



Understanding Government Biodiversity Offset Policies in the Mining Sector



INTERGOVERNMENTAL FORUM
on Mining, Minerals, Metals and
Sustainable Development

At a glance

- The Global Inventory of Biodiversity Offset Policies is a new online, open-access database developed by the International Union for the Conservation of Nature (IUCN) and The Biodiversity Consultancy.
- The Inventory shows that government environmental policies increasingly refer to the mitigation hierarchy and biodiversity offsets as a desired or required tool.
- Most biodiversity-rich countries have relatively advanced biodiversity offset policies. However, there are still many countries that require support to develop policies to achieve good governance in the mining sector.

WORLD VIEW - A SNAPSHOT OF NATIONAL BIODIVERSITY OFFSET POLICIES

Biodiversity is under immense threat from human activities. Mining is one of the industry sectors with profound impacts on biodiversity. Surface mining strips land from forest, reducing wildlife habitats that are already under threat from climate change and other developments. The mining sector is also expected to grow; a recent study by ICMM revealed that more countries are now economically dependent on mining¹. Another study² showed that the global move towards clean energy will likely increase the demand for metals and thus also the amount of mining required to supply it. This calls for an innovative and effective way to manage biodiversity in the mining sector.

The mitigation hierarchy³ is established as the international best practice in impact mitigation. It has now been adopted globally by financial institutions and multinational companies as part of their risk management strategies. The mitigation hierarchy dictates management action to prioritise and maximise avoidance of impacts; then followed by actions to minimise impacts and to restore/rehabilitate the impacted environmental features. When significant residual impacts remain after the implementation of these interventions, an offset is then required. Biodiversity offsets are measurable conservation outcomes resulting from actions that compensate for the residual impacts of development projects after full mitigation⁴. Offsets should be designed to achieve a no net loss of biodiversity or preferably, a net gain.

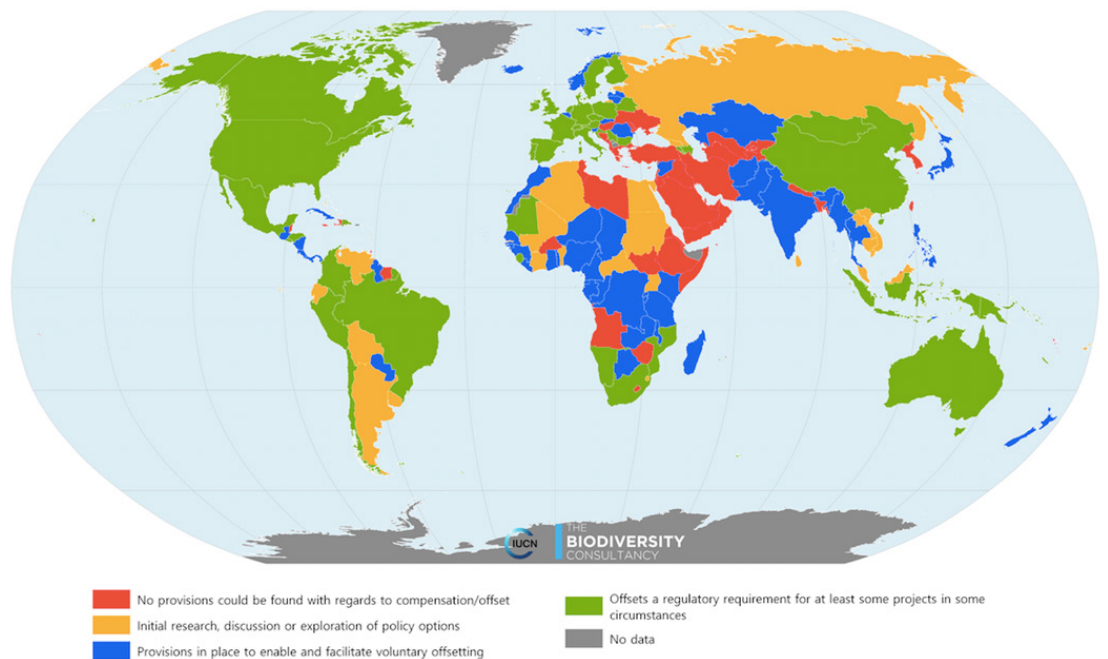


Figure 1. National biodiversity offsets policy development compiled

Source: Global Inventory of Biodiversity Offsets Policies

¹ International Council on Mining and Metals (ICMM) (2016). Role of Mining in National Economies - Third Edition.

² World Bank (2017). The Growing Role of Minerals and Metals for a Low Carbon Future.

³ The mitigation Hierarchy: avoidance, minimisation, rehabilitation/restoration, and offset of impacts; for more information: <http://www.csbi.org.uk/tools-and-guidance/mitigation-hierarchy/>

⁴ For more information on biodiversity offset, please visit <http://www.thebiodiversityconsultancy.com/approaches/biodiversity-offsets/> and <http://www.iucn.org/offsets>

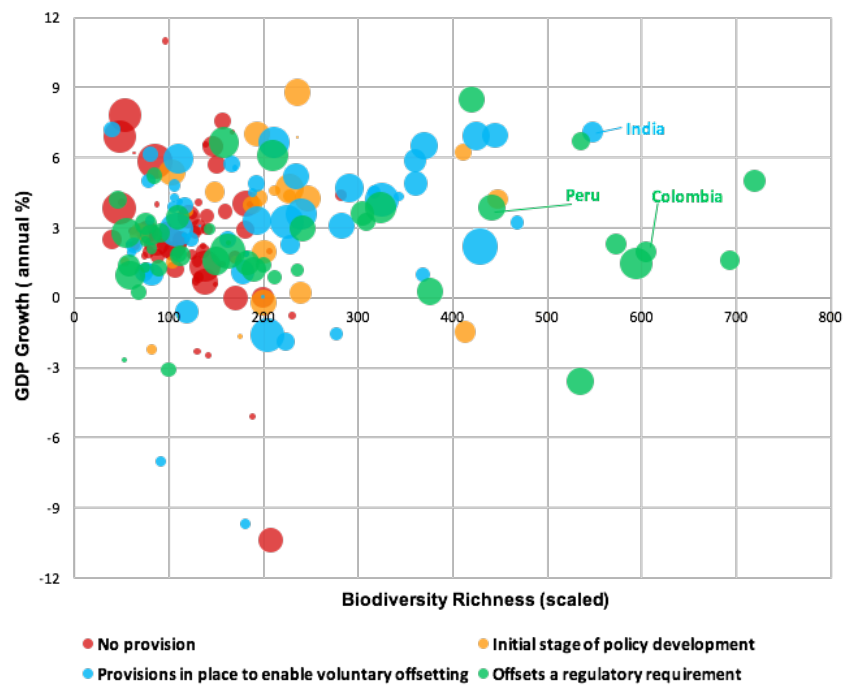


Figure 2. Interpreting the inventory: A country by country comparison of biodiversity richness (x-axis), GDP growth (y-axis), Mining Contribution Index (size of bubbles), and development of offset policies (bubble colour).

Offsets are increasingly recognised as a potentially effective approach in managing impacts to biodiversity as shown by national environmental policies and legislation that refer to the mitigation hierarchy and biodiversity offsets as a desired or required tool. While the focus of the application of the mitigation hierarchy varies across sectors and development projects, it is often applied to the industrial extractive industry. The **number of countries with government policies on biodiversity offsets has doubled in the past 15 years**, from 60 countries (in 2000) to 115 countries (from 2001 to 2017). Currently, 43 countries make offsets a regulatory requirement for mining developments in at least some scenarios, while 63 countries enable and facilitate voluntary offsetting, and 26 countries are undertaking initial research, discussions or exploration of policy options. See Figure 1 for the global view of national offset policies.

OFFSET POLICIES ARE ON THE RISE

Analysis of the Global Inventory of Biodiversity Offset Policy (hereafter referred to as the Inventory) shows that governments are increasingly referring to the mitigation hierarchy and biodiversity offsets in their environmental policies, and aligning with international best practices and World Bank safeguards⁵, although some gaps still exist. The Inventory confirms that most countries that are both biodiversity-rich and highly mining-dependent tend to have advanced offset policies, as evidenced by the cluster of mandatory and voluntary provisions (green and blue spots) in the top right quadrant in Figure 2. GDP growth may indicate increased

demand on mining resources, but this element needs to be further explored. However, the Inventory also indicates that there are mining-dependent countries with high biodiversity richness which are still at the research and exploratory stage of policy development (orange spots on the right side of Figure 2); more regulatory development is needed in these countries. In addition, there is a wide variation in approaches, with typical mechanisms being through environmental impact assessments and/or forestry sector regulations.

Peru and Colombia provide two interesting examples: both are mineral-rich countries with a high biodiversity richness, and they scored highly in terms of offset policies. In Peru, offset regulations are a requirement for projects whose characteristics, localisation or scope can potentially lead to significant negative quantitative or qualitative impacts. Colombian environmental regulation for mining places a clear emphasis on the mitigation hierarchy and also provides guidance on offset calculation.

Some biodiversity-rich countries with a lower mining dependency also perform well in offset policy. For instance, India has a lower reliance on mining compared to other countries, but still has provisions in place to compensate for impacts on forests. Overall, countries with a high biodiversity richness coupled with a high or very high mining-dependency tend to score well in terms of offset policy development. This is a promising observation regarding mainstreaming biodiversity into good governance. However, some gaps in terms of policy development exist in mining-dependent countries (evidenced at the left of the graph).

⁵ Please visit <http://www.worldbank.org/en/programs/environmental-and-social-policies-for-projects/brief/environmental-and-social-safeguards-policies> for more information

ABOUT THE INVENTORY

IUCN and The Biodiversity Consultancy researched and compiled 198 countries' publicly available national environmental laws and legislation with regard to offsets provisions. This data, alongside country summaries and links to relevant documents, is what drives the Global Inventory of Biodiversity Offset Policies. The online Inventory is freely accessible and is the only resource with this information in the world.

The Inventory grades each country's offset policy development to give an indication of how biodiversity offset policies are enshrined (or otherwise) in legislation, from receiving no mention to being a mandatory requirement. Countries were scored from 0 to 3 according to the level of achievement of offsets policies (with 0 being 'no provisions could be found with regards to compensation/offsets; 1 being 'initial research, discussion or exploration of policy options'; 2 being 'provisions in place to enable and facilitate voluntary offsetting'; and 3 'offsets a regulatory requirement for at least some projects in some circumstances'.

The Global Inventory of Biodiversity Offset Policy is publicly accessible online from portals.iucn.org/offsetpolicy/policy-reviews and www.iucn.org/offsets

For any comments or to provide further information to update the database, please contact:

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SOURCES

IUCN, 2014, Biodiversity offsets technical study paper, Gland, Switzerland, at: <https://portals.iucn.org/library/sites/library/files/documents/2014-044.pdf> (Accessed on October 23 2017).

The Biodiversity Consultancy (TBC), 2016, Government policies on biodiversity offsets, Briefing Note, at: <http://thebiodiversityconsultancy.com/wp-content/uploads/2013/07/Government-policy-2.pdf> (Accessed October 23 2017).

NOTES

The team wishes to emphasise that:

- All policies and legal documents reviewed are taken from the public domain. Clarification and updates on policy information from any country are welcome.
- This review only attempts to capture and describe written policy, and does not explore actual implementation and compliance.
- While the project team is fluent in English, Spanish, French and Bahasa, any additional translation relied on Google Translate. Though this presented some challenges with the research, the team made every effort to capture contextual understanding to back up analyses.



IUCN is a membership Union composed of both government and civil society organisations. It harnesses the experience, resources and reach of its 1,300 Member organisations and the input of some 15,000 experts. IUCN is the global authority on the status of the natural world and the measures needed to safeguard it.



The Biodiversity Consultancy focus its biodiversity and ecosystem services expertise on practical solutions for managing biodiversity risk and opportunity. We work together with industry-leading clients, lenders, government, NGOs and academics to establish leading environmental performance and a sustainable basis for development.



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The **Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF)** supports more than 60 nations committed to leveraging mining for sustainable development to ensure that negative impacts are limited and financial benefits are shared. It is devoted to optimizing the benefits of mining to achieve poverty reduction, inclusive growth, social development and environmental stewardship