SUBMISSION TO
THE DEPARTMENT OF THE ENVIRONMENT, CLIMATE AND COMMUNICATIONS
IN RESPECT OF
DRAFT POLICY STATEMENT FOR MINERAL EXPLORATION AND MINING IN IRELAND, SEA SCOPING REPORT

The creation of a policy statement for mineral exploration and mining in Ireland is timely considering the volume of raw materials that are required for decarbonisation of the energy sector along with the investments envisaged in digitalisation, infrastructure and housing.

Scoping Question # 1 Based on the plans, policies and programmes outlined, are there any other key relevant international, national or regional plans, policies or programmes that should be considered in the SEA Environmental Report on the Policy Statement on Mineral Exploration and Mining?

The Extractive Industries Transparency Initiative (EITI) is an international programme where member countries commit to disclose information along the extractive industry value chain. The EITI currently has 55 member countries. While Ireland already adheres to many of the EITI rules of what must be disclosed and when, there are additional rules that could be implemented.

Scoping Question # 2 Based on the likely significant impacts outlined above, are there any other effects or impacts that should be considered in the SEA Environmental Report on the Policy Statement on Mineral Exploration and Mining?

The potential environmental issues are predominantly focussed on negative impacts, however, there are numerous potential positives impacts possible if industry best practise is followed.

- Population and human health:
    - provision of drinking water and electricity through shared infrastructure,
    - increase in local wealth through community ownership/benefit schemes (as becoming increasingly popular in Irish wind farms) and
    - support to human society through the delivery of materials for basic goods, tools and infrastructure.
- Biodiversity, flora and fauna:
    - contributions to knowledge through baseline studies (which start in the exploration phase) and continued monitoring,
    - positive impacts on protected areas (see Non-Energy Mineral Extraction in Relation to Natura 2000 Case Studies, 2019, The N2K Group EEIG and the Institute for European Environmental Policy for the European Commission) through set-aside areas and restoration,
    - net gain (rather than no net loss) policies have become industry best practise whereby biodiversity is aimed to be increased compared to the baseline through restoration of the mine site combined with offsetting by practising conservation outside the immediate mine site, and
    - abandoned historical mines, although no longer legally permissible, have often created new habitats (e.g., rock walls for nesting birds of prey and micro-climates supporting diverse flora) and have provided a location free of human interference.
- Water:

    - contributions to knowledge through baseline studies (which start in the exploration phase) and continued monitoring, and
    - as clean water is a vital input in mining processes the protection of local groundwater has a significant business case for mining companies.
- Climatic factors:
    - The primary contribution to greenhouse gas emissions from the mining industry (barring coal mining) arise from use of carbon intensive energy sources. Currently the industry is undergoing rapid change through mine site energy generation from renewable sources and replacing combustion engines and generators with electrical sources, and
    - Potential to contribute to the circular economy through recycling in smelters if constructed in Ireland.
- Material assets:
    - Potential for shared infrastructure around mine developments, including road upgrades, water extraction and treatment and electricity generation, and
    - Potential development opportunities post-closure of mine sites and associated increase in value of land. Closed mine sites across the world have been converted to valuable material assets e.g. Lisheen mine in Co. Tipperary is now the site of the National Bioeconomy Campus, the Eden Project in Cornwall takes advantage of the micro-climate created within a closed mine and the Zollverein park in Germany is a closed coal mine.
- Cultural heritage:
    - Historic mine sites are popular geo-heritage and tourist sites (e.g., Copper Coast, Argina Mines, Glengowla Mines), however, currently legal requirements and industry best practise require the removal of all mine equipment post closure along with complete restoration of the site. This means that there will be no future geo/industrial heritage sites demonstrating current practices.

It is important that during the consideration of the environmental impacts of the policy statement that mineral exploration and mining are treated separately. This is because while they are co-dependent industries, their activities, techniques, outcomes, and impacts have little overlap. Mineral exploration is low impact and short-lived with no extraction taking place.

It should also be noted that all the issues outlined in table 5-1 can be avoided or ameliorated through adherence to current legislation and industry best practise.

Scoping Question # 3 Do you have any comments regarding the draft SEA Objectives presented?

Due consideration should be given to the role of mined materials in protecting human health. For example, in ending hunger through the use of phosphate and potash fertilisers and preserving food through aluminium containers and refrigeration, and in providing potable water through pumps and pipes. Most medical devices are made, at least partially, of mined materials as are medical implants, in addition to many medications and health products utilising mined materials (e.g., zinc in sunscreen).

An additional objective that should be included in relation to the population and human health SEA topic, is to contribute to the delivery of society. Nearly every aspect of human society is entwined and dependent on mined materials. At its most fundamental these are the materials that make our basic tools on which the foundation of all other material use is built. This relationship is explored through the lens of the Sustainable Development Goals in Mapping the Role of Raw Materials in Sustainable Development Goals (JRC Science for Policy Report, 2019) and Mapping Mining to the Sustainable Development Goals: An Atlas (World Economic Forum white paper, 2016).

Scoping Question # 4 Do you have any suggestions or comments in relation to the overall approach to alternatives?

The example considerations within the strategic alternative types cannot be deemed reasonable on logistical, economic or ethical grounds. However, a full exploration of these alternatives as part of the SEA process is welcome.

The example consideration *"consideration of a do nothing scenario relating to the business as usual approach"*, despite the need for significantly increased quantities of mined materials and new mines, will keep Ireland locked into hydrocarbons and dependent on imports from countries with lower environmental and safety standards. A policy statement that supports domestic exploration and mining, while not capable in eliminating these issues due to Ireland's geological endowment, would help in reducing their impact.

The example consideration *"consideration of a reliance on imports only for minerals"* is both unrealistic and unethical. Many countries have significant decarbonisation ambitions that require extremely large quantities of mined materials to switch to renewable energy sources and electric vehicles, despite a lack of proportionate increase in the availability of these mined materials. Ireland cannot be assumed to be able to compete with so many other countries to be able to achieve its own green economy targets. A reliance on imports based on environmental grounds also merely moves the environmental issues outside of Ireland's control, often to countries with lower environmental and safety standards.

The example consideration *"sector or mineral based prioritisation"* gives rise to several issues and risks. For example, mineral exploration and mine permitting/construction is a lengthy process that typically takes place over ten to twenty years. Any prioritisation that cannot adequately foresee the demand-availability situation over that timescale, due to technology replacement, material substitution or global mine developments, could result in stranded assets, underdeveloped assets and loss of revenue.

Prioritisation of a critical metal but one that is rarely found in Ireland or has extraction difficulties associated with it could result in a "rush" of opportunistic exploration without sufficiently reasonable expectation of discovery or extraction. Mineral exploration without such reasonable expectations wastes money and is needlessly intrusive on communities. However, it should be noted that currently the prospecting licence application requires a detailed explanation on reasonable expectation of discovery for the mineral(s) of interest.

In contrast, the opposite of prioritisation with the demoting or banning of a mineral also has issues and risks. For example, exploration for uranium was banned in 2007, however, in light of the climate crisis the use of nuclear energy has once more entered national dialogue. If nuclear energy becomes acceptable in Ireland it will take ten to twenty years before Ireland could potentially become self-reliant. Other minerals may be deemed unfavourable for a particular reason without consideration of the full spectrum of their uses. For example, in June 2021 exploration and extraction of coal was banned due to its contribution to greenhouse gas emissions when used as an energy source. However, coal is an essential ingredient in active carbon for water filtration and carbon fibre.

Additionally, geological deposits rarely contain just one mineral. In a hypothetical situation where gold has been banned but a company wishes to mine a copper-gold deposit (a common co-occurrence) would the gold be left in the tailings rather than the maximum value being extracted during mining?

Other comments

The SEA Scoping Report places an emphasis on the use of metals and minerals for the delivery of the green economy to the near exclusion of other uses. The transition to a green economy is certainly essential for Ireland's sustainable future, however, a considerably wider range of materials is required for use in daily life. For example, Ireland is currently a producer of gypsum, which is not critical for the energy transition, however, it is the primary component of plasterboard. Large quantities of plasterboard will be required if the number of houses needed to meet demand are to be built. These everyday metals and minerals should not be forgotten about in favour of those that are on the forefront of public discussion.

Emer Blackwell PGeo

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