



DESENVOLVIMENTO ECONÓMICO E CONSERVAÇÃO

PLANEAMENTO DO USO DA TERRA, MEDIDAS DE PREVENÇÃO E
MECANISMO DE IMPLEMENTAÇÃO DO CONCEITO DE NENHUMA PERDA
LÍQUIDA E CONTRABALANÇOS DE BIODIVERSIDADE EM MOÇAMBIQUE

Inhambane
3 de Agosto 2018

HUGO COSTA



Science

BBC

Sign in

News

Sport

Weather

Shop

Earth

Travel

More

Search

NEWS

Home Video World UK Business Tech Science Stories Entertainment & Arts Health World News TV More

BBC travel

FALL IN LOVE WITH THE WORLD

Celebrating people, places and cultures.

EXPLORE

Science & Environment

'Shocking' human impact reported on world's protected areas

By Matt McGrath
Environment correspondent

17 May 2018 115

Facebook Twitter Email Share



Top Stories

Archbishop guilty of child abuse cover-up

3 hours ago

Iran condemns US sanctions move

9 hours ago

Pence warns N Korea not to 'play' Trump

1 hour ago

BBC travel

Sciences, University of Queensland, Brisbane, Queensland 4072, Australia. [†]Wildlife Conservation Society, Global Conservation Program, Bronx, NY 10460, USA. ^{*}Corresponding author. Email: k.j.pennell@uq.edu.au

Journal of Science 360, 788–791 (2018) 18 May 2018

RESEARCH

PROTECTED AREAS

One-third of global protected land is under intense human pressure

Kendall R. Jones,^{1,2,*} Oscar Venter,³ Richard A. Fuller,^{3,4} James R. Allan,^{1,2} Sean L. Maxwell,^{1,2} Pablo Jose Negret,^{1,2} James E. M. Watson^{1,2,5}

In an era of massive biodiversity loss, the greatest conservation success story has been the growth of protected land globally. Protected areas are the primary defense against biodiversity loss, but extensive human activity within their boundaries can undermine this. Using the most comprehensive global map of human pressure, we show that 6 million square kilometers (32.8%) of protected land is under intense human pressure. For protected areas designated before the Convention on Biological Diversity was ratified in 1992, 55% have since experienced human pressure increases. These increases were lowest in large, strict protected areas, showing that they are potentially effective, at least in some nations. Transparent reporting on human pressure within protected areas is now critical, as are global targets aimed at efforts required to halt biodiversity loss.

human pressure inside protected areas may impede progress toward international conservation targets (3).

Here we use the most comprehensive global map of human pressure on the environment (the human footprint; (14)) to quantify the extent and intensity of human pressure within protected areas and how this has changed since 1992. The human footprint provides a single pressure metric that combines data on built environments, intensive agriculture, pasture lands, human population density, nighttime lights, roads, railways, and navigable waterways (14). The presence of these pressures is directly linked to constraints on and declines in biodiversity (8, 15, 16). We delineate areas of intense human pressure in protected areas (human footprint ≥ 4 ; see methods) and explore how excluding these areas would affect measurements of progress toward Aichi Biodiversity Target 11. We also assess the impact of protected-area size and IUCN management category on patterns of human pressure within protected areas.

We find that the average human footprint score within protected areas is 3.3, almost 50% lower than the global mean of 6.16 (14). Despite this, human activities are prevalent across many protected areas, with only 42% of protected land free of any measurable human pressure (figs. S1 and S2). Areas under intense human pressure make up 32.8% (6,005,249 km²) of global protected land (Fig. 1), and more than half (55%) of all protected

scale, considered only a small subset of global protected areas ($n = 8930$), and did not consider many important human pressures, such as roads and navigable waterways (11), livestock grazing (12), and urbanization (13). A comprehensive analysis of cumulative human pressure within protected areas, and how this has changed since the Convention on Biological Diversity was ratified in 1992, is necessary to assess how hu-

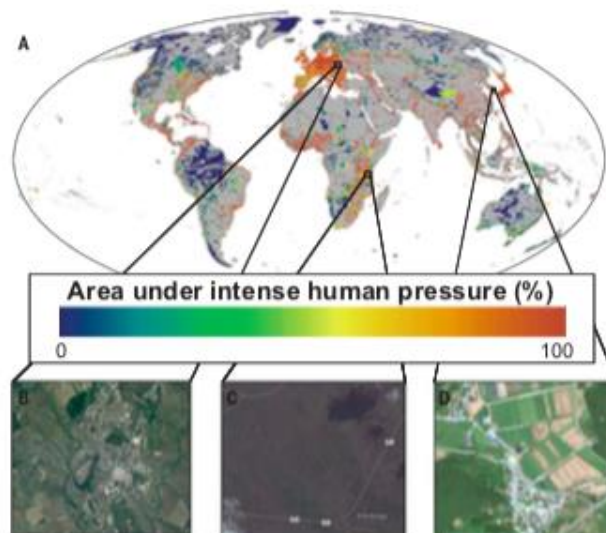


Fig. 1. Human pressure within protected areas. (A) Proportion of each protected area that is subject to intense human pressure, spanning from low (blue) to high (orange) levels. (B) Karamanets-Podolskiy, a city within Podolskiy Tovtry National Park, Ukraine. (C) Major roads fragment habitat within Mikumi National Park, Tanzania. (D) Agriculture and buildings within Dadochaesang National Park, South Korea. [Photo credits: Google Earth]

TODAY'S NEWS IN VERTICAL VIDEO

DOWNLOAD THE APP

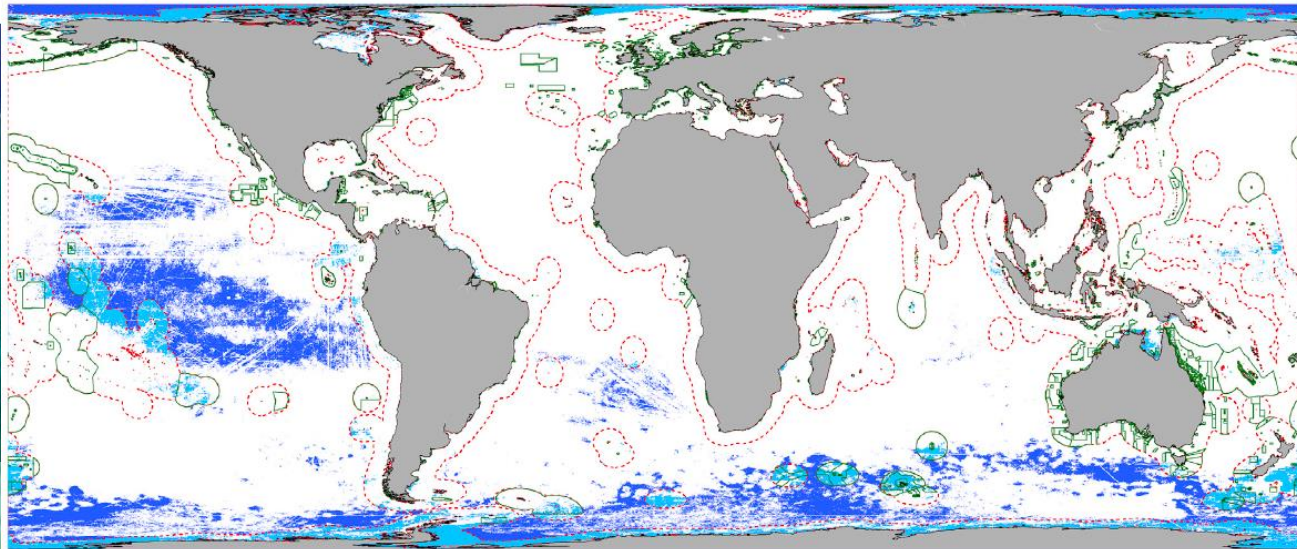
Science & Environment

Ocean wilderness 'disappearing' globally

By Mary Halton
Science reporter, BBC News

26 July 2018

f Share



Wilderness inside EEZ Wilderness outside EEZ Exclusive Economic Zone 2017 MPAs

Figure 1. Global marine Wilderness Extent and Protection
Marine wilderness in exclusive economic zones (light blue), in areas outside national jurisdiction (dark blue), and marine protected areas (green). See also Tables S1–S3 and Figures S1–S4.

Please cite this article in press as: Jones et al., The Location and Protection Status of Earth's Diminishing Marine Wilderness, *Current Biology* (2018), <https://doi.org/10.1016/j.cub.2018.06.010>

Current Biology
Report

CellPress

The Location and Protection Status of Earth's Diminishing Marine Wilderness

Kendall R. Jones,^{1,2,3,11,*} Carissa J. Klein,^{2,3} Benjamin S. Halpern,^{4,5,6} Oscar Venter,⁷ Hedley Grantham,¹ Caitlin D. Kuempel,³ Nicole Shumway,^{2,3} Alan M. Friedlander,^{8,9} Hugh P. Possingham,^{3,10} and James E.M. Watson^{1,2,3}

¹Wildlife Conservation Society, Global Conservation Program, Bronx, NY 10460, USA
²School of Earth and Environmental Sciences, The University of Queensland, St Lucia, QLD 4072, Australia
³Centre for Conservation and Biodiversity Science, The University of Queensland, St Lucia, QLD 4072, Australia
⁴National Center for Ecological Analysis and Synthesis, University of California, Santa Barbara, 735 State Street, Santa Barbara, CA 93101-5604, USA
⁵Bren School of Environmental Science and Management, University of California, Santa Barbara, Santa Barbara, CA 93101, USA
⁶Imperial College London, Silwood Park Campus, Burkhurst Road, Ascot, SL5 7PY, UK
⁷Natural Resource and Environmental Studies Institute, University of Northern British Columbia, Prince George, BC V2N 4Z9, Canada
⁸Pristine Seas, National Geographic Society, Washington, DC, USA
⁹Fisheries Ecology Research Lab, University of Hawai'i at Mānoa, Honolulu, Hawai'i, USA
¹⁰The Nature Conservancy, 4245 Fairfax Drive, Arlington, VA 22203, USA
¹¹Lead Contact
*Correspondence: kjones@wcs.org
<https://doi.org/10.1016/j.cub.2018.06.010>

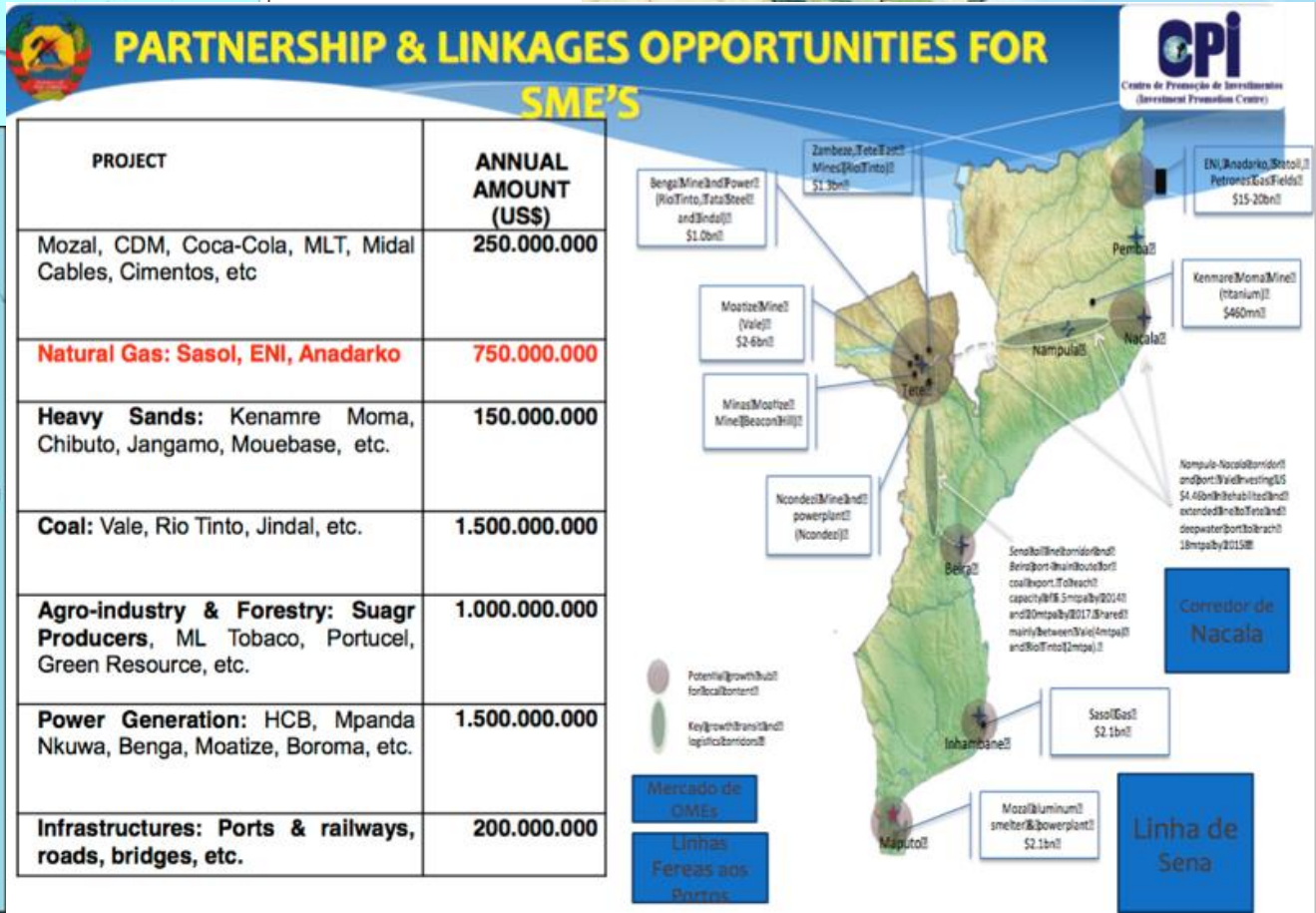
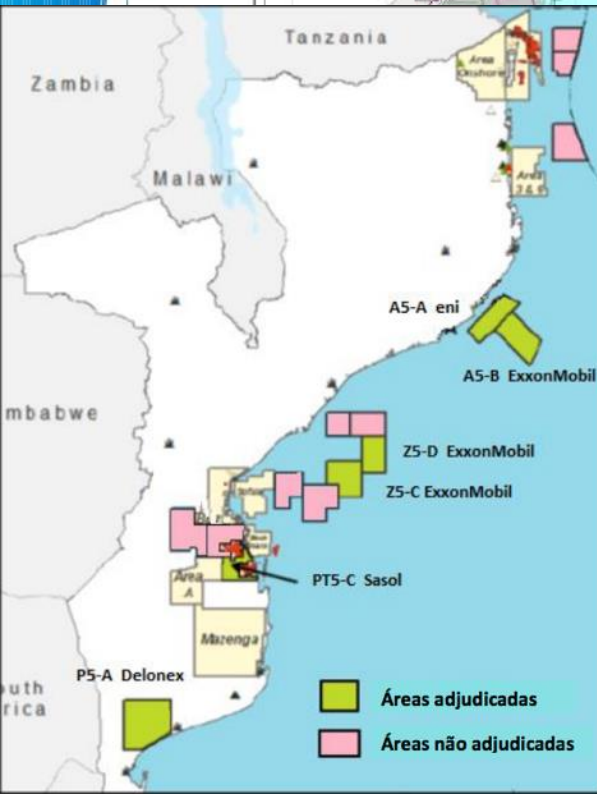
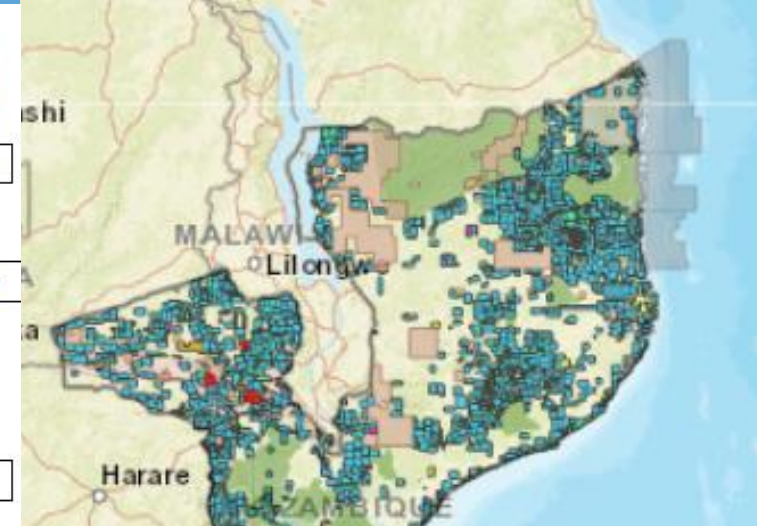
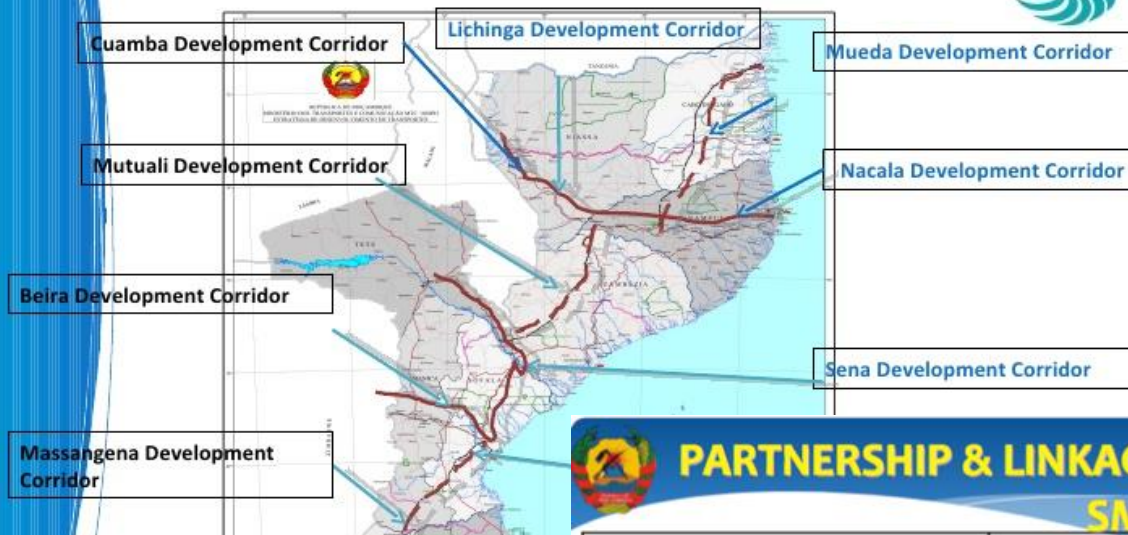
SUMMARY

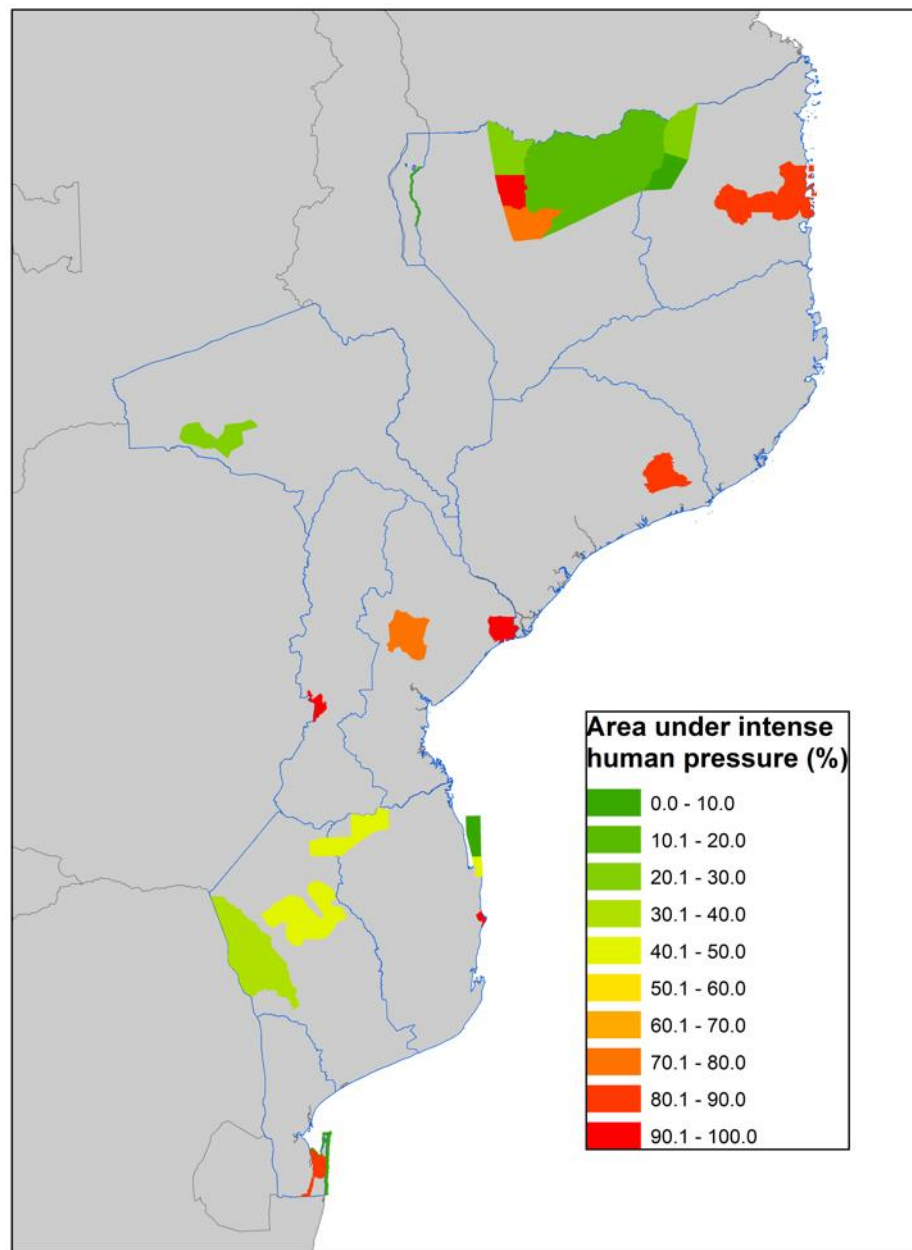
As human activities increasingly threaten biodiversity [1, 2], areas devoid of intense human impacts are vital refugia [3]. These wilderness areas contain high genetic diversity, unique functional traits, and endemic species [4–7]; maintain high levels of

RESULTS AND DISCUSSION

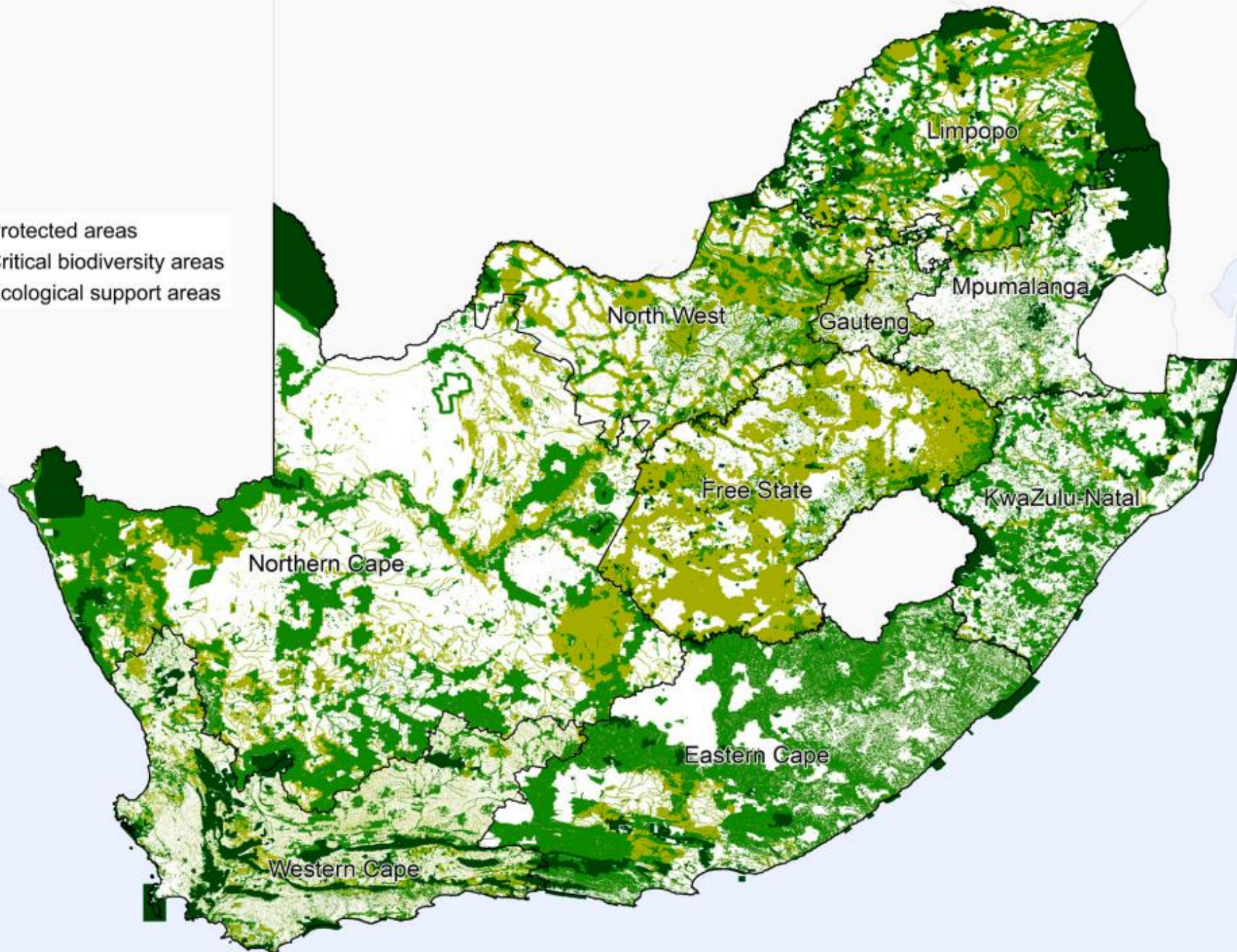
Global Marine Wilderness
Identifying marine wilderness requires finding biologically and ecologically intact seascapes that are mostly free of human disturbance [3, 16]. Here we do so by mapping those areas that have low impact across all human stressors and also

DEVELOPMENT CORRIDORS

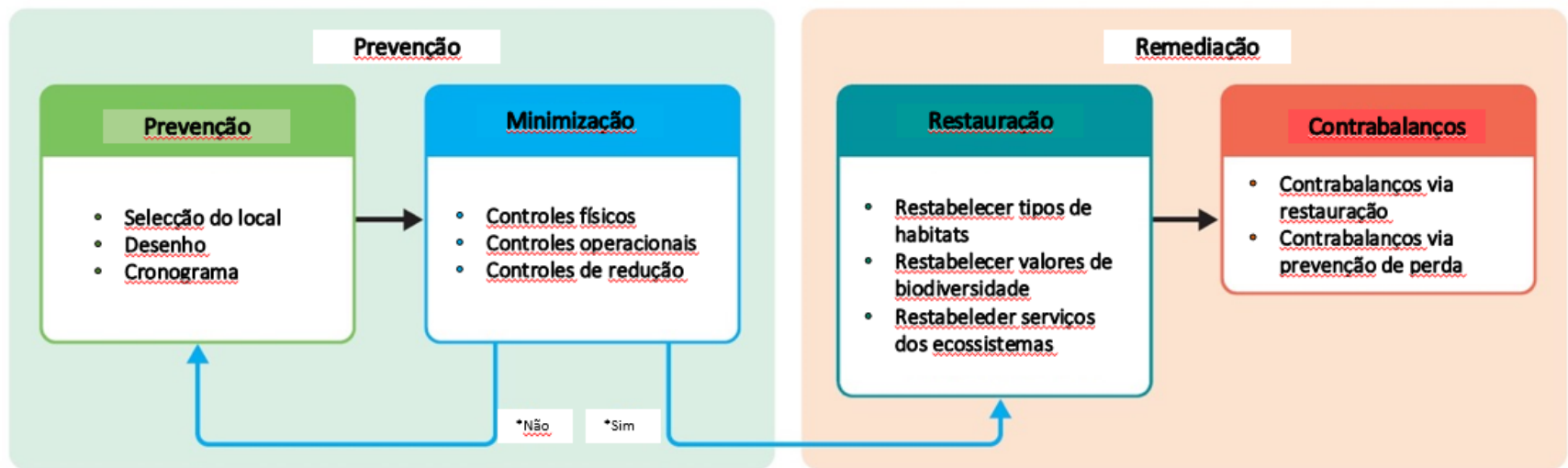




- Protected areas
- Critical biodiversity areas
- Ecological support areas



Prevenção é melhor do que a cura



*Será que os potenciais impactos podem ser geridos adequadamente através de medidas de remediação?

AMBIENTE FAVORÁVEL PARA UM SISTEMA DE NENHUMA PERDA LÍQUIDA DE BIODIVERSIDADE

Permanência | Adicionalidade | Equivalência

O Governo está a elaborar um quadro legal para a implementação adequada da hierarquia de mitigação, para garantir a protecção da mesma e dos serviços dos ecossistemas. O estabelecimento de directrizes, processos e ferramentas claras, providencia a todos os *stakeholders*, incluindo as empresas, um ambiente favorável e claro para a implementação das várias etapas da hierarquia de mitigação, incluindo os contrabalanços de biodiversidade.

QUADRO
LEGAL E
POLÍTICO

PLANEAMENTO ESPACIAL
(REGISTO DAS ÁREAS A EVITAR E
RECEPTORAS DE
CONTRABALANÇOS) E
ORIENTAÇÕES E GUIÕES
TÉCNICOS

MECANISMO
FINANCEIRO

Quais os planos a nível nacional?

Plano Quinquenal do Governo:

- “Melhoria da capacidade nacional para o planeamento espacial e da biodiversidade”
- “Mapeamento de fauna”
- “Conservação dos ecossistemas e biodiversidade e uso sustentável dos recursos naturais”

Quais os planos a nível nacional?

PNDT 2018 inclui os seguintes objectivos:

- “**Aprimorar o planeamento e ordenamento territorial...**”
- “**Integração da Economia Verde-Azul e da agenda de crescimento verde nas prioridades nacionais de desenvolvimento, assegurando a conservação de ecossistemas, a biodiversidade e o uso sustentável dos recursos naturais.**”
- **Prosseguir o mapeamento de recursos faunísticos**
- **Assegurar a implementação de medidas de mitigação dos impactos negativos causados pela implementação de projectos de desenvolvimento**
- **Reforçar a capacidade nacional para o planeamento, gestão e conservação da Biodiversidade**
- **Garantir a realização da Avaliação Ambiental e Social Estratégica nos grandes projectos e planos de desenvolvimento.**

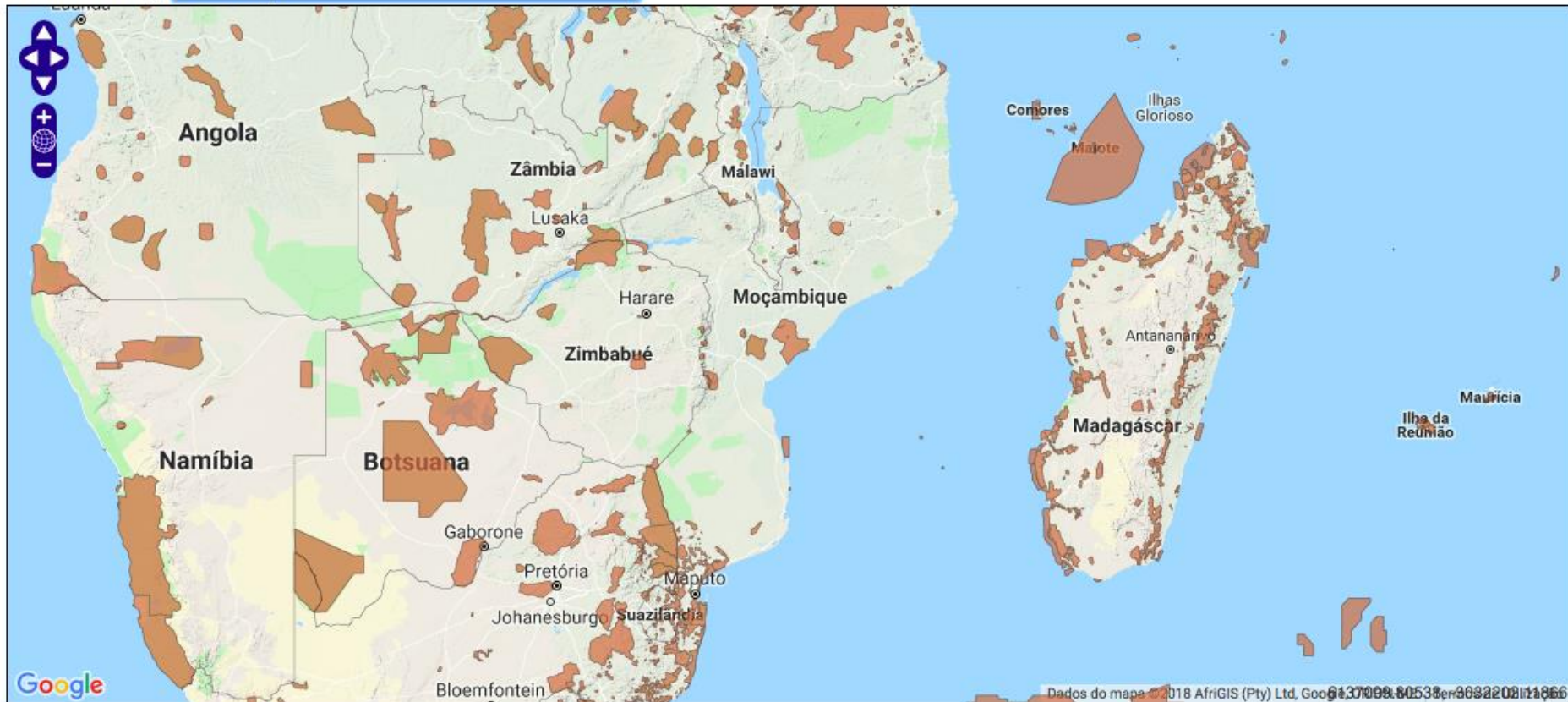
World Database of Key Biodiversity Areas™



Managed by BirdLife International on behalf of the KBA Partnership

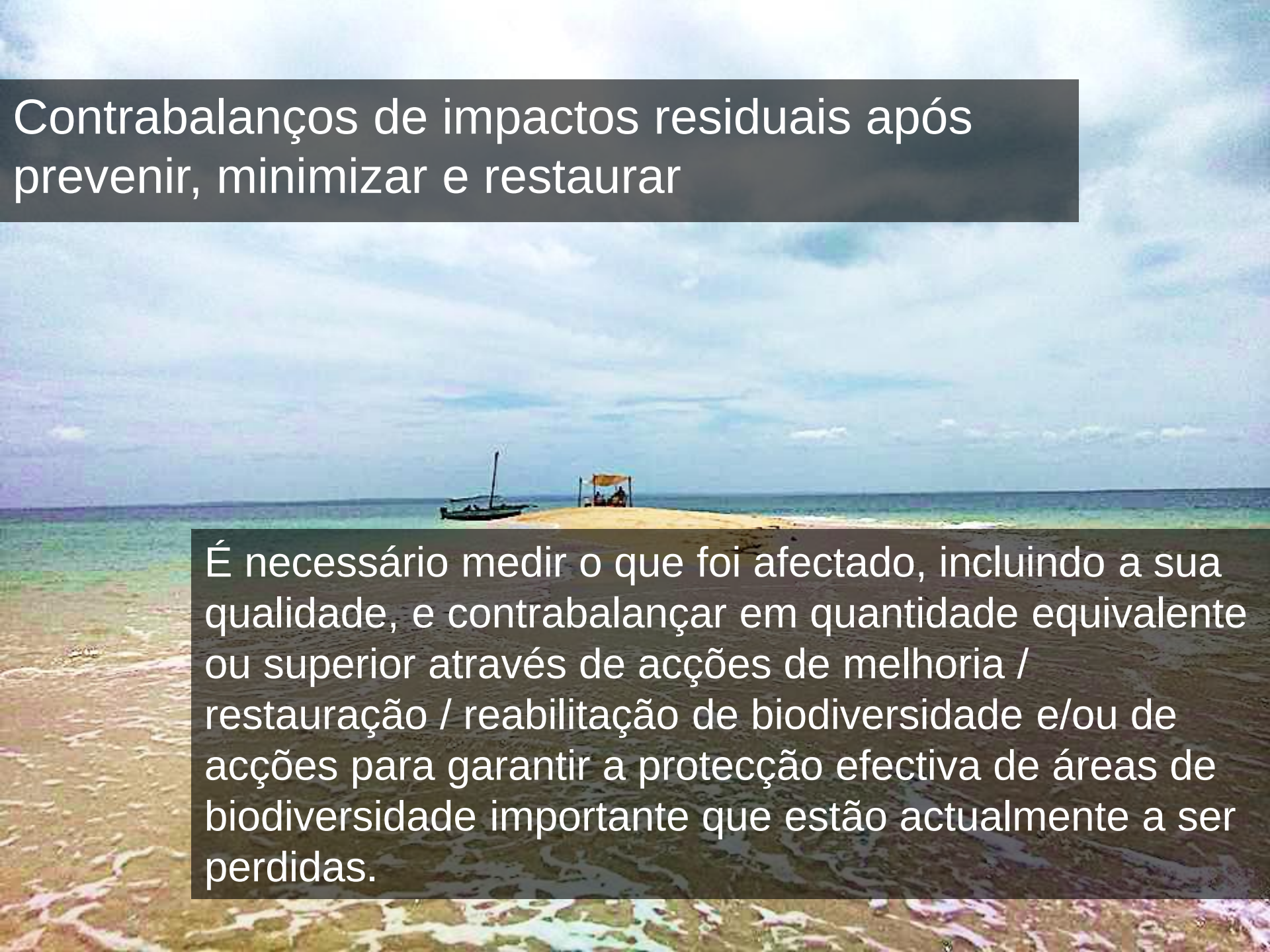
[Search ▾](#)[Criteria](#)[KBA Partnership ▾](#)[End users](#)[Get involved](#)[Request data](#)[Publications](#)[About](#)[Business Guidelines ▾](#)

Zoom to country



The map shows internationally significant KBAs, including global KBAs, regional KBAs and those whose global/regional status is not yet determined.

Contrabalanços de impactos residuais após prevenir, minimizar e restaurar



É necessário medir o que foi afectado, incluindo a sua qualidade, e contrabalançar em quantidade equivalente ou superior através de acções de melhoria / restauração / reabilitação de biodiversidade e/ou de acções para garantir a protecção efectiva de áreas de biodiversidade importante que estão actualmente a ser perdidas.

PROPONENTES COM PROJECTOS DE CATEGORIA A+ ou A sujeitos a licença ambiental

QUE REQUEIRAM CONTRABALANÇOS DE BIODIVERSIDADE COMO FORMA DE COMPENSAR OS IMPACTOS RESIDUAIS SIGNIFICATIVOS E ACEITÁVEIS SOBRE A BIODIVERSIDADE APÓS A APLICAÇÃO DAS RESTANTES ETAPAS DA HIERARQUIA DE MITIGAÇÃO

REGULADOR

O Governo garante a conformidade legal na categorização dos projectos de acordo com a lei, regula o procedimento de AIA, aprova o PGCB (como parte do PGA) e sua conformidade e avalia a monitoria durante as fases de pré-construção, construção, operação e desmobilização

PAINEL DE ESPECIALISTAS INDEPENDENTES PARA REVISÃO
(aprovação e auditoria do PGCB)

CONTRABALANÇOS ATRAVÉS DE UM FUNDO FIDUCIÁRIO DE CONSERVAÇÃO

Aconselhador | Supervisão de Gestão Financeira | Conformidade e M&A

OU

CONTRABALANÇOS PELO PROPONENTE

Necessidade de garantir um mecanismo financeiro, conformidade e M&A

MECANISMO DE REGISTO NACIONAL DE CONTRABALANÇOS

Prioridade 1: Melhorar a biodiversidade dentro das Áreas Protegidas sub-financiadas

Prioridade 2: Expandir as Áreas Protegidas existentes ou integração de uma nova área já gerida em prol da conservação na rede nacional de AC

Prioridade 3: Criar novas Áreas Protegidas

PLANO DE GESTÃO DE CONTRABALANÇOS DE BIODIVERSIDADE (PGCB)

PROVEDOR DE CONTRABALANÇOS

Dentro das Áreas Protegidas:
Gestor da Área Protegida em co-gestão com ONG, OSC, Universidades, Sector Privado ou combinação destes

Fora das Áreas Protegidas :
ONG, OSC, Universidades, Sector Privado ou combinação destes

COMITÉ DE ACOMPANHAMENTO

Proponente do projecto, provedor de Contrabalanços, Área Protegida, Autoridades Nacionais e Locais, ONG, OSC, Univ., FFC (quando aplicável)



We Stand for Wildlife



Contacto: hcosta@wcs.org
Website: www.combo-africa.org