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ISSUES PAPER:

WORKSHOP ON THE FINANCIAL TERMS OF CONTRACTS FOR DEEP-SEA MINING

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Background

The 36-member International Seabed Authority (ISA) Council is currently negotiating exploitation regulations of the ISA Mining Code. The exploitation regulations are set to be adopted by July 2023 which could allow for contractors at the ISA to submit plans of work for review and begin commercial mining as early as 2024. A key part of the draft exploitation regulations has yet to be defined, pertaining to the financial terms of a contract, including settling on a payment regime and setting payment rates for deep-sea mining (DSM) (i.e., Part VII and Appendix IV of the draft exploitation regulations).

The Open-Ended Working Group (OEWG) on the financial terms of contracts and the financial model and payment mechanism for DSM is tasked with advancing Part VII and Appendix IV of the draft exploitation regulations. The OEWG held its fourth in-person meeting during the ISA Council meetings on 21-22 March 2022. The meeting focused on royalty regime options, including:

- a fixed rate ad valorem only royalty;
- a two staged (in time) ad valorem only royalty;
- a combined ad valorem royalty and profit-based system;
- and a progressive, two staged ad valorem royalty only (see **Part 3** below).

OEWG meetings have been informed by a series of studies, including:

- a report from the Massachusetts Institute of Technology (MIT) on the royalty regime options;
- a summary of earlier reports prepared by CRU and RMG Consulting relating to a *Comparative Analysis of the Financial Aspects of Seabed Mining and Land-based Mining*;
- the *2020 Study of the Potential Impact of Polymetallic Nodules Production from the Area on the Economies of Developing Land-based Producers of those Metals which are Likely to be Most Seriously Affected*;
- detailed submissions from the Africa Group.

There is difficulty reaching consensus amongst ISA Council members on the payment regime options and payment rate levels that generate sufficient value for the Common Heritage of Mankind and reflect the principles and objectives of “fairness” with terrestrial based mining interests as identified in United Nations Convention on the Law of the Sea (UNCLOS) and the 1994 Implementing Agreement.

To support the objectives of the OEWG, the International Institute for Sustainable Development (IISD), which hosts the Secretariat of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF), with the financial support of Natural Resources Canada, has been asked to deliver a workshop on the financial terms for DSM. IGF supports more than 75 nations committed to leveraging mining for sustainable development. Drawing on the expertise in the IGF’s program on mining taxation, this workshop will introduce best practices from terrestrial mining governance and facilitate discussions on issues such as payment regime options, payment rates, economic compensation, and considerations on terrestrial and deep-seabed mining.



This Issues Paper is background information for this workshop. It is intended to facilitate discussions during the workshop, not provide specific recommendations. It is structured as follows:

- **Part 1** covers the objectives and legal obligations that any DSM payment regime must fulfil;
- **Part 2** describes the legal basis for the taxation of DSM by the ISA.
- **Part 3** summarises the payment regime options, and responses from ISA members;
- **Part 4** investigates what the revenue goal for a DSM payment regime should be, considering comparability with land-based mining fiscal regimes, the role of sponsoring state taxes, and the issue of compensation for land-based mining countries and environmental damage;
- **Part 5** evaluates the payment regime options in light of the overarching revenue goal, as well as from a qualitative perspective. It also explores two proposals for a simplified profit share based on several terrestrial mining fiscal regimes; and the mechanics of a variable rate royalty.
- **Part 6** highlights three tax issues that need to be addressed under any DSM payment regime. They are the taxation of the taxation of subcontractors, the transfer of mining rights, and the stabilisation of fiscal terms. These issues are highly material, representing billions of dollars in potential revenue for the ISA.

1. Objectives and Obligations for a Payment Regime for Deep-Sea Mining

The starting point for designing any fiscal regime should be the principles, policy objectives, and in this case legal obligations, it is expected to fulfil. For DSM, there are three requirements mandated by the UNCLOS, and the 1994 Implementing Agreement.

- a) Article 140 of UNCLOS states: *'The Area and its resources are the Common Heritage of Mankind,'* and that DSM *'shall be carried out for the benefit of mankind as a whole'*.¹ In other words, any DSM payment regime must fairly compensate humankind for the loss of resources which are the Common Heritage of Mankind (CHM). To realise this goal, the ISA must balance the following objectives *'[...] (a) to ensure optimum revenues for the Authority from the proceeds of commercial production; (b) to attract investments and technology to the exploration and exploitation of the Area [...]*'. This means any payment regime should generate as much revenue as possible for the ISA, subject to the need to attract investment.
- b) Section 8(1)(b) of the Annex to the Implementation Agreement states: *'The rates of payments under the system shall be within the range of those prevailing in respect of land-based mining of the same or similar minerals in order to avoid giving deep seabed miners an artificial competitive advantage or imposing on them a competitive disadvantage'*. This is understood to mean that any DSM payment regime must not give, through a lower burden of taxation, a competitive economic advantage to DSM compared to land-based mining.
- c) Article 151(10) of UNCLOS states: *'[...] the the Assembly shall establish a system of compensation or take other measures of economic adjustment assistance including*

¹ Article 1 of UNCLOS defines the "Area" as meaning the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction.



cooperation with specialized agencies and other international organizations to assist developing countries which suffer serious adverse effects on their export earnings or economies resulting from a reduction in the price of an affected mineral or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area.' Consequently, in addition to not disadvantaging land-based mining, any DSM payment regime must also generate sufficient revenues to compensate developing countries for any fiscal harm to their land-based mining sectors that can be attributed to DSM.

To summarise, any payment regime for DSM must maximise revenues to benefit humankind, subject to the need to attract investment, without disadvantaging land-based mining, and if necessary, to compensate developing countries for loss of revenues from land-based mining resulting from DSM.

2. The Legal Basis for the Taxation of Deep-Sea Mining

UNCLOS is the constitutional document governing DSM. It establishes the International Seabed Authority (ISA, also referred to as the Authority) to regulate DSM. Specifically, Article 137(2) states that “all rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act.” One of the ISA’s responsibilities is to “provide for the equitable sharing of financial and other economic benefits derived from activities in the Area.”² To that end, it has the right to design and administer the financial terms of contracts between itself and sponsored entities, in accordance with UNCLOS and the Implementing Agreement.³

3. Proposals for a Payment Regime for Deep-Sea Mining

In determining the financial terms of contracts for DSM, Annex 8 of the 1994 Implementing Agreement suggests that the ISA consider adopting a royalty system, or a combination of a royalty and profit-sharing system. The term ‘profit-sharing’ is significant. It does not limit the ISA to profit-based taxes (e.g., corporate income tax, or some form of rent tax), but envisages a situation where it might directly share in the proceeds from DSM. This distinction is important for **Part 5**. Essentially, the ISA has substantial scope to determine an appropriate payment regime for DSM.

The OEWG prefers a royalty-based payment regime, according to the Draft Regulations. The proposed payment regime consists of an ad valorem royalty as the only significant tax. The regulations also specify two periods of commercial production, and that different royalty rates can apply in each. There was no mention of specific royalty rates, until 2020, when the ISA contracted the Massachusetts Institute of Technology Material Systems Lab (MIT) to produce a report to evaluate the payment regime options. The MIT report includes a 2%/6% royalty only payment regime as a recommended option. There is no profit share in this regime, but there are payments to a proposed environmental fund at 1% of mine revenue capped at \$500 million per mine, and various fees. The 2% royalty is applied for the first 4 years of commercial production and thereafter its rate increases to 6%. It assumes that contractors will pay corporate income tax in the sponsoring state at a rate of 25%.

² UNCLOS Article 140(2)

³ Annex. Section 8 Implementing Agreement



The Africa Group argues that the payment regime option outlined by MIT does not represent adequate compensation for the Common Heritage of Mankind; that it will result in a lower Average Effective Tax Rate (AAETR) than land-based mining; that it will not generate sufficient revenues to compensate land-based miners; and that it is regressive, meaning the ISA will collect less taxes with higher profits, and vice versa. They have made a counter proposal, with royalty rates ranging from 6.4% to 25%, and including a profit share, and excess profits share, of 30%, depending on the payment regime option (see Table 1). Sponsoring state taxes are excluded from the proposal, leaving more fiscal space to increase royalty rates, and add profit taxes, in line with comparable AAETRs for land-based mining.

So far, discussion has largely centred around a royalty only payment regime with the rate varying in time, from 2% in the first period, to 6% in the second period. This was the option recommended by the MIT report. However, there are in fact four payment regime options under consideration. All of them remain on the table.⁴ Consequently, the OEWG Workshop on a Payment Regime for Deep-Sea Mining, and this Issues Paper, will review all four. The options are briefly described in Box 1. None of them include specific rates, yet.

Box 1. Proposed payment regime options for DSM

Option 1: A fixed rate *ad valorem* only royalty. An *ad valorem* royalty is a percentage of the value of the resource extracted. This percentage is usually applied to the gross value of production without accounting for production costs and is the most common form of royalty (see Figure 1).⁵ *Ad valorem* royalties levied at a fixed rate mean the government collects a fixed percentage of the value of production (e.g., 5%).

Option 2: A two staged (in time) *ad valorem* only royalty. As opposed to Option 1, where the royalty rate (percentage) stays the same throughout, Option 2 proposes to vary the rate, increasing it after a certain period. Presumably, the logic behind this option is that by the second period the contractor will have recovered most, or all, of its upfront costs, leaving it with more revenue available to tax.

Option 3: A combined *ad valorem* royalty and profit-based system. This is the only option that would give the ISA a share of the profits (typically revenue minus costs), as well as revenues. It is also the common approach to fiscal regime design for land-based mining, commonly referred to as the “tax/royalty” system.

Option 4: A progressive, two staged *ad valorem* royalty only. *Ad valorem* royalties levied at a progressive, or more accurately, a variable rate, provide a government with a higher fiscal take as a factor increases and vice versa. The rate is typically linked to mineral prices or production volumes.

⁴ Briefing note for the OEWG ahead of the July Council Meetings

https://isa.org.jm/files/files/documents/Briefing_Note_OEWG_13_June_2022.pdf

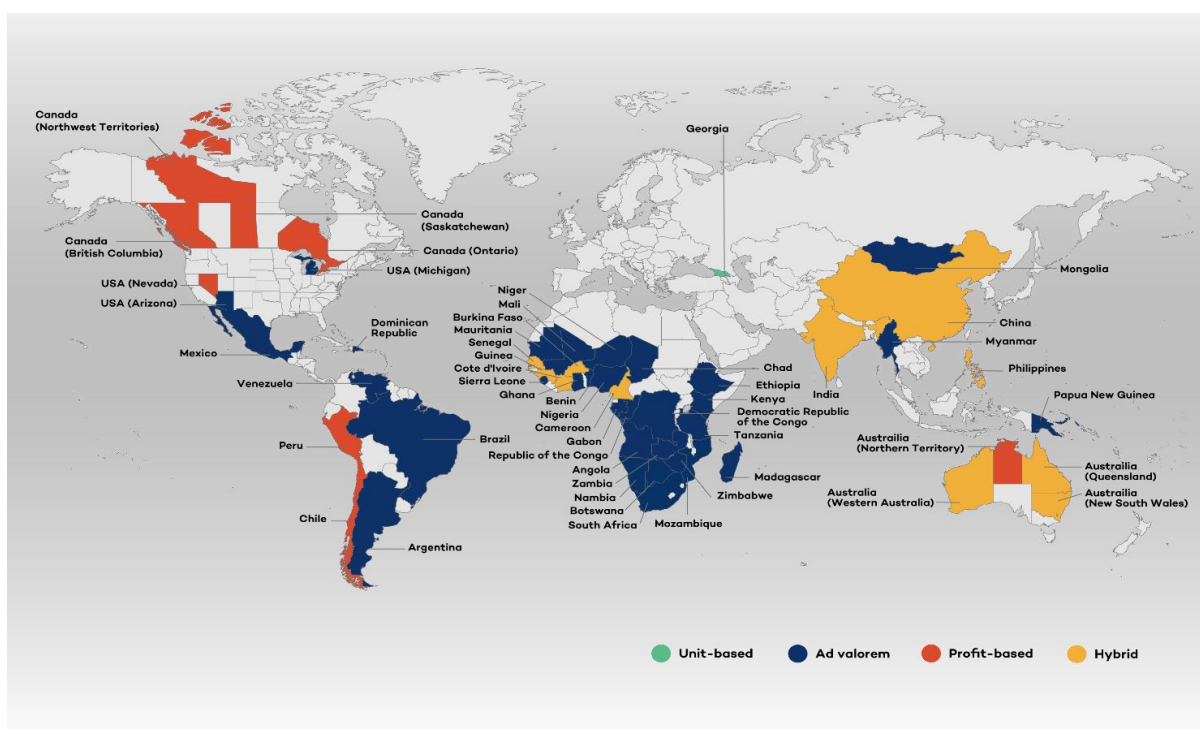
⁵ Natural Resource Governance Institute (NRGI). (2015). *Fiscal regime design. What revenues the government will be entitled to collect.* https://resourcegovernance.org/sites/default/files/nrgi_Fiscal-Regime-Design.pdf p.3



Table 1. Proposal from the Africa Group

	Royalty	Profit share
Option 1	14.4%	n/a
Option 2	First period: 6.4% Second period: 19.3%	n/a
Option 3	5%	Corporate income tax: 30% Excess profit share: 30% (hurdle rate is 12%)
Option 4	12% to 25% depending on price	n/a

Figure 1. Breakdown of land-based mineral royalty systems worldwide



Source: IGF database

4. Determining an Appropriate Level of Taxation for Deep-Sea Mining

a) A framework for designing a deep-sea mining payment regime

Before getting into a discussion of the various payment regime options, or tax rates for specific fiscal instruments, the ISA needs a framework for evaluation. What should a payment regime for DSM be trying to achieve in general? What would success look like?

The objectives of fiscal regime design for land-based mining are well established. The overarching goal is to maximise revenues for the government. In this case it is the ISA who is responsible for



maximising revenues from DSM on behalf of humankind. There are three reasons why revenue maximisation is the appropriate goal here. First, the resource is publicly owned. Minerals in the deep-sea are the Common Heritage of Mankind. Second, the resource is finite, and non-renewable. The ISA only has one chance to tax the extraction of minerals from the seabed. Third, revenues are the primary benefit from mining. This is even more pronounced for DSM than land-based mining, considering the main economic activity takes place hundreds of miles from any country or community that could potentially take advantage of other shared benefits such as employment, and infrastructure. Sponsoring states may enjoy some limited additional economic activity arising from DSM, but revenues are the primary financial benefit that humankind – the collective owners of the resource – will see.

While revenue maximisation remains the overarching goal, there are a few constraints. The most obvious is the need to attract investment in DSM. The overall level of taxation should be set as high as possible subject to the contractor being able to recover the cost of their investment, including a return to capital. What is left – the economic rent – can be taxed up to 100% without distorting investment decisions. This is the objective of investment neutrality. A neutral fiscal regime does not distort the timing and pace of extraction, re-investing, or decommissioning of a field.

The Internal Rate of Return (IRR) is a common metric used to determine the impact of a fiscal regime on investment. The MIT Report uses a theoretical IRR of 17.5%. Some have argued that this is much higher than the typical IRR a mining investor would expect to achieve. For instance, the International Monetary Fund (IMF) uses a discount rate of 12.5% in its FARI model – the gold standard for financial modelling in the extractive industry.⁶ Even if the rate is justifiably higher for DSM today given the level of uncertainty in the economics of DSM ventures, arguably it should decrease over time, with the cost of capital.⁷ We can expect the cost of capital to decrease for each DSM investment, as initial capital expenditure is paid off, and over time for DSM as a whole, as the industry matures and returns become more predictable. Furthermore, whereas land-based miners must build unique infrastructure for each deposit, seabed miners can move to the next mine relatively quickly once the ship/system is built, offering further justification for using a lower, or at least a dynamic, IRR.

The other constraints are trade-offs that depend on the ISA's preferences. The first is timing of revenues. Fiscal regimes that prioritise production-based taxes (i.e., royalties) will deliver revenue as soon as production starts, as opposed to those that rely more heavily on profit-based taxes, with more revenue coming later in the project life cycle. In a land-based mining context, governments tend to prefer fiscal regimes that deliver early revenues, that they can use to finance vital public services such as health, education, etc. While revenues from DSM will be redistributed to countries to pay for such services, providing further justification for a high level of taxation, the timing is arguably less sensitive, leaving the ISA more leeway to balance timing of revenues against other design principles such as neutrality, and progressivity.

Progressivity is a very important objective. It means the government's share of the overall proceeds adjusts automatically, according to the profitability of mining projects: increasing with high profits,

⁶ IMF FARI model pg.15

⁷ Lilford, Eric, Discount Rates and the Cost of Capital: Companies Versus Shareholders (March 21, 2022). Available at SSRN: <https://ssrn.com/abstract=4062423> or <http://dx.doi.org/10.2139/ssrn.4062423>



and vice versa. E.g., when profits increase from \$50 to \$100 the tax rate also steps up from 25% to 30%. This is especially important for metals such as copper, cobalt, and manganese that are experiencing significant price volatility due to rising demand for critical minerals. Some land-based mining countries have increased their tax rates to chase high prices. It is unlikely that this approach is sustainable. An alternative is to adopt a flexible fiscal regime that adapts automatically, such as a price-based royalty (Option 4), or variable rate corporate income tax. This should result in a more stable regime, an important objective for investors who commit significant upfront capital expenditures that may take many years to recoup. Finally, it is important to note that not all mining taxes must be progressive. Regressive taxes, such as royalties, exist to deliver early, predictable revenues. Profit taxes, on the other hand, should be progressive to maximise government revenues.⁸

The final trade-offs relate to the simplicity of the payment regime, and its robustness to profit shifting. A simple payment regime is easy to understand, communicate, and administer for both the taxpayers and the regulatory authorities. Ease of administration is especially important considering the time it will take for the ISA to build up its human and financial capacity to effectively collect payments from DSM. Profit shifting is another factor. The IMF estimates that corporate tax avoidance costs resource-rich developing countries in Africa between \$470 and \$730 million in annual tax revenues from mining.⁹ This can be minimised by designing a payment regime that is well aligned with the ISA's administrative capability and by using fiscal instruments that are less susceptible to tax base erosion and profit shifting (BEPS) (e.g., royalties versus corporate income tax). While profit-based taxes are vulnerable to BEPS, they can be made more robust (see **Part 5**), which may be advantageous considering the need to balance other objectives such as investment neutrality. These measures can be further buttressed by key anti-BEPS measures in the Draft Regulations, and the model exploitation agreement.

b) Defining the 'International Seabed Authority's take' from deep-sea mining

What is the 'government take' (Average Effective Tax Rate), and why should it be the primary metric when comparing payment regime options for DSM, and land-based mining fiscal regimes?

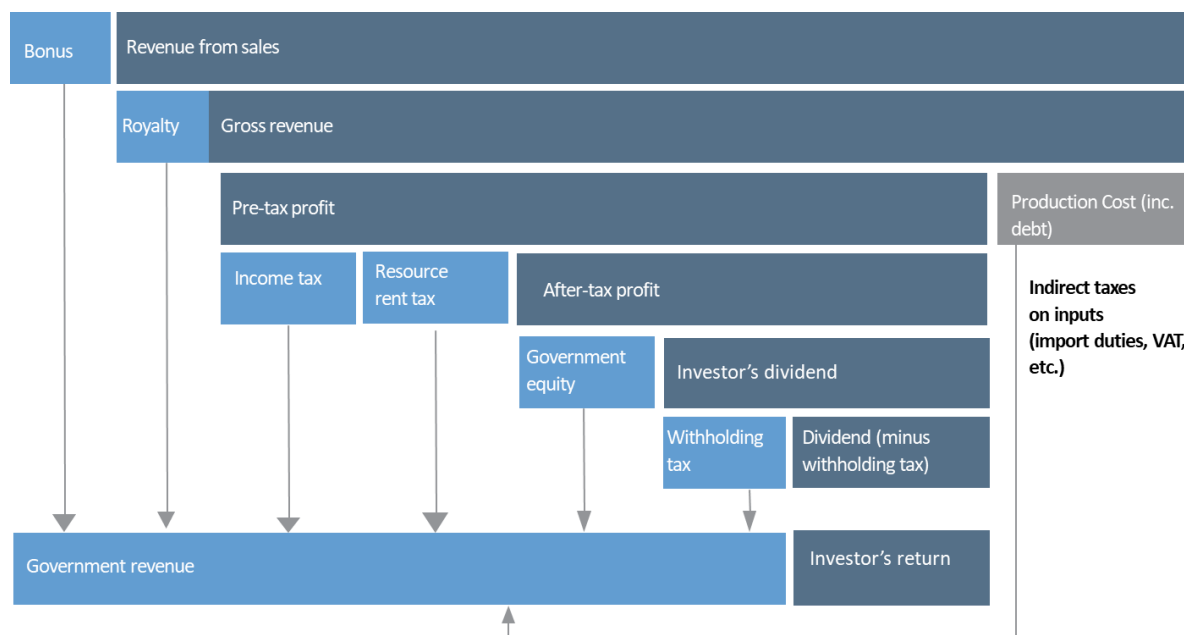
'Government take' is the total financial benefits from a land-based mining project that accrue to the host government (the country where the resource is located) over the life of a project. The level at which the host government sets the government take (e.g., 50 or 60% of net project cashflows, as an example) will depend on its policy objectives. It is likely to include corporate income taxes and royalties normally associated with land-based mining, as well as other taxes and fees, such as customs duties, export taxes etc (see Figure 2). This total financial contribution to a country's economy is the 'government take'. It may also be called the Average Effective Tax Rate (AETR).

⁸ Wen, Jean Francois, (2018) *'Progressive Taxation of Extractive Resources as Second-Best Optimal Policy'* <https://www.imf.org/en/Publications/WP/Issues/2018/06/13/Progressive-Taxation-of-Extractive-Resources-as-Second-Best-Optimal-Policy-45923>

⁹ Devlin, Dan, et al., (2021) *'Tax Avoidance in Sub-Saharan Africa's Mining Sector'*, International Monetary Fund, available at <https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2021/09/27/Tax-Avoidance-in-Sub-Saharan-Africas-Mining-Sector-464850>



Figure 2. Typical land-based extractive industry fiscal regime



Source: Natural Resource Governance Institute

Investors compare the government take when making decisions about where to invest. It is also the number that governments of land-based mining countries use to compare themselves, both in terms of competitiveness, and whether they are getting a good deal. The rates of specific taxes that make up the government take are also relevant to compare. For example, investors with tight margins might be less able to absorb high royalty rates, and for that reason invest elsewhere. However, to compare these rates in isolation from the whole fiscal package is meaningless from an economic standpoint. The royalty rate could be lower in another country, but the government take, and hence overall burden of taxation, higher because of other taxes which are applied. An AETR benchmark is also very sensitive to the assumptions in the model used – in this case there is considerable uncertainty regarding nodule prices and contractors' costs.

The ISA could consider starting the process of designing a payment regime by setting a target AETR, or range of AETRs, noting that there is limited information regarding the costs and/or profitability of DSM projects. The target would be based on its policy objectives, administrative capacity, and comparability with land-based mining (see below). It would then determine the appropriate tax mix, and specific tax rates, to achieve the target AETR.

What should the target Average Effective Tax Rate for deep-sea mining be?

Section 8(1)(b) of the Annex to the Implementation Agreement states: *'The rates of payments under the system shall be within the range of those prevailing in respect of land-based mining of the same or similar minerals in order to avoid giving deep seabed miners an artificial competitive advantage or imposing on them a competitive disadvantage'*. The Agreement does not define the term 'rates of



payments'. Others have interpreted this as meaning the AETR, meaning that the AETR for DSM should be at least within range of the Average Effective Tax Rate (AETR) of land-based mining.¹⁰

The AETR for land-based mining is typically between 40 and 50%. Several studies have concluded that it is between 46% and 49%.¹¹ On the African continent, the AETRs for land-based mining in 21 jurisdictions in 2018 were between 27.% and 52.2%. Between 2016 and 2018, the average of the AETRs increased from 42.7% to 43.8% and the median from 41.5% to 46.2%.¹² These ranges should not be treated as a ceiling for DSM, the AETR could be higher.

There may be good reasons to set a higher target AETR for DSM. Whereas land-based mining countries must compensate their citizens for the loss of their non-renewable resources, DSM must generate enough revenue to compensate the whole of humankind, as well as negative fiscal impacts on land-based mining countries, including those with higher levels of taxation. For example, the AETR for mining in Chad and Tanzania is 52.2% and 51.7%, respectively. Anything lower than this and they may be negatively impacted by DSM.

Finally, land-based mining countries collect other taxes not typically factored into the AETR for mining, but that make up a significant share of the economic benefits (see Figure 2). Payroll taxes and indirect taxes derived from economic activities around the mine, make up a large share of payments to governments. In Zambia, for example, payroll taxes were 14.6% of government revenues from mining in 2017. There is also the potential for significant economic benefits from indirect upstream and downstream activities. This raises two issues. First, any comparison with land-based mining fails to capture the whole picture of what host governments receive from mining. This includes the MIT model. Secondly, it exposes a gap in the proposed payment regime for DSM. There is no plan for the ISA to tax the salaries of workers in the Area, or those providing services remotely; likewise, goods and services supplied to operations. Any target AETR for DSM should be set with this incomparability in mind.

Should sponsoring state taxes be included in the target 'government take' for deep-sea mining?

What taxes are in, or out, of the target AETR for DSM affects its comparability with land-based mining. The most material item is the corporate income tax (CIT) which contractors must pay to the sponsoring state. Sponsoring states are a key stakeholder in the DSM management process. According to Article 153(2)(b) of UNCLOS, non-state actors can only file an application for a mining license if they are sponsored by a state. This 'sponsoring state' is responsible to ensure that the contractor complies with the terms of its contract and its obligations under UNCLOS.¹³

In return, sponsoring states are entitled to collect CIT from contractors. It is expected that they will use at least of some of this revenue to help finance their monitoring activities. The MIT Model uses a

¹⁰ Wilde, Daniel, (2022) 'An Evaluation of the Payment Regime for Deep Seabed Polymetallic Nodule Mining in the Area' in *Perspectives on Deep Sea Mining*, Springer, pg.544

¹¹ Ibid pg.546

¹² Bouterige, Yannick, et al., (2020) 'Mining Taxation in Africa: What Recent Evolution in 2018?', FERDI / ICTD available at https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15184/ICTD_SummaryBrief_21_Online.pdf?sequence=1&isAllowed=y.

¹³ UNCLOS Article 139



rate of 25% CIT (the average across sponsoring states). This has a material impact on the target AETR for DSM. If we include CIT paid to the sponsoring state, the AETR for DSM is 43%, slightly lower, but broadly in-line with the AETR for mining. When it is excluded, the AETR drops to 27%. Evidently, CIT takes up much of the fiscal space, putting downwards pressure on how much the ISA can tax contractors, and subsequent revenue flows.

The Africa Group, and other commentators, have questioned whether sponsoring state taxes should be included in the target AETR. They express two main concerns:¹⁴

- 1. Sponsoring states charge contractors low, or no CIT.** There are sponsorship agreements that exempt CIT altogether. This highlights the risk of ‘forum shopping’: contractors choosing a low tax sponsoring state to reduce their global tax bill. Whereas land-based miners are confined to the country where the resource is, and the tax regime that applies there, deep-sea miners are much more mobile and can base themselves wherever taxes are lowest.¹⁵ This could lead to a ‘race to the bottom’ effect in terms of sponsoring states setting low, or no CIT for DSM sponsored activity.
- 2. Sponsoring states and contractors fail to disclose the sponsorship agreements, making it impossible to know whether CIT is being charged, and at what level.** This lack of contract transparency makes it impossible to determine the overall tax burden that contractors face. The ISA may find it hard to guarantee the sustainability of a payment regime that is premised on a target AETR that cannot be verified in many cases.

Some commentators have argued that there is a higher-order consideration regarding sponsoring state taxes, and that is whether CIT overcompensates states for their compliance role. Each state will be different in terms of the effort that they put into monitoring contractors. Clearly, they should receive some financial benefit for taking on this responsibility, and to incentivise effective oversight. However, CIT typically represents the lion’s share of the proceeds from land-based mining (see Figure 3). They question whether this should flow to sponsoring states, or the ISA. Sponsoring states perform a relatively routine role, plus they bear no legal liability for contractors’ infringements so long as they have taken reasonable steps to ensure compliance.¹⁶ With risk comes reward, and sponsoring states seem to assume limited risk in the DSM management process.

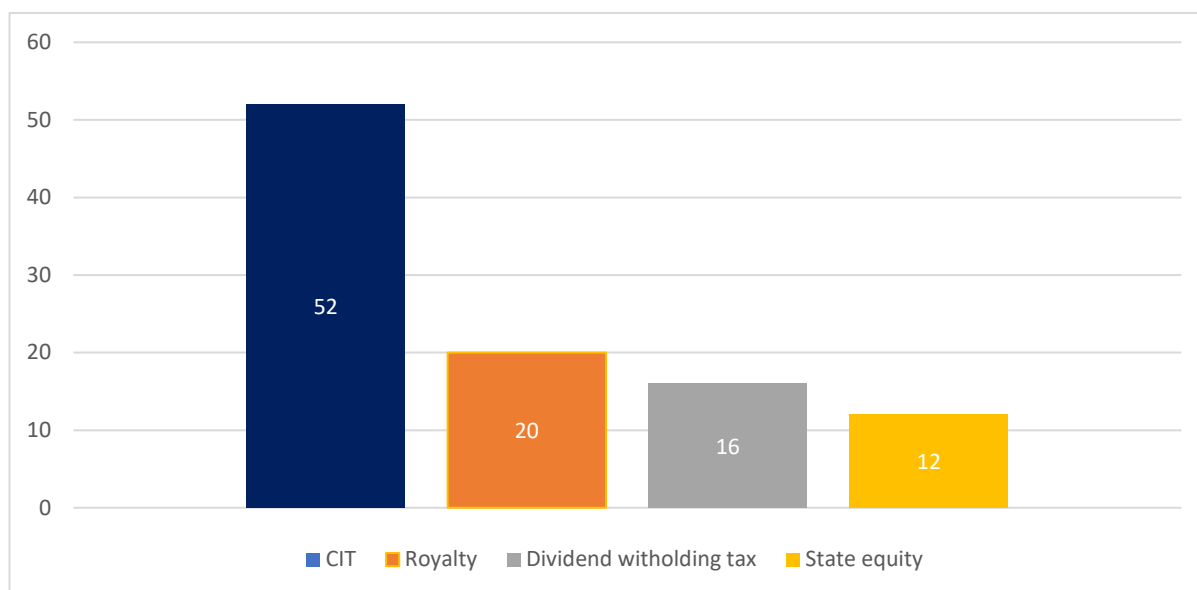
¹⁴ Some commentators argue that there is a further, higher-order consideration regarding sponsoring state taxes, and that is whether CIT overcompensates states for their compliance role (Wilde, 2022, pg.543). CIT typically represents the lion’s share of the proceeds from the extraction of natural resources. However, since sponsoring states seem unlikely to generate any meaningful revenues from CIT, this concern is probably unnecessary.

¹⁵ Ibid pg.542

¹⁶ ITLOS, *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area*, Advisory Opinion, 1 February 2011, *ITLOS Reports 2011*, 10



Figure 3. Theoretical breakdown of mining revenues by instrument, based on ex-ante modelling¹⁷



Source. IMF, 2016

This raises a further, related question – where will the profits from DSM be attributed? In other words, who *should* have the right to tax the profits from DSM? The emphasis on sponsoring state taxes seems to indicate an assumption that the profits from DSM will be booked and taxed in the sponsoring state. However, in the absence of a specific legal directive, it is unclear whether this will be the case.

Permanent establishment (PE) is the cornerstone of international taxation. It means that the business profits of an enterprise resident in Country A are only taxable in Country B if the enterprise has a PE in Country B, and *only to the extent that the profits are attributable* to that PE. For the enterprise to have a PE it must meet certain requirements, namely, having a fixed place of business. It is likely that contractors will have a PE in the sponsoring state. To be a sponsoring state, a country must share the same nationality as the sponsored entity, and exercise effective control over it. Currently, the ISA determines “effective control” by incorporation of a contractor. Either way a contractor is likely to be a resident for tax purposes, giving the sponsored state the right to tax profits attributed to the PE.

However, the contractor may also have PEs in other countries. These countries have a right to tax the profits from any economic activity that the contractor carries out in their jurisdiction. For most sponsoring states, particularly small island nations, this is likely to be very little. However, it is not clear why any of these countries should have a right to directly tax the profits from mining a resource that is outside their jurisdiction. It is important to emphasize that we are focussed on the profits from mining (extracting the resource), as opposed to profits arising from other activities (e.g., processing) that might reasonably occur (and be taxed) in other states.

¹⁷ The IMF FARI model is based on 5% royalty on gross sales, 30% CIT, and 10% free state equity. Two alternative regimes included in the model are an additional profits tax and a tax on rent.



Arguably, the ISA has the strongest claim to the profits from the extraction of minerals in the Area. They are the Common Heritage of Humankind. If the ISA were to have a profit-based payment regime, one challenge would be to work out precisely what portion of contractors' profits relate to mining (and should therefore be taxed by the ISA) versus other business activities. The simplest option would be to use a formula to allocate contractors' global profits between the different jurisdictions. The United States uses this approach to apportion company profits across states. We explore this idea in more detail in **Part 5c**.

Will the 'government take' from deep-sea mining be sufficient to compensate for negative impacts on land-based mining countries?

The ISA is legally obligated to compensate developing countries that suffer negative economic effects resulting from DSM. Specifically, a drop in the price of an affected mineral, or in the volume of exports of that mineral. Some commentators have raised concerns that the proposed payment regime will not raise enough funds to provide for compensation if needed. It is difficult to determine with any real accuracy what 'enough' is in this instance. The MIT Report suggests that an increase in the supply of manganese from DSM may cause the price to drop, but this is unlikely for copper and cobalt. We cannot offer any new analysis in this regard, however there are two issues for consideration.

It is likely to be exceedingly difficult to attribute a change in mineral prices, or volume, to any one event. While supply is a key factor in determining mineral prices, it is not the only one. Changes in technologies – for example the technology in batteries for energy storage – will also have major – and in some cases, still unforeseen – impacts on future demand for cobalt, copper, and manganese, and therefore on prices. It may not be possible to trace a drop in price, or demand, back to an increase in supply from DSM. Even if an adverse impact can be attributed to DSM, there are questions about what benchmark to use to calculate the compensation due – prices today, five years ago etc.

Considering the difficulty of determining precisely how much compensation may be required in future, the ISA could make this an explicit condition for triggering a review of the DSM payment regime. The Implementation Agreement states that "the system of payments may be revised periodically in the light of changing circumstances." Questions of attribution and measurement would remain relevant to determining a payment regime, but at least the answers could wait until there is more information on the precise impacts of DSM on land-based mining.



5. Achieving an Appropriate Level of Taxation of Deep-Sea Mining

a) The target AETR will have a material impact on the choice of payment regime

All payment regime options can be designed to achieve the same AETR over the life cycle of a DSM project with a given set of economic assumptions. But profitability levels are not constant across all projects, and time-periods. In reality, profitability levels change, in which case unless the chosen payment regime includes progressive elements, the actual ETR may end up being very different to the target ETR. For example, under Option 1 or Option 2, a project that is not very profitable will have a higher ETR than a project that is very profitable. The only payment regime that will adjust to the changing circumstances is a profit-based one. Consequently, the payment regime cannot be determined in isolation from the target ETR (or range of ETRs bearing in mind that each project is different).

Assuming that sponsoring state taxes are excluded, and the target AETR remains somewhere between 40 and 50%, the other fiscal instruments that comprise the payment regime will need to do the work to make up the shortfall. The counter proposal by the Africa Group clearly demonstrates the impact of excluding sponsoring state taxes on the rates of other fiscal instruments in the four payment regime options (Table 1).

Table 1. Proposal from the Africa Group

	Royalty	Profit share
Option 1	14.4%	n/a
Option 2	First period: 6.4% Second period: 19.3%	n/a
Option 3	5%	Corporate income tax: 30% Excess profit share: 30% (hurdle rate is 12%)
Option 4	12% to 25% depending on price	n/a

Except for option three, removing sponsoring state taxes increases royalty rates dramatically. Rates this high, for fixed rate or ad valorem royalties (as opposed to profit-based royalties), are not common in land-based mining. The typical rate for ad valorem royalties in the minerals sector is between 2% and 6% of gross sales.¹⁸ This is because royalties are regressive. They must be paid as soon as mineral production starts, irrespective of the profitability of the mine. As such, they increase the cost per unit of metal mined (“cut-off grade”),¹⁹ which, depending on the project economics, may result in valuable resources being left in the ground. Royalties can be made more progressive, for example options two and four, however at these rates, many investments in DSM would likely be unviable.

¹⁸ Highest are around 10-15 % (e.g. Coal in Colombia) but this is less common.

¹⁹ “Cut-off grade” is the minimum grade required in order for a mineral or metal to be economically mined. Material found to be above this grade is considered to be ore, while material below this grade is considered to be waste.



Under option three, however, the ISA can maintain a relatively low royalty rate (but still comparable to land-based mining) because it is not the only significant tax. There are two additional profit taxes. The rates can be set much higher than for royalties because companies only pay profit taxes once they are profitable. This model is most like land-based mining tax systems, which typically combine CIT (paid to the host country) and royalties – the two pillars of the so-called “tax/royalty fiscal regime.” Some countries have introduced windfall or excess profit taxes and, in some cases, repealed them afterwards. They are reappearing in some African countries.²⁰ Windfall profits could be a trigger to review the payment regime, although it would be preferable to choose a payment regime that is sufficiently flexible from the outset, to avoid creating instability for contractors.

In summary, the choice of payment regime depends, in part, on the target AETR, and how sponsoring state taxes are treated. If the latter are excluded, it may be difficult to maintain a royalty only regime since the rates would need to be set very high to achieve the desired AETR. Some form of profit share may be necessary to deliver a regime that is viable for investors while also achieving an appropriate return for humankind. **Part 5** contemplates options for a simplified profit share.

b) Evaluating the proposed payment regime options

This section briefly compares the four payment regimes from a qualitative perspective, drawing upon the framework for mining fiscal regime design in **Part 4**. Key qualitative differences between these types of payment regimes are set out in Table 3.

Option 1: Fixed rate ad valorem royalty

Ad valorem royalties levied at a fixed rate mean the ISA collects a fixed percentage of the value of production (e.g., 5%). The main advantage of a fixed rate royalty is revenue stability and lower administration and compliance costs compared to a variable rate. The disadvantage, however, is that the ISA’s fiscal take does not adjust to reflect changes in profitability or other factors that the ISA may consider to be important, for example, level of value addition.

Option 2: Variable rate ad valorem royalty (time-period)

Ad valorem royalties levied at a variable rate provide a government with a higher fiscal take as a factor increases and vice versa. The factor is time in this case. A variable rate royalty is more progressive than a fixed rate royalty, with the ISA’s share increasing with the number of years of production. However, there are a few potential challenges with this approach.

First, DSM has different forms of mining, with potentially different timeframes. The collection of nodules involves picking up what is on the ocean floor and moving onto the next location, making production relatively short. This may be different to the mining of cobalt-rich ferromanganese, or vents. The point is that there may be different production profiles for DSM in which case setting a time-based royalty may unfairly disadvantage some projects, and benefit others.

²⁰ Bouterige, Yannick, et al., (2020) ‘Mining Taxation in Africa: What Recent Evolution in 2018?’, FERDI / ICTD available at https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15184/ICTD_SummaryBrief_21_Online.pdf?sequence=1&isAllowed=y.



Secondly, “cliff edge” fiscal changes are vulnerable to abuse by investors, particularly high-grading. “High-grading” involves companies increasing the rate of extraction or preferentially extracting high-grade ore compared to what they would otherwise do absent fiscal considerations. The result is that the amount of royalty, or tax relief, is well above that originally envisioned by the resource owner. It could also result in contractors leaving deposits behind, resulting in a lost opportunity for the Common Heritage of Mankind. High-grading is most likely to occur when the relief is time-limited (e.g., the royalty is 2% for the first five years, stepping up to 6% thereafter) and unconstrained (i.e., not linked to the level of production, or other indicators). In practice, it is very difficult to definitively establish high grading. It is also unclear how feasible it is for deep-sea miners to selectively pick nodules based on their grade.

Notwithstanding, if the ISA chooses Option 2, it will need to ensure a thorough technical review of mining plans at the time development plans are approved and carry out monitoring of actual production against these. In addition to high grading, there could also be greater incentive to rush production. This could be at the expense of a precautionary approach, and monitoring of environmental impacts.

Option 3: Variable rate ad valorem royalty (price-based) and profit share

The advantage of this model is that it combines a royalty and a profit share. A royalty is relatively easy to administer, and provides early, predictable revenue. A profit share captures an important share of profitable businesses, while sparing loss-making entities, thereby encouraging investment and economic activity. This model makes it possible to achieve the target AETR while keeping royalties at a manageable level for contractors. It is hard to see how this balance could be achieved under any of the other payment regime options.

However, there are risks to relying on a profit share, specifically profit-based taxes. Compared to royalties, revenues from profit taxes are likely to be delayed, although arguably less so than in land-based mining where construction and payback periods are considerably longer than in DSM.²¹ Profit taxes also lack stability and predictability. They can be complicated to administer, prone to poorly designed tax incentives, and vulnerable to profit shifting. Consequently, land-based mining countries tend to collect a much smaller proportion of CIT in practice and rely more heavily on royalties (Natural Resources Governance Institute, 2019).

Some commentators have raised specific concerns regarding the use of profit taxes in a DSM context. They argue that the ISA lacks the capacity to effectively administer profit taxes. They also point out the ISA’s lack of tax treaty network, which can be an important avenue for double tax relief, and cross-border dispute settlement, although not the only one. Finally, there is the complication of state-owned enterprises which may be able to operate at a loss, and as such pay no tax. These are valid concerns, but not insurmountable as **Part 5c** will demonstrate.

Option 4: Variable rate royalty (price-based)

Fixed-rate royalties are most common. Increasingly, however, countries are adopting price-based royalties. There are two advantages of a price-based variable royalty. First, it is more progressive than a fixed rate royalty—the ISA’s share increases automatically when prices rise. Second, it is easy

²¹ The MIT report estimates 3 years for construction, and 2 years for production ramp up.



to communicate to the public: citizens like to see royalties increase with prices. Price-based royalties are slightly more complex than fixed-rate royalties but still relatively easy to administer compared to a profit-based tax such as corporate income tax or a rent tax.

However, price-based royalties are only sensitive to a company’s profitability assuming profits track prices. In land-based mining, costs tend to increase with mineral prices, because higher prices generate higher mining activity and higher demand for the inputs required (workers, chemicals, machinery, etc.), so profits may not increase as much as they would if costs remained constant. This is why price-based royalties in land-based mining should have an upper limit. It is unclear if deep sea mining costs will be as sensitive to prices as land-based mining costs. If they are not, then a price-based royalty with rates that increase steeply with prices could be an attractive option to create progressivity in the fiscal regime.

One risk of price-based royalties is that they may provide an economic incentive for mining companies to deliberately understate the value and price of minerals to avoid moving into the higher royalty rate band. This risk is especially acute in the context of related-party transactions. It is possible to minimize this risk by requiring taxpayers to use the publicly quoted benchmark price as the base for calculating the royalty, rather than the price registered by the investor. Another downside of variable rate royalties is that they are more complex to administer than a fixed rate *ad valorem* royalty - the price bands and rates have to be set for each mineral and may need to be updated when market conditions change. **Part 5c** provides further detail on designing a price-based royalty.

Table 3. Summary of Advantages and Disadvantages of the Four Payment Regime Options

Options	Advantages	Disadvantages
Option 1: Fixed Rate	<ul style="list-style-type: none"> • Of the proposed royalty options, this one is the easier to administer (e.g., no need to monitor price to determine rate) • Lower compliance costs. • Revenue stability. 	<ul style="list-style-type: none"> • Government take does not adjust to reflect changes in profitability.
Option 2: Variable rate (time-period)	<ul style="list-style-type: none"> • Potentially less regressive than a fixed rate royalty (depends on time-profits correlation). • Easier to administer than a price-based royalty. 	<ul style="list-style-type: none"> • Cliff edges make it vulnerable to abuse e.g., high grading. • Potentially less progressive than a price-based royalty.
Option 3: Variable rate (price based) and profit share	<ul style="list-style-type: none"> • Combines an early, predictable source of revenue with a share of the profits. • Most progressive option. Profit share is only due when a contractor is making profits. 	<ul style="list-style-type: none"> • Profit share may be complex to administer. • Revenues may be delayed. • Vulnerable to profit shifting.



<p>Option 4: Variable rate royalty (price- based)</p>	<ul style="list-style-type: none"> • Government’s share increases automatically when prices rise. • Easy to communicate to the public: citizens like to see royalties increase with prices. • Sensitive to a company’s profitability, assuming profits track prices. 	<ul style="list-style-type: none"> • Companies may understate the value and price of minerals to avoid moving into the higher royalty band. Can be addressed by using benchmark prices. • More complex to administer: need to monitor prices to determine rate.
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c) Options to strengthen payment regime options three and four

i. Simplified approaches to profit-based taxation

Many stakeholders have raised valid concerns about the practicality of including a profit share as part of the DSM payment regime. Collecting profit taxes is challenging. However, there are several policy approaches used by land-based mining countries, that could simplify this task and safeguard revenues.

Formulary apportionment

The ISA could adopt the method of formulary apportionment to determine how much of the profits from DSM each jurisdiction gets to tax. Formulary apportionment allocates a multinational corporation’s total worldwide profit (or loss) across the jurisdictions in which it operates, based on some formula proxying the extent of activities in each.²² The formula usually discussed involves three allocation factors: destination-based sales, assets, and payroll in that jurisdiction.

The United States uses this approach to allocate the profits of companies operating in multiple states. Some states, such as Alaska, have adapted the traditional formula to suit their extractive industries, adding a ‘production volume’ factor (number of barrels of oil produced). Consequently, multinational oil and gas companies operating in Alaska are taxed on a consolidated basis according to the proportion of destination-based sales, assets, and number of barrels of oil produced in Alaska.

The advantage of formulary apportionment is that it dispenses with the need to identify arm’s length prices for intra-company transactions. It assumes that the income of a firm is earned by that firm as a whole and does not attempt to quantify how much of it could be said to have been earned by any of the component parts. Instead, income is apportioned by a formula using factors which quantify the actual geographical location of the firm’s activities: the real economic activities in each place where they happen. Formulary apportionment also avoids the need for double tax relief since jurisdictions agree upfront how much of the profits each gets to tax. There is no double taxation.

The main decision for the ISA would be to determine an appropriate allocation formula for DSM. Ideally, this formula would be agreed among all states applying this approach to affiliates of the

²² Picciotto, Sol (2012) *Towards Unitary Taxation of Transnational Corporations* (London: Tax Justice Network) is available at <https://www.taxjustice.net/wp-content/uploads/2013/04/Towards-Unitary-Taxation-Picciotto-2012.pdf>



same contractors.²³ Once the formula is determined, the ISA, and other jurisdictions can choose to tax their share of the contractor’s global profits however they wish, either through CIT, or other profit taxes. The process of collecting CIT is administratively much simpler having pre-defined the tax base, thus avoiding the need to apply transfer pricing rules, and the possibility of lengthy tax audits.

Profit-based tax system reinforced with special transfer pricing rules and a profit split

Alternatively, the ISA may choose to collect CIT without using formulary apportionment to determine the tax base. In this case it would be prudent to adopt the following measures to guard against transfer pricing abuse, simplify administration, ensure a predictable level of revenue, and limit the potential for double taxation.

1. Deem the profits from mining to be sourced in the Area, giving ISA exclusive taxing rights

This first step is necessary to ensure that the profits from mining are not booked outside the Area, leaving the ISA with nothing to tax (see previous discussion regarding the legal and moral bases for sponsoring states to tax profits). The term ‘mining’ would need to be carefully defined in the Mining Code to avoid ambiguity regarding the delineation of mining profits.²⁴

2. Adopt special transfer pricing rules to limit profit shifting, and simplify administration

Table 4. Special transfer pricing rules for the mining sector

Transfer pricing risk	Legislative response
Under-pricing of related party mineral sales	Require contractors to use benchmark prices (i.e., London Metals Exchange) to calculate related party mineral sales. Limit any adjustments to the benchmark price to quality differences.
Over-pricing of goods and services provided by related parties	Related party loans are a major source of profit shifting in the mining sector. OECD BEPS Action 4 recommends limiting the deduction of interest expense to a percentage of earnings before tax (e.g., 30%). This limits the impact of excess interest deductions on the tax base. Similarly, some countries limit the deduction of management fees to a percentage of operating expenses.

While these special transfer pricing rules greatly simplify the collection of CIT, it is likely that the ISA would still need to audit contractors from time-to-time. The ISA could progressively build its own capacity, and request technical assistance from organisations such as the IMF, World Bank, OECD, and IGF. Also, Tax Inspectors Without Borders (TIWB) is a UNDP and OECD initiative providing hands-on support to governments to carry out tax audits, with big results.²⁵ It could be a good option for

²³ Agreement is also not essential. The ISA could unilaterally adopt a formula that is likely to be acceptable to others, to limit the risk of double taxation, and the potential for disputes.

²⁴ See the OECD’s approach to defining the carve out for extractives from Pillar 1 of the global tax reforms.

²⁵ OECD, IGF, (2022) *Tackling multinational tax avoidance in Mongolia from building modern legal frameworks and mining industry expertise to a major audit outcome*, available at <https://www.oecd.org/tax/tax-global/tackling-multinational-tax-avoidance-in-mongolia.pdf>



the ISA to receive direct assistance to carry out tax audits of contractors. Alternatively, it could outsource this function to an audit firm, temporarily or permanently.

3. Profit split

There are now several fiscal regimes across the world that require the government to receive a specified share of the profits that a mine generates. These regimes are still based on the payment of royalties and corporate income tax, but then require an additional payment if the government share of profits is below the stipulated threshold. This threshold is 50 percent or higher for the regimes that have this feature (Tanzania, Philippines, and Ecuador).

The way this regime works in the Philippines, as one example, is that the investor pays the “basic government share” throughout the life of the project. During the recovery period (five years from the start of production), the basic government share comprises excise tax, royalties and local business tax. After the recovery period, the basic government share includes these taxes as well as import duties, corporate income tax, and withholding taxes on interest and dividends. If, at any stage, the basic government share is less than 50 percent of net mining revenue,²⁶ an “additional government share” must be paid by the investor to increase the total government share to 50 percent of net mining revenue.

The advantage of this approach is that it could provide the ISA with more revenue certainty. While DSM profits still depend on volatile and difficult-to-measure revenues and costs, the share of those profits is based on a simple percentage rather than a combination of different and interacting instruments. This should also make the payment regime easier to communicate to the public. And given the ISA receiving at least 50 percent of economic benefits sounds inherently fair, it might be more likely to engender public trust.

To summarise, the combination of fiscal instruments that make up the ISA’s share would stay the same (some combination of profit tax and royalty), but the expectation is that the revenue from these taxes would amount to 50% of the proceeds from the project, and if not, the contractor would pay an additional amount to ‘level up’.

4. Provide unilateral double tax relief in the Mining Code

There is also the issue of double tax relief. While double tax treaties are an important vehicle for relieving double taxation, they are not the only one. Most countries provide some level of relief from double taxation unilaterally. Many cases of residence-source juridical double taxation can therefore be eliminated through domestic provisions (ordinarily in the form of either the exemption or a credit method) which operate without the need for tax treaties.²⁷ The ISA could provide for double tax relief in the Mining Code, leaving any remaining disputes between States, or contractors, and the ISA to be settled through the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea.²⁸

²⁶ Net mining revenue is sales revenue (net of transport and processing charges) minus deductible expenses.

²⁷ Platform for Collaboration on Tax (PCT), (2021), Toolkit on Tax Treaty Negotiations, pg. 11, available at https://www.tax-platform.org/sites/pct/files/publications/The%20Toolkit%20on%20Tax%20Treaty%20Negotiations%20Toolkit_Updated%20052021.pdf

²⁸ UNCLOS Article 187



Box 2. Profit-based taxes and state-owned enterprises

Some commentators have raised the issue of state-owned enterprises (SOEs) as a potential challenge to profit taxes. They argue that 1) SOEs may be able to mine regardless of profit given the supply chain benefits to the host country, leaving the ISA with nothing to tax under a profit-based system; and 2) that this would disproportionately impact private contractors who must turn a profit to remain operational, and would therefore be required to pay tax on said profits.

On the first argument, while it is true that SOEs may be able to operate at a loss overall, there is no reason why they should be unprofitable at the project-level, unless DSM is unprofitable, which seems unlikely. If they are ‘unprofitable’ at a project-level then it is probably because of transfer pricing issues (i.e., selling the minerals back to themselves, or another government entity, at below market prices, to reduce their taxable profit to pay less tax). The solution is to apply the transfer pricing rules in Table 4 to all contractors, be they SOEs or privately owned.

Addressing transfer pricing issues should resolve the equity issue between SOEs and privately owned contractors. If, however, SOEs are genuinely unprofitable at the project-level it is not clear why this would be to their advantage over private contractors. They pay no tax, but they also make no profit. If SOEs can in fact sustain losses for longer, a profit-based system would be to the advantage of private contractors since royalties eat into early cashflows.

Finally, if commentators are concerned about the potential dominance of SOEs in DSM then tax is not the way to address this. This issue is better addressed through anti-trust and competition law.

ii. Design considerations for price-based royalties

Price-based royalties need to be designed with care, and updated at regular intervals, because of changing market conditions. There are specific considerations for Option 4 described above.

First, it is important to choose how the different rates apply to the base. There are three options: aggregate, marginal or sliding scale. Under the aggregate approach, once a price increase triggers a rate increase, the higher rate applies to the whole royalty base (gross revenue). This is the most commonly used approach in land-based mining, but companies face steep changes in payments around the limits of the price bands, also known as “cliff edges”. A marginal approach removes this problem, as the increased rate in a price band would only apply to the share of the value of production attributable to the price above the limit of the previous band. A sliding scale is based on a formula that determine the applicable rate of royalty, within a range of royalty rates bound by minimum and maximum rates. Either the marginal or sliding scale approaches are better design options but may be harder to communicate to the public.

A second challenge for price-based royalties is the long-term increase in prices that do not reflect a temporary windfall, but the normal effect of inflation which affects both mineral prices and costs. Over a long period of time, original price bands are unlikely to reflect contemporaneous market



conditions and the top royalty rates become applicable for prices across the whole price cycle. To address this challenge, the ISA might either create a rule that automatically adjusts price-based royalty bands yearly with a measure of inflation (such as the US consumer price index) , or regularly legislate changes to the royalty bands, e.g. every 10 years.

Third, not all minerals are equally served by a price-based royalty. For some primary minerals, there is a strong correlation between prices and costs, and the scale of a price-based royalty would have to remain modest to be viable. However, this price-cost correlation might not be such a problem if the variable royalty is levied on a by-product metal. For example, in land-based mining, antimony as the by-product of some lead ores, or cobalt as the by-product in the extraction of some copper or nickel ores. Investment decisions are less sensitive to the price of a by-product, and in turn less sensitive to the royalty rate on this by-product. Changes to the prices of mining inputs, from tires to engineers, also generally reflect the rise and fall in the demand of the major metals, because all mines try to raise output when prices are high, and vice-versa. But changes in the prices of by-products do not have the same effect, because they typically would not justify increasing mineral output of the primary product. As described in the previous section, it is also possible that deep sea mining costs do not rise with mineral prices to the same extent that land based mining costs do. Depending on the type of mining operations in the deep sea, and the composition of mineral production, price-based royalties can be designed specifically for different types of ores and metals.

Finally, it will be necessary to establish testing and assaying facilities to verify the grade and value of the minerals. This is important regardless of which payment regime option is chosen. The testing facilities could be in sponsoring states, although this depends on whether any of the minerals will be shipped or processed there, plus there could be a conflict of interest if the contractor is an SOE. Alternatively, the ISA could require contractors to use an internationally accredited third-party mineral inspection firm and submit the results. This issue is covered in detail in IGF's practice note on [monitoring the value of mineral exports](#).

6. International Tax and Other Issues

a) Taxation of subcontractors operating in the Area

So far, this paper has focussed on the payment regime that will underpin the financial terms of contracts between the ISA and sponsored entities. However, the ISA's responsibility regarding taxation, is potentially much broader than this. It is to "provide for the equitable sharing of financial and other economic benefits derived from *activities in the Area*."²⁹ "Activities in the Area" means all activities for the exploration for, and exploitation of, the resources of the Area."³⁰ This conceivably includes activities carried out by subcontractors, which, industry points out, will be needed to help sponsored entities carry out their DSM operations.³¹

The profits subcontractors earn from their involvement in DSM could be very material. A report by the Natural Resource Governance Institute found that between 2008 and 2017, mining, and oil and

²⁹ UNCLOS Article 140(2)

³⁰ UNCLOS Article 1(1)(3)

³¹ Industry Position Paper March 2020 ISA Royalty Regime



gas license holders spent, on average, just under a trillion dollars a year on suppliers.³² As it stands, the payment regime for DSM only covers sponsored entities – the license holders – ignoring the myriad actors presumably involved in the extraction of minerals from the seabed.

On the face of it, there is nothing in UNCLOS or the Implementing Agreement that precludes the ISA from taxing subcontractors. In land-based mining, subcontractors are registered and pay taxes in the country where the mine is located.³³ It seems reasonable that humankind should share in the proceeds earned by subcontractors from their involvement in the exploration and extraction of minerals in the seabed. Moreover, it would reduce the risk that contractors shift profits out of the ISA jurisdiction and towards related subcontractors based in low tax countries, to reduce their overall tax bill.

However, as mentioned in **Part 2**, the ISA is not sovereign, which means it cannot autonomously levy taxes. Further legal analysis is required to determine whether the financial terms of contracts (Section 8 of the Implementation Agreement) is broad enough to encompass direct taxation of subcontractors by the ISA. If not, an alternative would be for the ISA to require sponsored entities to collect withholding tax on gross payments to subcontractors in lieu of CIT, as many countries do for cross-border payments. Failure to withhold tax could result in a contractor forfeiting its license.

The ISA could also explore another option to prevent profit shifting through subcontractors. It could define a ring-fenced project, modelled after oil and gas joint ventures. In such a project, any function performed by a subcontractor would be charged at cost, deductible for the assessment of the license-holder taxable profit. The remuneration of subcontractors above their costs would be taken out of the post-tax profit of the license-holder and would not be subject to additional tax by the ISA.³⁴ Subcontractors would be given a tax credit to use in their residence state to avoid double taxation.

b) Taxing the transfer of exploration and mining rights

The Africa Group recommends that the ISA tax the capital gains arising from the transfer, or sale, of exploration and mining rights relating to DSM.³⁵ When a company sells or transfers an asset, it can make a capital gain or a capital loss. The gain is the full amount received from the sale or transfer, minus the purchase price.

³² Pitman, Robert, Toroskainen, Kaisa, *Beneath the Surface: The Case for Oversight of Extractive Industry Suppliers*, Natural Resource Governance Institute, https://resourcegovernance.org/sites/default/files/documents/beneath_the_surface.pdf

³³ Industry Position Paper March 2020 ISA Royalty Regime. Note that taxing subcontractors has not been easy for land-based mining countries, particularly as it relates to offshore oil and gas. Compared to license holders, subcontractors are more mobile, and can easily structure their activities to avoid triggering a tax liability in the host state. For this reason, some countries adopt a lower time limit for triggering a permanent establishment in the extractives sector.

³⁴ This is similar to the no-profit rule common in oil and gas joint ventures. See Readhead, Alexandra (2018) *What Mining Can Learn from Oil: a study of special transfer pricing practices in the oil sector, and their potential application to hard rock minerals*, Centre for Global Development, available at <https://www.cgdev.org/publication/what-mining-can-learn-oil-study-special-transfer-pricing-practices-oil-sector>

³⁵ African Group Statement to the Informal Working Group on Payment Systems on 21 03 22



There are arguments for and against the taxation of capital gains.³⁶ DSM is still in its infancy, requiring significant capital in many forms, with many transactions required to make these projects operational, including farm-ins, joint ventures etc. A capital gains tax regime could complicate this. Moreover, with capital gains tax comes a step up of the value of the asset, which then depreciated over time, reducing CIT/ profit taxes over time. While land-based mining countries prefer early revenues, the ISA can take a longer view regarding the profitability of the regime.

On the other hand, most land-based mining countries have some form of capital gains tax applying domestically, and an expectation that it applies to non-residents.³⁷ Not charging tax on the transfer of rights could be major advantage for deep-sea miners, and contrary to the obligation to avoid negatively impacting land-based mining countries fiscus. There is also potentially a lot of revenue at stake. Gains from the transfer of mineral rights can be very significant, up to hundreds of millions of dollars, making it an important proposal for the ISA to consider.³⁸ One approach would be for the ISA to connect the decision to impose capital gains tax, with the decision to impose CIT, or some other profit tax. If the ISA does not tax profits, it should tax capital gains. If it does tax profits, it may be more rational to ignore capital gains.

If the ISA does choose to tax capital gains, there are two ways to do this. One is through a separate tax on capital gains, and the other is by incorporating the gain into taxable income that is subject to CIT. Either way, the ISA will need to establish the right to tax direct and indirect transfers of DSM assets. Typically, when a land-based mining asset or right or interest relating to that asset is sold, the country where the resource is located will have the right to collect capital gains tax on the sale, under both its domestic law and tax treaties. This is a “direct transfer.” In the context of DSM, the resource is in the Area, which is controlled by the ISA, giving it the right to tax the transfer or sale of the right to explore or exploit the resource.

Where the situation becomes more complex is if the asset or licence is sold indirectly through a chain of ownership. An “indirect transfer” is where the shares in the mine or shares in the foreign company that owns the mine are sold. For example, the foreign company that owns the sponsored entity sells off some of its shares resulting in a partial or full change of ownership in the DSM operating. The sale can take place outside of the sponsoring state even without the knowledge of the ISA.

To establish the right to tax indirect transfers, the ISA should consider adopting Model 1 from the PCT toolkit on offshore indirect transfers. This model taxes the indirect transfer as though a direct sale of assets has occurred. Specifically, the source state, which in this instance is the ISA, treats the local entity (the contractor) that directly owns the asset in question as having disposed of and reacquired its assets for their market value. The advantage of this approach is that it is easier to enforce. More details on the different legislative approaches can be found in the PCT Toolkit.

Like the taxation of subcontractors, the taxation of the transfer of mining rights pertaining to resources in the Area, seems consistent with the ISA’s responsibility to share the financial benefits

³⁶ These arguments are discussed at length in the UN (2017) Handbook on Selected Issues for Taxation of the Extractive Industries by Developing Countries available at https://www.un.org/esa/ffd/wp-content/uploads/2018/05/Extractives-Handbook_2017.pdf

³⁷ <https://taxsummaries.pwc.com/quick-charts/capital-gains-tax-cgt-rates>

³⁸ IGF, (2021) ‘Protecting the Right to Tax Mining: Tax Treaty Practice in Resource-Rich Countries’ available at <https://www.igfmining.org/beps/resources/protecting-right-to-tax-mining-income-tax-treaty-practice-mining-countries/>



derived from activities in the Area. It also fits within the financial terms of contracts since it is a tax that would be paid by the contractor. If the ISA does not tax the gains from the transfer of mining rights, or at least establish a sourcing right in the Area, then the country where the seller is located could tax the gains. Of course, in that case, the contractor would likely structure the transaction so that the seller is based in a jurisdiction that does not tax capital gains, avoiding paying tax anywhere.

c) Defining the scope of fiscal stabilisation

The Draft Regulations give the ISA the power to review the system of payments, and rate of payments, every five years from the first date of commencement of commercial production in the Area, and at intervals thereafter as determined on a needs basis. Specifically, the joint report by CRU and RMG recommended that “the royalty regime is reviewed within the first few years of operations beginning, which will enable any necessary alterations due to differences between actual processing costs and preliminary estimations.”³⁹

Notwithstanding, any changes to the system of payments will only apply to existing exploitation contracts by agreement between the ISA and the contractor. In effect, the payment system is stabilised for the tenure of the contract, which is thirty years, unless the contractor agrees to the changes. Changes to rates of payments are slightly different. In this case any changes will apply to existing contractors, but only from the end of the Second Period of commercial production. The actual timeframe is yet to be defined.

Periodic review of financial terms of extractive industry contracts is increasingly seen as best practice. Stabilisation of the financial terms for the tenure of a contract (up to thirty years in this case) is not. The 2020 [OECD Guiding Principles on Durable Extractive Contracts](#) is the most recent international standard on the design and use of fiscal stabilisation clauses, when and if they are used. Paragraph 54 of the commentary is the most relevant to fiscal stabilisation, it states:

54. In cases where investors perceive there to be high fiscal or political instability, they may seek the inclusion of fiscal stabilisation clauses to reduce these risks. Host governments may not need to offer or accept to include stabilisation clauses, as they could still attract the required investment through strong constructive negotiations and open competitive bidding involving technically and financially capable investors. Where governments decide they are necessary, fiscal stabilisation provisions can be designed to minimise the general tax policy impact, by limiting its scope to specific key fiscal terms (not all fiscal terms), such as agreed rates, for a specific period of time (not indefinitely), and possibly by applying a stability premium on tax rates. Commensurately, for extractive contracts to be durable, they should contain clear obligations on investors to pay their full share of taxes under the contract and applicable law and the clear rights of the host governments to enforce those obligations. The adoption of bona fide anti-avoidance measures or the interpretation of existing laws by host governments to protect the revenue base against tax base erosion and profit-shifting (e.g. on interest deduction limitations and transfer pricing) and consistent with internationally

³⁹ RMG, and CRU, (2020) ‘Joint summary of the reports prepared by CRU and RMG Consulting relating to a Comparative Analysis of the Financial Aspects of Seabed Mining and Land-Based Mining’ <https://isa.org.jm/files/files/documents/Joint-summary-FInalDraft-20201012.pdf>



recognised tax practices should not be considered a change in law constrained by stabilisation clauses.

The implication here is that fiscal stabilization, if used, should not be based on a notion of automaticity in regulations, or in a negotiation, but on demonstrated need. It is a commercial choice: if the host state (which in this instance is the ISA) receives proper value from the potential investment, or risks seeing the investment completely foregone by this or other potential investors, then it may choose to enter into negotiations for a stabilization clause. If the ISA does choose to offer fiscal stabilization, it should be limited to what is necessary to achieve the identified needs:

- Limiting the scope to key fiscal terms, and not including all fiscal terms;
- Limited and defined time periods, not the full life of a contract or investment, and thus, inherently, not for renewals or extensions of the contract;
- And possibly applying a stability premium to the tax rates so the stabilization regime is in effect purchased from the ISA.

In summary, the OECD Guiding Principles call for a minimization of fiscal stabilization, and a targeted use if it is used at all. This is in stark contrast to the ISA Draft Regulations which propose universal, unlimited stabilization of the payment systems for the tenure of a mining contract, up to 30 years. Such an approach is out of step with the normative frameworks that govern fiscal stabilization in the extractives sector, as well as the trend in land-based mining contract negotiations.

Conclusion

Designing an effective payment regime for DSM is a complex, but critical task. The key issues are:

- Setting a target AETR (or range) according to the ISA's policy objectives, administrative capacity, and comparability with land-based mining;
- Deciding whether sponsoring state taxes should be factored into the target AETR, or excluded because of too much uncertainty;
- Selecting a payment regime that best achieves the target AETR, noting that a payment regime with progressive elements is best equipped to respond to differences in profitability;
- Exploring options to simplify a profit share, should the ISA choose Option 3. Formulary apportionment would avoid transfer pricing issues, double taxation, and potential disputes. Alternatively, a profit-based regime with additional safeguards could achieve these goals.
- Exploring options to tax the profits from subcontractors operating in the Area, as well as the transfer of exploration and mining rights; and
- Ensuring that fiscal stabilisation provisions are based on commercial need, as well as limited in scope, and time.



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