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What is Benefit Sharing? Respecting Indigenous Rights and Addressing Inequities in Arctic Resource Projects

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Abstract: International standards refer to Indigenous peoples' right to benefit from resource development, participate in decision-making and determine priorities in development planning that directly affects them. While good practice exists in benefit sharing, Indigenous peoples still lack opportunities for a meaningful role in strategic planning. In his role as UN Special Rapporteur on the Rights of Indigenous Peoples, James Anaya identified a 'preferred model' of resource development in which Indigenous peoples have greater control over planning decisions and project implementation, and consequently a more meaningful share of the benefits of resource development. This paper explores the requirements of international standards and guidance alongside different models of benefit sharing in practice by extractive industries in Arctic and sub-Arctic contexts. It is based primarily on desk-based analysis of international hard and soft law and industry standards, while also drawing on ethnographic field research in Russia and Norway. It highlights good practice within mainstream development scenarios and identifies models of benefit sharing that represent a greater degree of Indigenous participation and control. It concludes that there is a need to consider benefit sharing within an overall paradigm that allows greater space for Indigenous voices in decision making, including at the strategic planning stage.

Keywords: arctic; Indigenous; extractive industries; international standards; benefit sharing; equity; strategic planning

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1. Introduction

Indigenous and local communities are increasingly calling for more equitable benefit sharing by the extractive industries, alongside the effective management of environmental and social risks of industrial activity. Within international law, the concept of 'fair and equitable benefit sharing' is increasingly accepted as a norm in a range of sectors, including the extractive industries [1]. For the purposes of this paper, the term 'benefit sharing' encompasses taxation and revenue distribution, job creation, ownership of companies and shares, negotiated agreements and community development programmes. The paper focuses in particular on the benefits that accrue to local, especially Indigenous, communities directly affected by resource development. Benefit sharing is not an isolated process and should be considered alongside local and Indigenous rights to land and resources, project impact mitigation, and compensation arrangements. Benefit sharing is distinct from compensation (although there may be overlaps in practice) and relates to broader questions of equitable development. This paper focuses primarily on the Arctic (and sub-Arctic) context, building on a steadily increasing amount of scholarship related to various aspects of benefit sharing in Arctic resource development [2–8].

The paper highlights a key aspect of benefit sharing that has been under-explored in scholarship and neglected in practice to date, namely the role of Indigenous peoples in strategic planning. The term

'strategic planning' refers, inter alia, to the development of national policies, plans, programmes and strategies for resource development and benefit distribution; and the allocation of lands for resource exploration and extraction, including resource mapping and land-use zoning at the national level or within local area plans [9,10]. Indigenous peoples' right to participate in decision-making and determine priorities at this stage of planning is written into international Indigenous rights instruments (see Section 3.1). The lack of influence of Indigenous peoples over these crucial planning stages results in a resource development model that is controlled by the state and economic players that are external to local Indigenous communities, commonly resulting in less than equitable benefit-sharing outcomes for those communities [11] (see Sections 3.3 and 3.4).

At the national level, benefits from resource projects are expected to derive from taxation and revenue distribution, job creation, project-related infrastructure and social services, and various multiplier effects such as the growth of secondary industries and increased purchasing power [12,13]. Governments are responsible for setting legislation and regulations related to the above, while benefit-sharing may also be managed by state-owned companies. Governments are also responsible for land agreements and treaties, which may determine local and Indigenous rights to negotiate benefits. They also set requirements for consultation around government policies, plans, programmes and strategies that relate to the environment and those that directly affect Indigenous peoples (see Section 3.1). Governments may also establish sovereign wealth funds, such as Norway's Oil Fund, or sub-national funds, such as the Alaska Permanent Fund [14,15]. Community-level benefit sharing is mandated by government legislation in some countries, but the detail and content of these regulations vary greatly [16].

Yet the people who experience most of the direct environmental and social costs of extractive projects—many of whom are Indigenous—frequently fail to benefit from the so-called 'ripple effect' of revenue distribution and job creation [17]. They may not receive many of the tax payments or revenues generated by projects, while local workers and businesses may not have the skills or experience—or indeed the desire—to compete for jobs and contracts [6]. This imbalance of costs and benefits is compounded by the unpredictable nature of commodity markets and the impacts on communities of economic slumps or sudden project closures [18–20]. Inadequate or poorly-managed benefit-sharing can lead to the breakdown of trust, to social tension or even conflict, threatening the success of projects, company profits and the ability of governments to meet policy goals [21,22]. The disempowerment, 'voicelessness' and lack of agency of Indigenous, poor and marginalized people have long been identified as key factors in the failure of extractive industries to have positive development outcomes [12,23].

Benefit sharing in Arctic (and sub-Arctic) extractive industries has traditionally been driven by state-owned companies in the context of colonial and neo-colonial type approaches to extractive industry development [24,25]. Where the company itself is not state-owned, the state may still play a significant role in benefit sharing. Across the Arctic and sub-Arctic region, the role of the government (nationally and regionally) varies greatly, which is partly a reflection on the relative size of the countries and their contrasting governance regimes [8,26]. Tysiachniouk and Petrov identify four modes of benefit sharing in the Arctic: (1) 'paternalistic mode' (a mode dominated by the state); (2) 'company centred social responsibility (CCSR) mode' (a mode in which the company takes a more decisive role); (3) 'partnership mode' (bi-lateral partnerships between communities and companies, or tri-lateral partnerships involving government); and (4) 'shareholder mode' (a mode in which local communities own shares in mineral projects and in the companies exploiting the resources) [8]. Writing about Canada, Coates and Crowley [24] (p. 20) state:

> While there is no single model of resource and economic development that has or will work in Aboriginal communities across the country; it is increasingly clear that most Indigenous peoples are open to partnership approaches. Collaboration makes sense for Aboriginal people, communities, companies, governments and Canada at large.

In an analysis of international law that specifically seeks to clarify the concept of benefit sharing, Morgera recognizes the iterative and dialogic nature of the concept as established in international legal instruments [1] (p. 364):

> [B]enefit sharing differs from the unidirectional (top-down) flows of benefits and, rather, aims at developing a common understanding of what the benefits at stake are and how they should be shared. In this connection, it has been argued that benefit sharing is geared towards consensus building. It entails an iterative process, rather than a one-off exercise, of good-faith engagement among different actors that lays the foundation for a partnership among them.

In Morgera's analysis 'partnership' refers to 'an approach to accommodate state sovereignty over natural sovereignty and indigenous peoples' self-determination' [1] (p. 364). This balance—particularly between state sovereignty and Indigenous peoples' self-determination—lies at the heart of current efforts to ensure equitable benefit sharing in the context of extractive industry activity that takes place on Indigenous peoples' lands.

The former UN Special Rapporteur on the Rights of Indigenous Peoples, James Anaya, identified the 'standard' or 'prevailing' model of resource development, driven by economic actors external to the local Indigenous community, which frequently fails to deliver adequate benefits to local Indigenous communities [11]. He contrasted this with a 'preferred' model, based on greater levels of Indigenous control over the nature of the development and the sharing of the benefits, emphasizing in particular the Indigenous right to 'determine priorities and strategies for the development or use of their lands and territories' according to Article 32 of UNDRIP [11] (see Section 3.3). Elsewhere, the 'prevailing' model of resource development has been termed 'extractivism' [27,28], and has been contrasted to Indigenous relations with the natural environment, based more on partnership, respect and entitlement through 'knowing' rather than 'owning' the resources [29,30]. Anaya's 'preferred' model corresponds to Tysiachniouk and Petrov's 'shareholder' mode, while also envisioning greater Indigenous control over decision-making, including strategic planning (see Section 4). The notion of 'Indigenous control' also extends to decision-making about whether or not a project goes ahead. In cases where Indigenous peoples do not own the mineral resources in question, this requires a process of free, prior and informed consent (FPIC) before key development decisions are made [11].

A growing awareness of the lack of fairness or equity in the standard resource development model is now compelling Indigenous communities to urge governments and companies to: (a) ascertain how communities envision their future in relation to extractive industries, and whether or not they want resource development to take place on their lands; and (b) to ensure appropriate decision-making powers and adequate benefit sharing, if developments are to take place [7,31,32]. This is supported in international standards—notably the International Labour Organisation (ILO) Convention No.169 on Indigenous and Tribal Peoples in Independent Countries (ILO 169, 1989) and the United Nations (UN) Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007), which refer, inter alia, to the right of Indigenous peoples to decide their own priorities and to exercise control over their own development; yet, as Anaya has pointed out, this particular Indigenous right is rarely respected in practice [11] (see Sections 3.1 and 3.3).

A key trend in macro-level benefit sharing is transparency, as a way to tackle the so-called 'resource curse' that frequently hampers resource-rich countries in taking advantage of this potential (e.g., due to corruption, revenue mismanagement, excessive government spending and political authoritarianism) [17,33]. The Extractive Industries Transparency Initiative (EITI) is a leading influence in this sphere, although by no means the only one [34]. Norway participates in and has strongly supported and promoted EITI, which was launched in 2002 and obliges signatory governments to disclose extractive industry revenues that they receive, while companies disclose what they pay to governments. Recent revisions of the Standard have sought to increase sub-national and project-level transparency; however, efforts to ensure that project-affected communities can access sufficient

information about revenue flows and project benefits have had limited success [34]. EITI has also been criticized for the lack of Indigenous peoples' involvement in what is promoted as a multi-stakeholder initiative [35]. At the same time, in Canada, which has not signed up to EITI but where national legislation is moving ahead on transparency, experts advocate caution around disclosure of information relating to previously confidential payments made to Indigenous groups [36].

Investment contracts between host governments and companies frequently contain benefit-sharing arrangements [37]. Mandatory clauses may relate to infrastructure development (e.g., roads, bridges or power generation) or 'local content' (mandatory levels of local hiring and contracting) [38,39]. Local content policies are aimed at developing local economies, building a skilled workforce and creating a competitive supplier base. However, local content targets tend to relate to the national level rather than numbers of project-affected local or Indigenous workers hired. Local content targets for local and Indigenous populations can, however, be incorporated into voluntary company-led initiatives and benefit-sharing agreements [40] (see Section 3.2). In North America, development corporations or Native corporations are a key model for benefit sharing. In Canada, Aboriginal development corporations have received funds from modern treaties and legal settlements as well as resource revenues, and have become significant players in Indigenous economic development [24] (see Section 3.4). In Alaska's North Slope residents receive Permanent Fund dividends and many are also shareholders in the Arctic Slope Regional Corporation and their local village corporation. Yet the 'shareholder' model of benefit sharing has its challenges, including shareholder eligibility, inter-generational fairness and the challenge of trying to keep wealth within the local community [8].

Some companies view their corporate responsibility primarily in terms of paying taxes and following the legislation of the host country [5]. However, increasingly many companies and financial institutions are starting to realise the importance of recognising human rights and Indigenous rights. Benefit sharing is understood to be a good opportunity to build trust and a social licence to operate in local and Indigenous communities and society more widely [41,42]. Therefore, there is increasing interest among industry players in benefit sharing at the project level, particularly where government regulation or leadership is lacking on local-level benefit-sharing. A World Bank-commissioned report explored the pros and cons of government-regulated and non-regulated approaches to benefit sharing [16]. Some practitioners interviewed for the report feared that mandatory standards and requirements would create a 'lowest common denominator' system. Others feared that a lack of legal obligations might result in low levels of commitment; and, without adequate legal clarification and monitoring, companies could struggle to deliver effective benefit-sharing programmes. Others argued that it may lead governments to abdicate their own responsibilities. This approach may also result in dependency on the company; in some areas, there has reportedly been a shift from 'state paternalism' to 'corporate paternalism' [43].

Companies' voluntary 'social investment' efforts range from philanthropic activities to negotiated agreements with communities. The global oil and gas industry association for environmental and social issues, IPIECA (the global oil and gas industry association for environmental and social issues), defines social investment as 'the voluntary and/or regulatory contributions companies make to the communities and broader societies where they operate, with the objective of mutually benefiting external stakeholders and the company' [44] (p. 2). Social investment can be 'mandatory' (or 'regulatory') via the above-mentioned legal obligations within investment contracts, or 'voluntary' (initiatives that companies develop based on their own corporate policies and commitments to international financial institutions, in response local demands, or to establish a competitive edge in negotiations with host governments) [45]. Social investment can be philanthropic (e.g., support for sports or cultural activities in the local community) or 'strategic' (e.g., development of local skills to provide labour, goods or services to the resource-development project) [42]. Frequently, programmes of support for Indigenous peoples come under the rubric of 'voluntary social investment', with mixed levels of success (see Sections 3.2 and 4).

In practice, social investment interventions in Indigenous and non-Indigenous communities have frequently been based on a limited understanding of the local context, with little strategic planning, often involving distribution of free goods and services, with little local ownership and no clear objectives, transparency or effort to measure and communicate the outcomes [16]. Some programmes ended up creating community dependency on the company, or allowing 'benefit capture' by elites, or fuelling local corruption. The failure of such efforts to provide tangible long-term benefits to communities led to the evolution of more targeted and formalised approaches, often termed 'strategic social investment', with a strong focus on local ownership and the essential 'exit strategy' to ensure sustainability beyond the life of the industrial project [44,46]. Independent foundations, trusts and funds have also been used to deliver development projects [47]. Increasingly there are calls for projects to support not only project-related skills development, but also locally appropriate and desired livelihoods support and skills development outside of the industry. Households may combine this with the income of one or more members of a family or extended family working in mineral or petroleum development. Such models and potential models of 'coexistence' are worth exploring further [6,29].

A key factor enabling local communities to assert their rights is whether or not they are officially recognized as Indigenous in national law, and therefore able to enjoy the associated legal protections and benefits, or—in the case of project finance from international financial institutions—whether they meet a set of criteria that might 'trigger' the performance standard that relates to Indigenous peoples. This is a particular challenge in parts of Russia, where not all Indigenous traditional resource users benefit from official recognition in Russian law, notably the reindeer-herding Komi people of northwest Russia, who live in a major petroleum province [48,49] (see Sections 3.2 and 4). There is also a question of the geographical scope and boundaries of a support programme. For instance, the Sakhalin-2 project Indigenous peoples' development plan covered all the Indigenous people on Sakhalin Island, the Russian Far East, whether or not they were directly impacted by the project, a decision that was welcomed by the Indigenous groups themselves, many of whom live in difficult circumstances; but this was only made possible by their small total number [50]. Political contests for resources and benefits inevitably arise in benefit sharing, and so broad-based representative decision making in the design and governance of a programme is more likely to generate equitable outcomes [51].

Frequently the first companies to visit a community are junior exploration companies, which are smaller than the multinationals and have fewer resources and less experience to engage in meaningful engagement with the local community or to implement development projects [52]. At this point, while the outcome of their exploration is uncertain, many feel that it is too soon to engage in benefit-sharing activities. In general, benefit sharing only takes place at this stage if it is mandated by national legislation as is the case, for instance, in Greenland's oil sector [53]. Moreover, extractive projects may change hands several times during their development, with the risk of a lack of consistency as project personnel change. In many cases, contractors to major projects also engage in voluntary social investment, especially during construction phases; a lack of co-ordination between contractors means that strategic advantages could be lost [54]. A further risk is that of a project being discontinued and social investment programme support withdrawn suddenly if there is a downturn in the price of commodities. This may leave communities with half-built infrastructure or a legacy of skills development with no project to apply the new skills to [55].

Where Indigenous communities are involved, discussion and practice in benefit sharing increasingly relates to the negotiation of agreements between communities, companies and/or the state, known as benefit-sharing agreements, community development agreements (CDAs) or impact-benefit agreements (IBAs). These may be a mandatory requirement from national or regional governments, or a voluntary practice (e.g., a condition of finance from international financial institutions). Such agreements are common in Canada [7,56,57]. They are also a long-established tradition in Russian Arctic regions with significant indigenous populations [2,3,58]. Agreements can reduce risk by offering predictability, transparency and a way to manage expectations; they offer a framework for

long-term structured engagement, participatory decision-making and monitoring, with clear roles and responsibilities, and mutually agreed objectives and commitments [40].

In the past, agreements dealt primarily with local employment and business opportunities, but the scope of agreements has since expanded to include: revenue sharing and equity shares; education and training; land access; local use of mine infrastructure; and community participation in planning [59–61]. In some countries in recent years royalty payments have become more common than cash payments within community development agreements, and this has increased the scale of benefits, which can in some cases be comparable to the revenues typically accruing to the state or provincial governments [51]. While benefit sharing is distinct from compensation, benefit-sharing negotiations may also include a component of environmental and social impact mitigation and is likely to be closely related to impact assessments [40,62]. A process of FPIC might also be constructed around a benefit-sharing agreement [60,63]. However, good practice guidance emphasises that agreement to begin negotiations does not imply community consent to a proposed project and a community has the right to terminate a negotiation if, for example, information becomes available that makes the project unacceptable [40].

Within mainstream resource development models, good practice includes: open, inclusive dialogue on costs and benefits, and inclusion of cost-benefit analysis in social impact assessments; preferential employment and related training; livelihoods development support; profit-sharing and equity stakes [16,44]. Good practice in agreement making includes a process of inclusive dialogue with methods, goals and indicators of effectiveness agreed in advance between the parties; the sharing of full information around potential project impacts and benefits; and leading to mutual agreement on the way forward in developing the project [51,59]. A benefit-sharing agreement should document all agreed aspects of the negotiation and be legally binding, with potential to revisit the agreement if circumstances change significantly. Issues can be addressed in the course of the project through a locally-appropriate grievance mechanism and participatory and third party monitoring [40,64]. According to Anaya, the 'general rule' ought to be to carry out such negotiations according to the principles of FPIC [11].

Studies suggest that a benefit-sharing agreement can be successful where it can be integrated and supported by local, regional or national government and complements existing development plans [16]. However, in some cases a less centralised approach can ensure greater empowerment of communities and more effective local-level benefit sharing [8]. Benefit sharing within a community is also important, as the poorest and most vulnerable may not be able to take advantage of opportunities, such as jobs, that arise from an agreement [51,59]. Communities also need to be able to agree—at least to some degree—amongst themselves what position to take in relation to a proposed development. They may prepare in advance for negotiations by developing their own 'community protocols'. These are documents prepared by the community, often with assistance from appropriate civil society organisations, which articulate the community's vision and their agreed ground rules for the ways in which project proponents should engage with them [60,65].

In the Arctic context, scholars have observed a lack of guidance from key institutions such as the Arctic Council Sustainable Development Working Group [66], and while there is a lot of guidance from industry associations and others, communities and practitioners often need help to negotiate the mass of guidance and adapt it for local contexts. Companies frequently struggle due to the lack of a quantitative standard to measure the share in the benefits of a project that 'should' be directed towards communities, or to assess the fairness of benefit-sharing arrangements. An IFC-commissioned report [59] (p. 63) observes that: 'Legitimate and reasonable arrangements are arrived at through negotiation between the project, the government and the community over time', while '[s]uccess depends on inclusive, respectful and transparent processes'. Tysiachniouk and Petrov prefer to assess their benefit-sharing models in terms of both 'procedural' and 'distributional' fairness [8], an approach followed by others when assessing the social licence to operate in the mining sector, which is influenced greatly by benefit sharing [41]. Project-level grievance mechanisms can be an effective way to assess

the effectiveness of a benefit-sharing arrangement, alongside surveys and third-party monitoring, and various tools such as measuring the 'social return on investment' (SROI) [40,64,67].

This paper explores the standards and guidance that regulate and shape benefit sharing as it relates to the extractive industries, and some of the different ways that benefit sharing has been implemented in practice in the Arctic and sub-Arctic. In particular, the paper explores the extent to which standards and practice incorporate the Indigenous right to 'determine and develop priorities and strategies' for development, identifying this as a key gap in current analysis and practice relating to benefit sharing. In line with Anaya [11], the paper concludes that the vast majority of efforts by governments and industry to share the benefits of extractive industry development with local, and particularly Indigenous, communities remain entrenched within with the prevailing 'extractivist' resource development model, which is inherently biased towards less than equitable outcomes for Indigenous and local communities. The discussion section points to ways that both scholars and practitioners might approach benefit sharing in a way that is strategically more resilient to social risks, while also more adequately respecting Indigenous rights and tackling inequities in resource development.

2. Materials and Methods

This is primarily a desk-based analysis of international standards and guidance and their implementation, along with current literature on benefit sharing, particularly as it relates to Arctic and sub-Arctic extractive industry projects. This includes analysis of the texts of international standards, national legislation and regulations in the relevant countries, and publicly available materials from company, government and civil society websites, academic journal articles, popular publications and the media. The findings have been supplemented by interviews and email exchanges with key stakeholders. The research has also been informed by ethnographic field research in Russia [68] and Norway [55] between 2013 and 2016, although fieldwork does not provide the bulk of the material on which this article is based.

The field work involved semi-structured interviews, group meetings and informal discussions with local residents, civil society organizations, government officials, company representatives and academics. In Norway, a total of 26 qualitative interviews were held during two 7–10-day visits in 2015 and 2016, relating to a proposed mine site close to the Sami village of Guovdageaidnu (Kautokeino), northern Norway. In Russia, 33 interviews were carried out during three 10–15-day visits to the north of the Komi Republic in November 2013, March 2014 and June 2015, relating to the oil and gas industry, which is dominant in that area and affects several communities of Indigenous Komi people. Prior field research has also been carried out on extractive industry development in Greenland [69] and Sakhalin Island in the Russian Far East [70]. In Russia, field work was carried out in Russian; in Norway and Greenland, it was carried out in English, with interpretation where required.

For all field work, handwritten notes were taken during interviews and meetings, and were subsequently typed up and coded for the analysis, so as to identify recurring themes. The interviews were supplemented (and triangulated) by participant observation during the field work. The desk-based analysis has continued since the field visits and allows for constant updating in a context that is highly dynamic across the Arctic and sub-Arctic region.

3. Results

This section seeks to clarify some of the requirements of international legal instruments and industry standards pertaining to benefit sharing, while also highlighting some of the recommendations from relevant guidance documents and legal commentaries, which are commonly accepted as 'good practice'.

The analysis is divided into four sections. Section 3.1 outlines the requirements of four significant international instruments that frame state obligations. The International Labour Organisation (ILO) Convention 169 on Indigenous and Tribal Peoples (ILO 169) (1989) is legally binding on the 23 countries that have ratified it, including Norway and the Kingdom of Denmark among the Arctic states. The UN

Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007) is not legally binding, but is highly influential—at least rhetorically—as a UN instrument, while some elements have been incorporated into national legislation and have become customary international law [71]. UNDRIP was adopted in 2007 by a majority of 144 states, with four votes against it at the time, including Canada and the United States (which have now endorsed it), and 11 abstentions (including Russia, which has not changed its position).

Two further instruments are also considered, due to their relevance to the arguments in this paper. The UN Economic Commission for Europe (UNECE)'s Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (1998) (the Aarhus Convention) has been ratified by Finland, Iceland, Norway, Sweden and Denmark (but not Greenland), and has relevance to public participation in strategic planning related to the environment. All Arctic states except the United States are parties to the Convention on Biological Diversity (CBD) (1992), which sets out important principles for benefit sharing arising from the utilization of genetic resources. The US has signed but not ratified the CBD (see Section 3.1). This analysis does not include other instruments that are also relevant to the extractive industries, such as the OECD Guidelines for Multinational Enterprises and the UN Declaration on Business and Human Rights, which the author has analysed in depth elsewhere [72].

Section 3.2 outlines several key provisions of standards established by international financial institutions, industry associations and other industry players, relating to benefit sharing. These are significant not only in those situations in which they are directly applied, but also in establishing a benchmark for industry-wide international good practice. Section 3.3 focuses specifically on the notion of 'Indigenous control' within resource development as articulated by the then-UN Special Rapporteur on the Rights of Indigenous Peoples, James Anaya; this articulation lies at the core of this paper's arguments.

In Section 3.4, three Arctic countries—Norway, Russia and Canada—are highlighted for comparison regarding the way in which benefit sharing is managed in the context of extractive industry development on Indigenous peoples' lands. Norway has ratified ILO 169 and the CBD and has endorsed UNDRIP. It is a small country with well-developed democratic traditions, and while there is a strong central government influence over its resource policy, it is open to public debate and consultation, including with the Indigenous Sami population [15,72]. It also has a strong welfare state which provides support that Indigenous groups in other countries might seek from benefit-sharing agreements. At the same time, Norway has also been criticized for its lack of attention to Sami rights in some cases, while Sami involvement in strategic-level decision-making is also lacking [73,74].

In contrast to Norway, the Russian Federation—a vast country with a much less democratic heritage—has not ratified ILO 169 and abstained from voting on UNDRIP (and has still not endorsed it), although it is a signatory to the CBD. Russia's federal structure allows for regional governments to develop their own approaches to benefit sharing between extractive industry projects and Indigenous communities, which has resulted in a widespread practice of negotiating benefit-sharing agreements [2,3,5]. The role of international companies and international financial institutions has also had a significant influence on the way that benefit sharing is practiced with Indigenous communities in the context of international extractive industry projects in Russia [4,5,25].

People frequently look to North America for models of benefit sharing in which Indigenous peoples take a more proactive role. Canada is a signatory to the CBD, but has not ratified ILO 169 and initially voted against approving UNDRIP. Since endorsing UNDRIP in 2010, Canada has been struggling to fully implement it—largely because of the challenges posed by FPIC [75,76]. While Canada has no federal legal requirement for benefit-sharing agreements, the practice of signing such agreements is widespread [7,56,57]. Other forms of benefit sharing include Aboriginal development corporations and proactive efforts by companies to generate job and business opportunities for Indigenous entrepreneurs [24] (see Section 3.4).

3.1. State Obligations: International Hard and Soft Law Instruments

This section considers international hard and soft law instruments that define state obligations relevant to benefit sharing. The term 'hard law' refers to legally binding instruments such as ILO 169, the Aarhus Convention and the CBD. 'Soft law' refers to non-binding legal instruments, such as UNDRIP. International instruments do not clarify the issue of benefit sharing to a great extent, especially in comparison to the related topics of consultation and participation [1,77]. Nonetheless, Indigenous rights instruments expand on the rights to self-determination, property, the means of subsistence and non-discrimination, and they articulate key principles that have direct relevance to the process of benefit sharing in extractive industry projects that take place on Indigenous peoples' lands.

In the context of resource development, Article 15 of ILO 169 requires governments to ensure that Indigenous peoples 'wherever possible participate in the benefits of such activities'. Article 7 underscores a key right of Indigenous peoples (as a feature of self-determination), which is to have a determining influence on development planning that affects them directly, including at the strategic level of plans and programmes, while governments have the responsibility to ensure—in collaboration with the Indigenous peoples concerned—that these planning processes prioritise the wellbeing of those peoples:

> 7(1) The peoples concerned shall have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control, to the extent possible, over their own economic, social and cultural development. In addition, they shall participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly.
>
> 7(2) The improvement of the conditions of life and work and levels of health and education of the peoples concerned, with their participation and co-operation, shall be a matter of priority in plans for the overall economic development of areas they inhabit. Special projects for development of the areas in question shall also be so designed as to promote such improvement.

UNDRIP does not refer to benefit sharing as such, but like ILO 169, Article 21(1), underscores Indigenous peoples' right to improvement of their living and working conditions:

> Indigenous peoples have the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, in the areas of education, employment, vocational training and retraining, housing, sanitation, health and social security.

Article 21(2) obliges states to 'take effective measures and, where appropriate, special measures to ensure continuing improvement of their economic and social conditions'. Article 32(1) of UNDRIP also confirms Indigenous peoples' right to influence strategic-level decision-making:

> Indigenous peoples have the right to determine and develop priorities and strategies for the development and use of their lands or territories and other resources.

This right is reinforced in Article 32(2), which obliges states to consult and co-operate with Indigenous peoples in order to obtain their FPIC prior to the approval of projects affecting their lands and resources.

In some cases, instruments that do not specifically protect Indigenous rights may also provide opportunities for influence over strategic planning. For instance, according to Articles 7 and 8 of the Aarhus Convention, public authorities are obliged to seek public participation in decision-making during the preparation of plans, programmes, policies and regulations that relate to the environment, which, in the case of resource development, may also include a component that regulates benefit-sharing [78].

The CBD)sets out key principles for the 'fair and equitable sharing of benefits' arising from the utilization of genetic resources and of traditional knowledge that relates to the conservation and sustainable use of biological diversity. The related Nagoya Protocol on Access to Genetic Resources and Equitable Sharing of Benefits Arising from their Utilization (2010) sets out obligations relating, inter alia, to FPIC. These two instruments have made a considerable contribution to the development of benefit-sharing norms and understandings, and the norms are increasingly referred to in extractive industry contexts. In 2004, the Secretariat to the CBD approved the Akwe: Kon voluntary guidelines for the conduct of cultural, environmental and social impact assessment regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities. Clause 46 of the voluntary guidelines states:

> Proposed developments on sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities should ensure that tangible benefits accrue to such communities, such as payment for environmental services, job creation within safe and hazard-free working environments, viable revenue from the levying of appropriate fees, access to markets and diversification of income-generating (economic) opportunities for small and medium-sized businesses. In accordance with national legislation or relevant national regulations, indigenous and local communities should be involved in the financial auditing processes of the developments in which they participate to ensure that the resources invested are used effectively.

The Akwe: Kon Guidelines are now widely taken into account in extractive industry contexts. They have been used by Indigenous peoples seeking to protect their rights in the context of extractive industry development, and they are recognized as best practice in the 2016 OECD Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector [79].

3.2. Company-Focused Standards and Initiatives

The activities of extractive industry companies are regulated by a combination of government regulation and industry standards. In some jurisdictions with weak government regulation—for instance in Russia—some of the more progressive approaches to consultation and benefit-sharing with Indigenous communities have been driven by the project's obligation to meet the requirements of project finance, as established by international financial institutions. A key standard setter in this field is the International Finance Corporation (IFC), the private sector lending arm of the World Bank Group.

The Environmental and Social Performance Standards (2012) of the IFC require the client—a company borrowing money from the IFC—to engage the local community in discussions around 'sharing development benefits and opportunities' (Performance Standard 1). Where Indigenous peoples are affected, clients of the IFC are required to follow the specific requirements of Performance Standard (PS) 7 on Indigenous Peoples. PS7 states that, where adverse impacts are unavoidable, clients should develop an Indigenous Peoples' Plan, with the informed consultation and participation of the Indigenous peoples. According to PS7(14), '[i]f the client proposes to locate a project on, or commercially develop natural resources on lands traditionally owned by, or under the customary use of, Indigenous Peoples, and adverse impacts can be expected,' the client is required to take a number of steps, including:

> Ensuring fair and equitable sharing of benefits associated with project usage of the resources where the client intends to utilize natural resources that are central to the identity and livelihood of Affected Communities of Indigenous People and their usage thereof exacerbates livelihood risk.

This is listed under 'Circumstances requiring free prior and informed consent'. Thus, the benefit sharing arrangements represent an integral part of an FPIC process. PS7(18) states that the client, together with the affected Indigenous community, will identify 'opportunities for culturally appropriate

and sustainable development benefits' and will ensure 'the timely and equitable delivery of the agreed measures'. PS7(19) states that benefit sharing will 'take account of the laws, institutions and customs of these communities, as well as their level of interaction with mainstream society'. PS7(20) continues:

> Various factors including, but not limited to, the nature of the project, the project context and the vulnerability of the Affected Communities of Indigenous Peoples will determine how these communities should benefit from the project. Identified opportunities should aim to address the goals and preferences of the Indigenous Peoples including improving their standard of living and livelihoods in a culturally appropriate manner, and to foster the long-term sustainability of the natural resources on which they depend.

While these are positive developments in industry standards, they still tend to link benefit sharing with negative project impacts, rather than acknowledging Indigenous peoples' right to share in the benefits of resource extraction from their lands whether or not they also have to experience negative effects from these activities. Moreover, the challenge of defining whether or not a community can be considered 'Indigenous,' thus triggering the relevant performance standard, has still not been fully resolved by companies and international financial institutions (see Section 4).

The 94 financial institutions which have signed up to the Equator Principles are obliged to follow the IFC Performance Standards in the case of large-scale projects (more than 10 million USD) in countries where national legal and regulatory regimes are deemed to have insufficient safeguards (of the Arctic states this is only Russia). In projects that affect Indigenous peoples, clients of Equator Principles Financial Institutions are required to follow IFC Performance Standard 7. Other international financial institutions have adopted similar ethical frameworks to the IFC, according to which they make lending decisions, including the European Bank for Reconstruction and Development (EBRD), which focuses on Central and Eastern Europe, Russia and Central Asia. As of the date that this article was submitted, the EBRD's revised performance requirements were undergoing review and public consultation.

Of course, not all extractive industry projects use project finance from international financial institutions. Other standards have been developed for institutional investors (e.g., the Principles for Responsible Investment) and export-credit agencies (e.g., the OECD Common Approaches). Many companies are also involved in voluntary membership initiatives, such as the UN Global Compact, or various industry associations (see below). However, many companies are self-financing, including state-owned companies, and are not obliged to adhere to international standards, only to the legal framework of the countries in which they operate. In the case of joint ventures (e.g., between a multinational corporation and a state-owned company), the policies and standards applicable to the project in question (over and above national law) need to be negotiated and agreed between the partners.

Industry associations have made a significant contribution to standard-setting. The International Council on Mining and Metals (ICMM), for instance, has 27 member companies, who are obliged as a condition of membership to adhere to and report on ICMM's Principles and Position Statements, which themselves can be viewed as an agreed industry standard for good international practice. In line with the ICMM Position Statement on Indigenous Peoples and Mining (2013), ICMM members commit to '[e]ngage with potentially impacted Indigenous Peoples with the [objective of] ensuring sustainable benefits and opportunities for Indigenous Peoples through the development of mining and metals projects' (Commitment 1). ICMM's requirements for benefit sharing do not only relate to Indigenous communities, and it offers a range of guidance documents and tool kits that cover benefit sharing and measurement of socio-economic impacts of mining projects [67,80–82]. The oil and gas industry association IPIECA, which has 35 member companies, has produced (non-binding) guidance that represents industry consensus around good practice as it is developed by working groups of industry experts from IPIECA member companies. IPIECA has produced, inter alia, guidance on social investment [44] and Indigenous peoples [83]. Individual companies have also pushed the

boundaries of good practice, consolidating this in published reports, for instance Rio Tinto's report 'Why agreements matter' [84]; setting precedents for engagement and enterprise support, e.g., Suncor in Alberta [24]; or they have been forced to innovate by new government regulation in frontier resource development contexts, as was the case for Tullow in Greenland [69].

Further relevant guidance has been produced by practitioners, researchers and foundations, aimed at companies, governments, communities, consultants and negotiators [40,85,86]. Of particular interest to benefit-sharing debates is the guidance that helps to understand effectiveness factors and measure the socio-economic impacts of an extractive industry project [64,87]. The IFC guidance highlights the importance of defining up front 'what success will look like in the eyes of the community, the company, local government representatives and other relevant stakeholders' [44]. This is in line with good practice around FPIC, which entails agreement between the proponent and the community up front regarding what consent will look like, who is to take part in the negotiations, how they will take place and how they will be monitored [60,63]. In 2014, the indigenous rights NGO, First Peoples Worldwide developed their Indigenous Rights Risk Report, a risk assessment tool, in response to demand from investors for better ways to identify, manage, and mitigate Indigenous rights risks [76]. Under 'social investments' in Indigenous communities, the highest level of risk is posed when 'There is no evidence of social investments in Indigenous communities', while the lowest risk rating can be achieved where: 'There are social investments in Indigenous communities; there is full or nearly full local control over design and implementation; benefits accrue to a broad cross-section of community members, and will be sustained beyond the project's life cycle' [76] (p. 22).

3.3. Indigenous Control: Exploring James Anaya's 'Preferred Model' of Resource Development

In his former role as UN Special Rapporteur on the Rights of Indigenous Peoples, James Anaya wrote a UN-endorsed commentary on Indigenous rights and extractive industries in response to the launch of the UN Guiding Principles on Business and Human Rights (2011). According to Anaya, the standard scenario or 'prevailing' model of resource extraction is when states or third party business enterprises promote natural resource extraction in Indigenous territories, 'with the affected indigenous peoples at best being offered benefits in the form of jobs or community development projects that typically pale in economic value in comparison to profits gained by the corporation' [11] (p. 3). Anaya articulates a 'preferred' model involving resource extraction through Indigenous peoples' own initiatives and enterprises (as long as environmental risks are minimised). He outlines this model as follows, with reference to UNDRIP, Article 32(1) [11] (p. 5):

> As part of their right to self-determination, 'indigenous peoples have the right to determine priorities and strategies for the development or use of their lands and territories'. This right necessarily implies a right of indigenous peoples to pursue their own initiatives for resource extraction within their territories if they so choose. In cases in which indigenous peoples retain ownership of all the resources, including mineral and other subsurface resources, within their lands, ownership of the resources naturally includes the right to extract and develop them. But even where the State claims ownership of subsurface or other resources under domestic law, indigenous peoples have the right to pursue their own initiatives for extraction and development of natural resources within their territories, at least under the terms generally permitted by the State for others.

Anaya also states clearly that Indigenous peoples have the right to decline to pursue such developments, and to decline to be consulted on such developments. He refers to the rights to freedom of expression and to participation, which are established in international human rights law, according to which Indigenous individuals and peoples have the right to oppose extractive projects. He asserts the right to freedom from reprisals and violence in response to such protests, with reference to the UN Guiding Principles on Business and Human Rights and the Voluntary Principles on Security and Human Rights. He also states that Indigenous peoples should be free from pressure and coercion to

accept extractive projects or to engage in consultation; while affirming the principles of FPIC, which he terms the 'general rule' for decision-making relating to extractive projects within indigenous territories.

Anaya argues that the 'preferred' model is 'by its very nature more conducive to the exercise of indigenous peoples' rights to self-determination, lands and resources, culturally appropriate development and related rights' [11] (pp. 4–5). Anaya also states that, in the light of Indigenous peoples' claims to land and resources, and their stewardship role in safeguarding these for future generations, 'recognising a priority for indigenous peoples for the extraction of resources within their territories is a matter of equity if not of entitlement' [11] (p. 6). Further, he argues that it is also a matter of good practice, since resource extraction by Indigenous peoples themselves maximises the possibility that it will be undertaken with respect for their rights and interests. As such, this type of development will reduce the risk of instability in such development, while profits are also more likely to stay within the country, and capacity enhancement will benefit local people.

In practice, Anaya observes that Indigenous peoples are frequently marginalised in resource development. He identifies strategic planning as a critical area for participation, but observes that Indigenous peoples are very rarely involved at this stage of development planning in resource sectors, and rarely have the opportunity to determine the direction of extractive industry projects. He also observes that many Indigenous people currently lack the required business and technical skills, strategic partnerships and start-up investment, and advocates government assistance to those Indigenous people who may want to pursue such business opportunities 'in contrast to the alternative of seeing the natural resources within their territories being extracted under the control of others' [11] (p. 6). To this end, Anaya proposes that governments (and where appropriate international donor agencies) support programmes of grants, loans, tax breaks, advisory services, skills training and scholarships, as well as preferential licencing and permitting for Indigenous peoples.

3.4. Implementing Norms in Practice

In this section, benefit sharing practices in three Arctic countries are compared in the context of extractive industry development on Indigenous peoples' lands. In line with the analysis of the standards presented above, benefit sharing is seen within the wider context of the development model for resource extraction. A key question is whether or not this development model grants the space for Indigenous peoples to 'determine development priorities' through involvement in strategic planning, as an essential foundation for equitable benefit sharing.

Since the 1970s, Norway has become one of the leading countries for local content policy in its (offshore) oil and gas sector, which has stimulated the growth of a globally competitive industry; and it is also lauded for the success of its sovereign wealth fund [15,88]. There is a—sometimes powerful—role for local government in decision-making on mining projects, which has empowered one Sami municipality to reject a gold mining project (see below). However, the role of municipalities is seen by some as a source of weakness or confusion in decision-making—and certainly as an area ripe for policy review [10,89]. Norway has also been criticised in relation to its tax regime that limits the flow of project benefits to local communities; the politicization of environmental and mining issues; and the lack of success in translating public consultation into meaningful public involvement in resource-related decision-making [90–92]. Moreover, resource extraction is still practiced within an overall extractivist model of development in Norway (as elsewhere). In the case of the Nussir copper project in northern Norway, while the company was given credit for its inclusive approach and concern for the local population, some local stakeholders felt there was little space for debate about 'the multiple concerns about values other than those measurable through economic growth' [89].

Norway has also been criticised for its lack of attention to Indigenous rights, despite having legislation and institutions to support Sami rights [73,74]. This includes the ability of Sami institutions to influence strategic-level decisions about resource development. While Norway's Minerals Act (2009) has undergone consultation with the Sami Parliament, the lack of a specific clause on benefit sharing for the Sami is one of several reasons why the Sami Parliament has not approved it [72,93]. Mining

activities need to secure certain approvals from the local authorities and land-owners early in the project cycle [93]. However, in Norway's northern Finnmark county where many of the Sami live, the official landowner is the Finnmark Estate, which collects the 'landowner fee' on behalf of the people of Finnmark [94], while mining companies can still obtain exploration licences for lands used by Sami reindeer herders, without engaging in advance in a process of meaningful consultation or FPIC with the local herding communities [55].

In 2012, in Sami-dominated Guovdageainnu (or Kautokeino) municipality, a reindeer-herding region of Finnmark County, the elected municipal council voted (narrowly—reflecting the wider community split) in favour of protecting reindeer herding livelihoods rather than allowing an environmental impact assessment to go ahead that could potentially give the green light for the Biedjovaggi gold mine to be re-opened in the area [94]. It was not Norway's commitments under ILO 169, but its decentralized decision-making arrangements (under the Norwegian Planning and Building Act) which allowed this to happen [93]. The project proponent, Swedish company Arctic Gold, challenged the legality of the 2012 vote, offered a one-off payment of around 2 million GBP to the community, and drafted a form of benefit-sharing agreement (to implement if the project went ahead), but in 2013, the municipal council again voted (narrowly) against the project [93,94]. Following municipal elections in September 2015, the newly elected council immediately placed a four-year moratorium (until the next elections) on discussions about Biedjovaggi, in order to focus on other aspects of socio-economic development [55]. Magnussen and Dale suggest viewing this decision as the evaluation not only of the potential economic benefits of the mining project, but also aspects of the local way of life that are valued in non-monetary ways—such as 'being Sami', living within an undisturbed landscape, and resisting political influence from Oslo [93]. However, the municipality did not go so far as to exclude the possibility of mining from the local area plan, and with the next round of municipal elections the mining question could arise once more.

In Russia, there is no national regulation determining how companies ought to share benefits with local and Indigenous communities, although the rights of (most) northern Indigenous peoples are protected by relevant legislation, including the right to set up a tax-free *obschina* (or commune) to protect their legal rights to traditionally used lands, which can form the basis to claim compensation [95,96]. Greater centralisation under President Putin, along with revisions to the federal law 'On subsurface resources', have reduced the amount of control that Russia's resource-rich regions have over revenue distribution. The regions benefit from income taxes and some land taxes, but the federal mineral tax goes to Moscow. This arrangement means that compensation and companies' social investment projects take on greater significance for local people [49].

Nonetheless, regional governments in Russia's Arctic and Far Eastern regions with significant populations of Indigenous peoples, have developed their own regulations governing extractive industry activities, including benefit sharing [5]. Some require companies to negotiate an agreement with local Indigenous resource users prior to securing their licence to extract resources, with or without regional government participation [2,97]. In some cases, the lack of government involvement in some of these agreements has been seen as a weakness [5]. In other cases, as in Russia's Komi Republic, a shift away from centralized agreement-making towards greater control by local Indigenous communities has led to the strengthening of local institutions and greater economic independence for Indigenous resource-user groups [8,49].

The role of international companies and international financial institutions has also had an effect on the way that benefit sharing is practiced with Indigenous communities in the Russian extractive industry context. On Sakhalin Island, in the Russian Far East, for instance, the Sakhalin-2 offshore oil and gas project sought to secure project finance from the European Bank for Reconstruction and Development (EBRD) for Phase 2 of the project. In 2005, following protests by the local Indigenous resource-users, the EBRD asked the proponent company Sakhalin Energy to prepare and implement an Indigenous peoples' plan [98]. The Sakhalin Indigenous Minorities Development Plan (SIMDP) was launched in 2006, with Indigenous governance structures in place, and has been running since

then, with later involvement of the regional government and with plans employing an FPIC process to reach agreement [4,50,99]. The Yamal liquefied natural gas (LNG) project in northern Russia, carried out a 4-year FPIC process with local Indigenous communities, which ended in 2014 with the signing of FPIC declarations and agreement on an Indigenous Peoples' Development Plan that included support for local Indigenous populations [77,100,101]. This was largely in response to the requirements of the Equator Principles financial institutions lending to the project.

Canada has considerable experience of inclusive resource development models and benefit sharing with Indigenous communities, and is still viewed as a leader in this area, despite controversies surrounding the implementation of UNDRIP in the country [102]. In their study of Canada's difficult relationship with UNDRIP, Favel and Coates challenge the heavy emphasis on FPIC in public debates, which they feel obscures other UNDRIP imperatives such as ensuring that Aboriginal communities meet the living standards of the wider Canadian population, which, they argue, can sometimes be achieved through equitable and respectful partnerships with extractive companies [75].

Where land claims have been settled, First Nations may own surface and subsurface rights within the land claim settlement area, although some land claims negotiations have lasted many years and remain locked in disagreement over land and resource-based benefit sharing [16,103,104]. Canada has no federal legal requirement for benefit-sharing agreements, but the practice of signing such agreements is widespread [56,60]. As part of the Nunavut Land Claims Agreement, for instance, resource developers are obliged to negotiate Impact and Benefit Agreements (IBAs) with the regional Inuit associations, as a condition of the licence. A study of the use of IBAs in Nunavut concluded that they are an effective way to ensure that industrial developers commit to benefit sharing with local communities, but that IBAs would be more equitable and have a greater sustainability impact if decision-making were devolved more to the beneficiaries [105]. Another model is that of the Aboriginal development corporation: these are community-based, collectively owned enterprises, many of which have become significant economic players. Many have benefited from funds from modern treaties and legal settlements, revenue from resource activity and arrangements with oil-sands companies pledging benefits to Aboriginal enterprises, such as priority access on bids [24].

Yet, despite efforts to ensure greater Indigenous involvement in resource development, observers note that underlying issues of poverty and inequity persist. Irlbacher-Fox notes that land-claim negotiations in Canada cannot be separated from the colonial heritage of the government–Aboriginal relationship, observing that while communities may have access to the procedures of participation, the historical context and forms of communication within negotiation forums mean they frequently cannot influence the thinking of the people they are negotiating with [103]. Meanwhile, in 2016, the Mining Association of Canada (MAC) issued a Position Statement on Government Resource Revenue Sharing between the Crown and Aboriginal Communities [103]. It observes that despite the existence of 265 active agreements between mining companies and Aboriginal communities across Canada, as well as joint ventures, collaborative planning efforts, training and employment initiatives, there is still a need to address outstanding issues of poverty and ensure greater consistency in the flow of benefits. MAC suggests that government resource revenue sharing with Aboriginal communities—as distinct from bilateral arrangements between companies and communities—could provide these communities with 'greater opportunities to participate in the mineral exploration and mining industry and significantly contribute to the elimination of socio-economic disparities between Aboriginal and non-Aboriginal Canadians' [106] (p. 2).

4. Discussion

Different models of benefit sharing—and individual elements within those models—are distinguished largely by the degree to which the state, companies and local communities are involved in and control the distribution of benefits, while other drivers include the role of international finance and global civil society networks. Key types of benefit-sharing and related activities are summarized in

Table 1, which offers a typology based on existing typologies and categorizations [8,11,44,45], drawing on the standards and practices analysed in Section 3.

Table 1. Elements of benefit-sharing models for local and Indigenous communities.

Type of Model	Description
A. State-Controlled Benefit Sharing	
Taxation, revenue payments and revenue distribution	Governments have the responsibility to establish and enforce regulations, and there is increasing pressure for greater transparency of revenues paid to governments and how these are used. Companies bear their own responsibility for paying taxes, not avoiding them, and, where required, e.g., under the Extractive Industries Transparency Initiative (EITI), to report on what that they pay to governments.
Local content obligations	Targets for the hiring of local workers and procurement of local goods and services may be included in host government agreements with companies, and in some cases is legislated. Government-mandated local content is frequently interpreted as 'national' content, rather than targeting local and Indigenous communities.
Mandatory social investment	Social investment spending can be mandatory as part of a host government agreement or national legislation, whereby companies are required to invest in infrastructure programmes, such as road construction or health facilities, as a condition of their licence.
B. Voluntary Company-Led Initiatives	
Philanthropy	Companies may voluntarily engage in community spending in addition to their mandatory obligations under contracts and licences. Philanthropic support might include medical facilities, cultural or sports programmes, scholarships and environmental projects.
Strategic social investment	Increasingly companies seek to target their social investment spending on programmes designed to survive beyond the life of the industrial project and/or to create value for the industrial project. These might include micro-credit programmes, local livelihoods support programmes, skills training, enterprise development support, or conservation programmes.
C. Partnership Model	
Voluntary local content initiatives	Companies may develop partnership programmes based on voluntary targets and initiatives to train and bring in the local and Indigenous workforce to a project, with training and enterprise support linked to opportunities to secure employment or contracts, often with an element of preferential contracting. This may or may not form part of a wider benefit-sharing agreement.
Benefit-sharing agreements	Benefit-sharing agreements are negotiated directly with communities and may include cash payments, profit sharing, local hiring, skills development, education, cultural support and environmental protection. These are likely to be closely related to impact assessments, and may also provide the basis for a process of free, prior and informed consent (FPIC).
D. Indigenous Ownership and Control	
Indigenous ownership	Indigenous ownership might include Indigenous peoples' ownership of companies or equity shares in enterprises involved in extracting or processing resources or enterprises providing services to the industry. Opportunities can be enhanced through government support and preferential hiring and contracting.
Indigenous control	Indigenous control relates to Indigenous peoples' right to determine their own development priorities and strategies, and includes participation in strategic-level decision-making on resource-related policies, programmes and regulations, including resource mapping, zoning and land allocation, and processes of FPIC where appropriate.

The coverage of benefit sharing in international instruments frequently lacks clarity; there is no standard format or quantitative guidance on how to structure the distribution of benefits from a project; and there is no identified optimal ratio of involvement of public and private sector, as much will depend on the specific local context [8]. On the other hand, many guidance documents have been produced by standard-setters, industry guidance bodies, consultants and NGOs, while scholars have covered the area of benefit-sharing in some depth (see Section 3). Good practice can be identified, but

this is mostly presented in terms of processes and procedures to be carried out in the context of the prevailing 'extractivist' model of development [11,29]. A key finding from this research is that 'fair and equitable benefit sharing' needs to start by reassessing the wider development model and ensuring greater Indigenous peoples' involvement in strategic-level decision making and setting the rules of the game and related forms of communication and engagement.

This paper focuses primarily on Indigenous peoples and Indigenous rights. However, this discussion cannot ignore the fact that certain Indigenous peoples are arbitrarily excluded from rights because they are not officially recognized as being Indigenous, while other groups are not technically Indigenous but are nonetheless highly dependent on the land and resources of a particular place and therefore especially vulnerable to extractive industry activities. International financial institutions and companies struggle to accommodate those groups who may wish to claim Indigenous status in a project context, but who are not technically eligible to be considered 'Indigenous' and to trigger the relevant performance standard. This can be a genuine dilemma in a specific project context, but it can also be a distraction from the priority of protecting the rights and addressing the needs of vulnerable local communities. While equitable benefit sharing is considered to be good practice in both Indigenous and non-Indigenous communities, Indigenous peoples are entitled to greater participation in decision-making and to benefit sharing arrangements that are part of a wider process of FPIC. It seems inappropriate to deny this opportunity to certain vulnerable, resource-dependent communities simply due to a question of definition. More guidance is needed for practitioners to understand how to tackle this question more sensitively. 'Vulnerability' is one possible entry point, but the vulnerability of Indigenous communities is an additional consideration to their right to self-determination and the implications of that in a project context. Thus self-determination and vulnerability both need to be addressed appropriately.

The Biedjovaggi case would indicate that the Norwegian government is not fully meeting its obligations under ILO 169 or UNDRIP by not involving the Sami enough in decisions that directly relate to them at a strategically early point in the planning process. This approach not only threatens Indigenous livelihoods, it also puts companies at financial risk if they invest considerable amounts of money in exploration activities, only to discover that the local community is opposed to the activity and may have the power to halt it. In the Biedjovaggi case, this resulted in the Swedish proponent company making multiple forceful attempts to convince the municipality to agree to the project, even after it had refused on two occasions. Scholars have also drawn attention to the need to evaluate such cases not only in economic terms, but in terms of those non-economic aspects of life that are valued by local and Indigenous people.

In Russia, three key drivers have particularly influenced benefit sharing models in particular project contexts—regional government regulation, international scrutiny and local public protest. International governance and Indigenous rights principles have reached outlying regions of Russia via international projects, which have even incorporated FPIC into their procedures. Nonetheless, these projects are still implemented within the 'extractivist' model of resource development. By its very nature, the promotion of meaningful stakeholder engagement and FPIC by multinational corporations and international financial institutions comes too late to ensure adequate involvement of Indigenous peoples in early strategic-level decisions. The regional governments perhaps have the strongest opportunity to do so, by including Indigenous representatives in planning processes and development of legislation. This does take place in some cases and should be studied further [5].

In Canada, while the practice of proponent-Indigenous agreement making is widespread, and despite great progress in developing Indigenous-owned and run businesses for the extractive industries, there is still an important role for the government in benefit sharing in addition to the partnerships and agreements between companies and Aboriginal communities. This would reflect government obligations under UNDRIP to ensure continuing improvement of Indigenous peoples' economic and social conditions. Yet the government role is frequently set within an extractivist paradigm influenced by the colonial history, which undermines opportunities for equitable outcomes from negotiations.

Where Aboriginal Canadians have secured greater control of local government, as in Nunavut, they still tend to promote an extractivist model of resource development and there is a risk that power becomes concentrated in the hands of the governing elite, while local resource users remain marginalized. This challenge of ensuring equity through devolved decision-making within an already devolved Indigenous governance structure is also present elsewhere, notably in Greenland [69,71]. Therefore the level and nature of Indigenous representation becomes a critical aspect of Indigenous rights implementation and equitable benefit sharing in practice.

5. Conclusions

This article has explored standards, principles and practice related to benefit sharing in the context of extractive industry development on Indigenous peoples' lands, with the aim of identifying what models or elements of particular models serve to ensure greater equity and respect for Indigenous rights. All the case studies discussed in Section 3.4 are embedded within an extractivist development model, which James Anaya identified as the 'prevailing model' of resource development, and this can be said of most experience of benefit sharing in the extractive industries, even the most progressive. From the outset of developments, the extractivist bias in priorities and mindsets tends to compromise the ability of Indigenous resource users to benefit in an equitable manner from extractive industry development on their lands. In particular, the lack of involvement of Indigenous peoples in making strategic decisions about extractive industry development on their lands—decisions including the allocation of land for extractive industry activities and the granting of exploration licences—undermines the possibilities for equitable development outcomes.

It is likely that the extractivist model of resource development will continue to prevail for some time to come, although increasing awareness of the potential for Anaya's 'preferred' model may lead to wider innovation in that direction. This would more closely reflect government obligations under ILO 169 and UNDRIP to ensure continuing improvement of Indigenous peoples' economic and social conditions and to ensure that Indigenous peoples are able to determine priorities and strategies for development that takes place on their lands; and to ensure 'fair and equitable sharing of benefits' arising from resource development, in line with the principles established by the CBD, the Nagoya Protocol and the Akwe:Kon Guidelines.

While it may be an unfamiliar development paradigm for many governments, the 'preferred' model is already being implemented, at least partially, in some Arctic and sub-Arctic contexts. This includes efforts by the public and private sectors, including policy incentives and support for Indigenous enterprise development, preferential contracting, and embedding the principle of FPIC in decision-making structures and processes. Corporate approaches, such as those implemented by multinational corporations in response to the requirements of international financial institutions, or by enterprises that are simply more in touch with the communities in which they operate, provide the opportunity to analyse the results and effectiveness of such approaches. This can lead to greater adoption by industry associations and individual companies, and within government regulation at the national and sub-national levels.

Greater participation of Indigenous peoples at the strategic level in extractive industry planning and programme development—to determine priorities for their own development—may also prove to be a more effective foundation for equitable benefit-sharing and a stronger social licence to operate for extractive projects, if they are to go ahead. This offers potential benefits to governments—through reduced risk of social unrest and opposition, and increased security and predictability for investors. This may require a longer time frame for developing the natural resources, and may also require some resource-rich lands to be set aside and not developed, as part of strategic zoning agreements with Indigenous representative institutions and local Indigenous landowners and land users. However, in the longer term it may prove to be a more effective, sustainable and stable development model.

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