget)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Donor budget</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NGO grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bioprospecting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Benefit/revenue sharing</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td><strong>B. SUSTAINABLE DEVELOPMENT</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strengthening local community empowerment and participation:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Strengthening community institutions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Collaboration on the utilization of the areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government appropriations (state and local budget)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Donor budget</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NGO grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bioprospecting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Benefit/revenue sharing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Sustainable Use of Biodiversity and Ecosystem Services:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Alternative Economic Development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Development of Village-Based Tourism</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bioprospecting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Payments for Ecosystem Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Resource use fees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Zakat, infaq, shadaqah, waqf (Ziswaf)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Revenue from tourism and recreation</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td><strong>C. LOGISTIC SUPPORT</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Activities for Conservation of Ecosystem and Sustainable Development:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Survey/Inventory of Endemic/Important/Protected Flora and Fauna Species</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Inventory of Ecosystem Potency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Ecosystem Assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Inventory of Social, Cultural, and Economic Conditions of Local Community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Inventory of Potency and Existing Areas Utilized by Community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f. Assessment of Area Utilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>g. Integrated Research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>h. Development of Research Station</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Government appropriations (state and local budget)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Donor budget</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• NGO grants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bioprospecting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• CSR spending</td>
<td></td>
</tr>
</tbody>
</table>
### C. LOGISTIC SUPPORT

2. **Database Management:**
   - a. Development of database system
   - b. Development of information system
   - c. Database and information management

   - Government appropriations (state and local budget)
   - Donor budget
   - NGO grants
   - Bioprospecting
   - Conservation bonds

3. **Conservation and Environmental Education:**
   - a. Environmental Education and Public Awareness

   - Government appropriations (state and local budget)
   - Donor budget
   - NGO grants
   - CSR spending
   - Community participation

4. **Strengthening institutional management:**
   - a. Establishment of standard operating procedures of area management
   - b. Strengthening and improvement of management plan of the core area
   - c. Development and maintenance of infrastructure and facility
   - d. Capacity building of human resources of biosphere reserve institution
   - e. Strengthening coordination and communication of stakeholders
   - f. Cooperation on the national strategic interests
   - g. Promotion and information dissemination

   - Government appropriations (state and local budget)
   - Donor budget
   - NGO grants
   - Private voluntary donations
   - Community participation
   - Conservation bonds

### D. MONITORING AND EVALUATION

1. **Management:**
   - a. Internal Monitoring and Evaluation
   - b. External Monitoring and Evaluation

   - Government appropriations (state and local budget)
   - Donor budget
   - NGO grants

2. **Program:**
   - a. Conservation program
   - b. Sustainable development program
   - c. Logistic support

   - Government appropriations (state and local budget)
   - Donor budget
   - NGO grants

3. **Reporting:**
   - a. Annual report
   - b. Final report

   - Government appropriations (state and local budget)

Source: Pradana, 2019, modified from Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Management Plan
CHAPTER 4

Conclusion and Recommendations
4.1 Conclusion

Funding biosphere reserves is a big challenge. Understanding the availability of different fund-generating mechanisms and instruments is required to be applied for each given area. In deciding on the most suitable funding mechanism for Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve, all stakeholders must realize that it is not merely about ‘how to get the money/funding’ but also provide information which are the most appropriate sources for short, medium, and long-term needs.

a. Legal and institutional backups.

To be able to get funding from any sources, first, the institutional framework, backed by regulation, is mandatory – the Coordination Forum (including the Scientific Assembly) must be there, the Administrator and its 2-year ‘escort’ must have been formed or appointed, and the BPDLH must be operational. An institutional framework will provide the necessary support to engage communities, NGOs, and the private sector, enabling them to reach enforceable agreements. When the institutional framework is set, the One Design Multiple Management and business models for different sources of funds, can be created.

b. Communities as the most reliable partners.

Who knows better than the communities about their environment? If no one else, then the communities’ ownership in a biosphere reserve is of major requirements to the success rate of a development by design. Communities must be able to be transformed into the most reliable partners of conservation programs. Therefore, public consultation and awareness raising is a must.

c. Clear objectives.

To be able to transform communities into the most reliable partners, biosphere reserves must have objectives that are clear, easy to follow, transparent, and in the near term. The more people understand and get involved, the higher the rate of success.

Biosphere reserves raise complicated issues, financial resources are essential yet insufficient, and yes, education takes time. So, we should not anticipate straightforward solutions to the challenges posed by biosphere reserves.
4.2 Recommendations

In order to successfully implement the proposed funding mechanisms, the following is mandatory:

1. Establish the Collaborative Management (Coordination Forum) of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve stipulated in a decree of the regency government.

2. Prepare Integrated Management Plan and Action Plans carried out by all relevant parties in order to protect biodiversity and implement sustainable development based on science (Development by Design) -> for this, if necessary, collaborate with Donors/Development Partners so that the preparation of Integrated Management Plan and Action Plans is indeed properly carried out based on science related to the potential of Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve.

3. Sign an agreement or MoU with BPDLH to be the trustee and fund manager for the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Fund.
   - In principle, BPDLH can receive and accommodate funds from anywhere as long as it is related to environmental management. The Coordination Forum is advised to contact BPDLH directly to inquire about the procedure for having a collaboration (signing an MoU) with BPDLH.
   - Currently, BPDLH had started communication with several donors, including GCF, to be able to receive funds in Semester 1 of 2020. Therefore, BPDLH is prepared to be operational in 2020.

4. If the signing with BPDLH cannot be done in the near future, the next option is:
   - The Coordination Forum, assumed already established and had a legal basis, must first focus on determining who will be the Administrator (whether by forming a new entity or appointing a local CBO).
   - The Administrator will temporarily become the institution receiving funds as well as managing the funds. So, if there are parties ready to contribute to the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve Fund soon, for instance, in Semester 1 of 2020, the Coordination Forum, which cannot receive funds, has no need to be worried.
   - The Coordination Forum, regardless of the institution receiving funds (BPDLH or Administrator), must develop a system for approval of disbursement of funds because the Administrator may not have the authority to issue funds without written consent from the Governance Committee.

5. While the NGOs are still operating in Kapuas Hulu, it is better to strengthen the capacity of local organizations and the potential of the Betung Kerihun Danau Sentarum Kapuas Hulu Biosphere Reserve. It needs to be a top priority as an exit clause when donors/development partners no longer operate there.

6. Having the best mechanism may not ensure that what has been designed can run smoothly. The need for strong government policies becomes so fundamental at the implementation stage.

---

100 Interview result with Mr. Ade Haris (Directorate of Investment Management System, MoF)
References


**Regulations**

1) Law No. 5 of 1990 on Conservation of Living Resources and Their Ecosystems
2) Law No. 16 of 2001 on Foundations
3) Law No. 28 of 2004 on Amendment to Law No. 16 of 2001 on Foundations
4) Law No. 32 of 2009 on Environmental Protection and Management
5) Law No. 23 of 2014 on Local Government
6) Law No. 9 of 2018 on Non-Tax Revenue
7) Law No. 20 of 2019 on The State Budget Fiscal Year 2020
8) Government Regulation No. 23 of 2005 on Financial Management of Public Service Agency
9) Government Regulation No. 63 of 2008 on Implementation of Law on Foundations
10) Government Regulation No. 10 of 2011 on Procedures of Foreign Loans Procurement and Grant Receipt
11) Government Regulation No. 2 of 2012 on Local Grant
12) Government Regulation No. 74 of 2012 on Amendment to Government Regulation No. 23 of 2005 on Financial Management of Public Service Agency
13) Government Regulation No. 12 of 2014 on Type and Tariff of State’s Non-Tax Revenues in the Ministry of Forestry
14) Government Regulation No. 46 of 2017 on Environmental Economic Instruments
15) Finance Minister Regulation PMK No.137/PMK.01/2019 on Environmental Fund Management Agency Organization and Governance

**Interview List**

1) **MAB National Committee Indonesia** (LIPI). Prof. Y. Purwanto and Mr. Hari Nugroho. (October 24 and November 8, 2019)
2) **Tropical Landscape Financing Facility** (ADM Capital). Mr. Bangkit. (November 1, 2019)
3) **Directorate of Conservation Areas, Ministry of Environment and Forestry**. Mr. Hendra and Mr. Ronggo Bayu. (November 4 and 7, 2019)
4) **Betung Kerihun and Danau Sentarum National Parks**. Mr. Arief Mahmud. (November 5, 2019)
5) **Banua Borneo** (NGO). Mr. Edo (former director of KOMPAKH). (November 10, 2019)
6) **Head of Kapuas Hulu Regency Planning Agency**. Mr. A.M. Nasir. (November 11, 2019)
7) **Yayasan People Resources and Conservation Fund**. Mr. Imanul Huda. (November 12, 2019)
8) **Vice Regent of Kapuas Hulu**. Mr. Antonius L. Pamero. (November 12, 2019)
9) **WWF Indonesia**. Mr. Hermas. (November 12, 2019)
10) **PMU TFCA Kalimantan**. Mr. Nandang. (November 12, 2019)
11) **Inisiasi Dagang Hijau** (Sustainable Trade Initiative). Mr. Aris Wanjaya. (November 15, 2019)
12) **Center for Climate Change and Multilateral Policy, Fiscal Policy Agency**, Ministry of Finance. Mr. Joko Tri Haryanto. (November 21, 2019)
13) **The Nature Conservancy**. Mr. Wahjudi Wandojo. (November 21, 2019)
14) **Yayasan KEHATI**. Mr. Indra Gunawan. (November 22, 2019)
15) **Gunung Gede Pangrango National Parks**. Mr. Aden Mahyar and Mr. Ade Bagja. (November 26, 2019)
16) **CIFOR**. Mr. Leon Budi Prasetyo. (November 26, 2019)
17) **Directorate of Investment Management System (MoF)**. Mr. Ade Haris (January 13, 2020)
Annexes

A. INTERGOVERNMENTAL FISCAL TRANSFERS

The Kapuas Hulu District will get fiscal transfers in 2020 (based on APBN Draft) of:

<table>
<thead>
<tr>
<th>Source: DJPK 2019</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Type of Transfer</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Sharing Funds</td>
<td>Rp 23.383.881.000,-</td>
</tr>
<tr>
<td>General Allocation Funds</td>
<td>Rp 1.008.751.663.000,-</td>
</tr>
<tr>
<td>Physical Special Allocation Funds</td>
<td>Rp 184.672.231.000,-</td>
</tr>
<tr>
<td>Non Physical Special Allocation Funds</td>
<td>Rp 134.509.917.000.000,-</td>
</tr>
<tr>
<td>Local Incentive Grants</td>
<td>Rp 11.994.290.000,-</td>
</tr>
<tr>
<td>Village Fund</td>
<td>Rp 274.335.892.000,-</td>
</tr>
</tbody>
</table>

Kapuas Hulu RAPBD 2020

<table>
<thead>
<tr>
<th>Dana Bagi Hasil (DBH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- PPh WPOPDN (Pasal 25 dan Pasal 29)</td>
</tr>
<tr>
<td>- PPh Pasal 21</td>
</tr>
<tr>
<td>- Pajak Bumi dan Bangunan (PBB)</td>
</tr>
<tr>
<td>- SDA Migas</td>
</tr>
<tr>
<td>- SDA Mineral dan Batubara</td>
</tr>
<tr>
<td>- SDA Kehutanan</td>
</tr>
<tr>
<td>o PSDH</td>
</tr>
<tr>
<td>o IIUPH</td>
</tr>
<tr>
<td>o DR</td>
</tr>
<tr>
<td>- SDA Panas Bumi</td>
</tr>
<tr>
<td>Total DBH</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dana Alokasi Umum (DAU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Formula DAU</td>
</tr>
<tr>
<td>- DAU Tambahan</td>
</tr>
<tr>
<td>- Bantuan Pendanaan Kelurahan</td>
</tr>
<tr>
<td>- Bantuan Pendanaan Penggajian PPPK</td>
</tr>
<tr>
<td>- Bantuan Pendanaan Penyetaraan Siltap Kepala Desa dan Perangkat Desa</td>
</tr>
<tr>
<td>Total DAU</td>
</tr>
</tbody>
</table>

Suggestions on Funding Mechanism

101 http://www.djp.kemenkeu.go.id/?p=13692
<table>
<thead>
<tr>
<th>Dana Alokasi Khusus – (DAK) Fisik</th>
<th>= Rp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reguler Total</td>
<td>123.058.530.000,-</td>
</tr>
<tr>
<td>- Pendidikan</td>
<td>3.314.820.000,-</td>
</tr>
<tr>
<td>- Kesehatan dan KB</td>
<td>85.595.950.000,-</td>
</tr>
<tr>
<td>- Sosial</td>
<td>0,-</td>
</tr>
<tr>
<td>- Air Minum</td>
<td>1.970.933.000,-</td>
</tr>
<tr>
<td>- Sanitasi</td>
<td>3.268.035.000,-</td>
</tr>
<tr>
<td>- Perumahan Pemukiman</td>
<td>0,-</td>
</tr>
<tr>
<td>- Jalan</td>
<td>28.908.792.000,-</td>
</tr>
<tr>
<td>Penugasan Total</td>
<td>32.010.492.000,-</td>
</tr>
<tr>
<td>- Pendidikan</td>
<td>0,-</td>
</tr>
<tr>
<td>- Kesehatan dan KB</td>
<td>559.999.000,-</td>
</tr>
<tr>
<td>- Air Minum</td>
<td>4.792.749.000,-</td>
</tr>
<tr>
<td>- Sanitasi</td>
<td>0,-</td>
</tr>
<tr>
<td>- Irigasi</td>
<td>4.482.853.000,-</td>
</tr>
<tr>
<td>- Pertanian</td>
<td>2.433.899.000,-</td>
</tr>
<tr>
<td>- Pasar</td>
<td>1.500.000.000,-</td>
</tr>
<tr>
<td>- Industri Kecil dan Menengah</td>
<td>0,-</td>
</tr>
<tr>
<td>- Kelautan dan Perikanan</td>
<td>1.859.337.000,-</td>
</tr>
<tr>
<td>- Pariwisata</td>
<td>3.096.649.000,-</td>
</tr>
<tr>
<td>- Lingkungan Hidup</td>
<td>675.000.000,-</td>
</tr>
<tr>
<td>- Kehutanan</td>
<td>0,-</td>
</tr>
<tr>
<td>- Transportasi Laut</td>
<td>0,-</td>
</tr>
<tr>
<td>- Jalan</td>
<td>12.620.006.000,-</td>
</tr>
<tr>
<td>Afirmasi Total</td>
<td>29.603.209.000,-</td>
</tr>
<tr>
<td>- Perumahan Pemukiman</td>
<td>4.028.361.000,-</td>
</tr>
<tr>
<td>- Pendidikan</td>
<td>333.465.000,-</td>
</tr>
<tr>
<td>- Kesehatan</td>
<td>13.080.214.000,-</td>
</tr>
<tr>
<td>- Air Minum</td>
<td>3.430.906.000,-</td>
</tr>
<tr>
<td>- Sanitasi</td>
<td>2.282.000.000,-</td>
</tr>
<tr>
<td>- Transportasi Perdesaan</td>
<td>6.447.763.000,-</td>
</tr>
<tr>
<td>- Transportasi Laut</td>
<td>0,-</td>
</tr>
<tr>
<td>Total DAK Fisik</td>
<td>184.672.231.000,-</td>
</tr>
</tbody>
</table>
### Dana Alokasi Khusus – (DAK) Non Fisik

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Bantuan Operasional Sekolah</td>
<td>Rp 0,-</td>
</tr>
<tr>
<td>- Bantuan Operasional Penyelesaian PAUD</td>
<td>Rp 2.298.000.000.000,-</td>
</tr>
<tr>
<td>- Bantuan Operasional Penyelesaian Pendidikan Kesetaraan</td>
<td>Rp 861.000.000.000,-</td>
</tr>
<tr>
<td>- Tunjangan Profesi Guru</td>
<td></td>
</tr>
<tr>
<td>- Tambahan Penghasilan Guru</td>
<td>Rp 57.003.692.000.000,-</td>
</tr>
<tr>
<td>- Tunjangan Khusus Guru</td>
<td>Rp 1.263.000.000.000,-</td>
</tr>
<tr>
<td>- Bantuan Operasional Penyelesaian Museum dan Taman Budaya</td>
<td>Rp 27.309.098.000.000,-</td>
</tr>
<tr>
<td>- Bantuan Operasional Kesehatan dan KB</td>
<td>Rp 0,-</td>
</tr>
<tr>
<td>- Bantuan Operasional Kesehatan</td>
<td></td>
</tr>
<tr>
<td>- Akreditasi Puskesmas</td>
<td>Rp 32.105.492.000.000,-</td>
</tr>
<tr>
<td>- Jaminan Persalinan</td>
<td>Rp 1.381.680.000.000,-</td>
</tr>
<tr>
<td>- Pengawasan Obat dan Makanan</td>
<td>Rp 3.480.687.000.000,-</td>
</tr>
<tr>
<td>- Bantuan Operasional KB</td>
<td>Rp 5.989.246.000.000,-</td>
</tr>
<tr>
<td>- Dana Peningkatan Kapasitas Koperasi dan UKM</td>
<td>Rp 0,-</td>
</tr>
<tr>
<td>- Dana Pelayanan Administrasi Kependudukan</td>
<td>Rp 417.358.000.000,-</td>
</tr>
<tr>
<td>- Dana Pelayanan Kepariwisataan</td>
<td>Rp 1.515.660.000.000,-</td>
</tr>
</tbody>
</table>

**Total DAK Non Fisik** = Rp 134.509.917.000.000,-

### Dana Insentif Daerah (DID)

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Kelompok Kategori Peningkatan Ekspor</td>
<td>Rp 11.744.290.000,-</td>
</tr>
<tr>
<td>- Kelompok Kategori Kesehatan Fiskal dan Pengelolaan Keuangan Daerah</td>
<td></td>
</tr>
<tr>
<td>- Kategori Belanja Wajib</td>
<td>Rp 250.000.000,-</td>
</tr>
</tbody>
</table>

**Total DID** = Rp 11.994.290.000,-

### Dana Desa

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Jumlah Desa</td>
<td>278</td>
</tr>
<tr>
<td>- Alokasi Dasar</td>
<td>Rp 184.260.068.000,-</td>
</tr>
<tr>
<td>- Alokasi Afirmasi</td>
<td>Rp 2.361.243.000,-</td>
</tr>
<tr>
<td>- Alokasi Kinerja</td>
<td>Rp 4.034.688.000,-</td>
</tr>
<tr>
<td>- Alokasi Formula</td>
<td>Rp 83.679.893.000,-</td>
</tr>
</tbody>
</table>

**Total Dana Desa** = Rp 274.335.892.000,-
B. WHAT YOU NEED TO KNOW ABOUT IMPACT INVESTMENT

The Global Impact Investing Network (GIIN) defines impact investments as “investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. Impact investments can be made in both emerging and developed markets and target a range of returns from below market to market rate, depending on investors’ strategic goals.”

Characteristics of Impact Investing

- **INTENTIONALITY** - An investor’s intention to have a positive social or environmental impact through investments is essential to impact investing.

- **INVESTMENT WITH RETURN EXPECTATIONS** - Impact investments are expected to generate a financial return on capital or, at minimum, a return of capital.

- **RANGE OF RETURN EXPECTATIONS AND ASSET CLASSES** - Impact investments target financial returns that range from below market (sometimes called concessionary) to risk-adjusted market rate, and can be made across asset classes, including but not limited to cash equivalents, fixed income, venture capital, and private equity.

- **IMPACT MEASUREMENT** - A hallmark of impact investing is the commitment of the investor to measure and report the social and environmental performance and progress of underlying investments, ensuring transparency and accountability while informing the practice of impact investing and building the field.

Who is Making Impact Investments?

Impact investment has attracted a wide variety of investors, both individual and institutional.

- Fund Managers
- Development finance institutions
- Diversified financial institutions/banks
- Private foundations
- Pension funds and insurance companies
- Family Offices
- Individual investors
- NGOs
- Religious institutions

102 https://thegiin.org/impact-investing/need-to-know/
### Example of Impact Investments

**INVESTOR TARGETED IMPACT**  
Catalyze new funding mechanisms to scale high-impact social entrepreneur

<table>
<thead>
<tr>
<th>INVESTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAME</strong></td>
</tr>
<tr>
<td><strong>INVESTOR DESCRIPTION</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INVESTEES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUND/PRODUCT NAME</strong></td>
</tr>
<tr>
<td><strong>MANAGER INFORMATION</strong></td>
</tr>
<tr>
<td><strong>MOTIVATION FOR INVESTMENT</strong></td>
</tr>
<tr>
<td><strong>INVESTMENT</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td><strong>INSTRUMENT</strong></td>
</tr>
<tr>
<td><strong>INVESTMENT SIZE</strong></td>
</tr>
<tr>
<td><strong>INVESTMENT TERM</strong></td>
</tr>
<tr>
<td><strong>INVESTMENT IMPACT OBJECTIVES</strong></td>
</tr>
<tr>
<td><strong>SOCIAL AND ENVIRONMENTAL METRICS TRACKED ON INVESTMENT</strong></td>
</tr>
</tbody>
</table>
C. COOPERATING WITH THE PRIVATE SECTOR LOCALLY, NATIONALLY, AND INTERNATIONALLY – OPPORTUNITIES AND LIMITATIONS

1. Promoting specific economic activities at the local scale:
   - Low-impact tourism operators or organic farmers.
   - Work through certification schemes or “regional brands” with many companies at the same time.
   - Biosphere reserves manage these brands themselves or work with other public or private partners to do it for them.

2. Creating and supporting local economic cooperation networks and supply chains
   - Develop a key business idea.
   - Support local private partners to develop high-value products.
   - Create an international value chain, such as in Kafa Biosphere Reserve, where Kafa together with GIZ, NABU, Deutsche Stiftung Weltbevölkerung, “GEO schützt den Regenwald” and Original Food.
     - Creating the conditions to grow the wild coffee in Ethiopia to fulfil very strict criteria of organic and fair production.
     - Exporting it to Germany and having a local retail partner
     - Sold at a high price as a specialty product.

3. Promoting marketing of regional products outside the biosphere reserve, e.g., through national/international wholesale or grocery chains
   - Biosphere reserves must cooperate with local large- or medium-sized industry.
   - Cooperate with MAB National Committee, UNESCO National Commission, and UNESCO Field Office.

4. Promoting the biosphere reserve at tourism fairs
   - Tourism is not a key own task, thus German Biosphere Reserves often cooperate closely with local tourism boards.
   - Joint umbrella tourism brand: “National Natural Landscapes”.

5. Cooperating with local companies as “sponsors”
   - Many German Biosphere Reserves cooperate with medium-sized companies in the area in the form of Public-Private Partnerships.

6. Cooperating with national/international companies as “sponsors”
   - Such partnerships can be initiated locally, but should go through a national legal partner, i.e., UNESCO National Commission, MAB National Committee.

The four main notes from the Foundation definition are:

1. **Foundations are legal entities**
   - That is, the Foundation is legally considered to be able to take legal actions and has legal consequences (the founder, supervisor, and management).

2. **Foundation has assets**, both movable and non-movable, which were initially obtained from the capital/wealth of the founders separately.

3. **Foundation has a specific purpose**, which is the implementation of values, whether religious, social, or humanitarian.
   - A foundation is a non-profit organization that is not for profit (non-profit oriented) as other business entities such as PT, CV, UD, Firma, and others.

4. **Foundation has no members.**
   - A foundation does not have a kind of shareholders as PT or allies in the CV or members in other business entities.

Required documents to establish a foundation, namely:

- Notary Deed of Establishment of the Foundation
- Company Domicile Certificate from the Kelurahan and Kecamatan
- Registered Certificate/NPWP from the Taxation Office
- Decree of the Ministry of Law and Human Rights of the Republic of Indonesia
- The announcement in the RI State Gazette from the RI State Printing Corporation
- Foundation Registration List from the Social Service

Requirements and documents needed/prepared to establish a foundation, including:

- Foundation name
- Total Initial wealth of the foundation
- Proof of capital/assets as the initial wealth of the foundation
- Photocopy of identity card of the founders
- Photocopy of ID card builder, supervisor, and management of the foundation
- Photocopy of personal NPWP, specifically the chair of the foundation
- Photocopy of proof of office of the foundation (in the form of SPPT PBB/lease agreement)
- RT/RW Cover letter according to the domicile of the foundation
- Other requirements if needed

How to establish a Foundation?

The Foundation Deed of Establishment must be made in the form of a Notarial Deed. It is the Notary who will oversee the process of establishing the Foundation, starting from ordering the name, submitting an application for ratification of the Foundation’s legal entity to the Minister, and to receiving the documents of the Foundation’s process.

When the conditions are complete, the founders must sign the deed of the establishment before the Notary. This foundation has been established since the founding act was established by the founders before a notary. However, this Foundation is not yet legally incorporated as a Legal Entity. For this reason, the Notary will immediately process the ratification of the Foundation’s legal entity to the Indonesian Ministry of Law and Human Rights.

After the Foundation Deed of Establishment was ratified as a legal entity by the Minister of Law and Human Rights, then the Foundation is considered as the party that can carry out legal actions that are legally responsible for what they do. So the accountability is inherent after the Minister ratified the Foundation Deed of Establishment. Handling process ± 60 business days.

E. THE INDONESIA CLIMATE CHANGE TRUST FUND

The Indonesia Climate Change Trust Fund (ICCTF) is a key instrument of the Government of Indonesia in reducing emission intensity and greenhouse gases emission through actions of low carbon development and adaptation on climate change impact. ICCTF also strives to integrate climate change issues into Development Plans at the national, provincial and regional level as well as implementing the initiatives on climate change mitigation and adaptation. Through leveraging and channelling of domestic resources and international funds into projects aligned with Indonesia’s RAN/RAD-GRK implementation plan, the ICCTF supports Indonesia’s 29% (national effort)/41% emission reduction target (with international support).

FIGURE 17 ICCTF organizational structure
Objectives
Supporting the Indonesian Government in reducing GHG emission through moves towards a low carbon economy and adaption to climate change impacts.

Goals
- Integrating climate change issues into national, provincial and district development plans;
- Implementing mitigation and adaptation initiatives in the context of GHG emission reduction.
NOTES:

This paper does not recommend ICCTF as the Indonesian version of trust fund mechanism due to the followings:

ICCTF’s status as a Working Unit (Satker) limits its ability to act as an ideal and efficient trustee. Some problems as a Satker are:

- The grant must be recorded in the APBN mechanism (not everybody wants to use government channel, not flexible).
- Limited distribution of funds, especially to local governments and ministries/institutions at the central level -> Satker cannot distribute funds directly to Local Government (it has to be conducted through Directorate General of Fiscal Balance) and to Line Ministries since it is already recorded in the APBN mechanism (no double counting).
- Procurement of goods and services that must follow the government rules of procurement of goods and services.
- The 3R-1P concept ⇒ the Grant management mechanism consists of NPH registration, account opening, DIPA revision, and endorsement of grant revenue.
- The Central Government Accounting and Financial Reporting System (SAPP) that limit the ability of the ICCTF in flexible pooling funds.