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Between Soviet Legacy and Corporate Social Responsibility: Emerging Benefit Sharing Frameworks in the Irkutsk Oil Region, Russia

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Abstract: Benefit sharing arrangements are a central element of the interactions between oil companies and local communities in resource regions of the Arctic and sub-Arctic. This paper focused on developing a systematic understanding and typology of benefit sharing arrangements within the oil sector in the Russian Arctic and sub-Arctic, using the Irkutsk Oil Region as a case study. It provided a critical analysis of prevalent arrangements and practices (modes and mechanisms of benefit sharing), as well as examined institutional and social underpinnings of these benefit sharing frameworks. Qualitative methodology with semi-structured interviews were used. The paper demonstrated that sub-Arctic communities are not equally benefiting from oil and gas extraction. Despite a considerable variety of existing arrangements revealed by this study, no benefit sharing mode or mechanism prevalent today ensures sustainable development of local communities. This may stem from the incompatibility between post-Soviet legacies, corporate social responsibility principles, and local institutional frameworks. Although focused on a particular region, this research was indicative of general benefit sharing patterns in modern Russia and beyond.

Keywords: benefit sharing; extractive industries; natural resources; Russia; Arctic; corporate social responsibility

1. Introduction

Natural resource extraction in peripheral and remote areas is one of the few opportunities to bring economic development to these regions. However, benefits of such development to local communities could be highly variable, and sometimes overshadowed by negative environmental and economic impacts. If improperly managed, resource development may become a contributing source to economic and social crises, conflict, and worsening economic conditions among the impacted regions. Examples include the ‘resource curse’ [1–3], inequitable profit distribution [4], displacement of vulnerable groups [5], and rise in criminal activity [6]. These negative derivatives arise from the (neo) colonial model of resource development, where profits and benefits are directed to the extra-local companies, whilst local stakeholders receive a minimal share [7].

Sustainable development within resource regions, particularly in the Arctic and Sub-Arctic, is embedded in equitable and just sharing of the benefits of extractive activities. In this view,

development can be considered sustainable if it improves the well-being, health, and security of Arctic residents and communities, while preserving ecosystem structures and resources [8]. Different ways, in which impacts of resource extraction are mitigated and benefits are shared, contribute toward sustainability in affected communities [9]. A better understanding of benefit sharing arrangements in the context of global standards, national legal frameworks, corporate social responsibility, local conditions, and rights of the Indigenous peoples is needed to elucidate the nature of sustainable development processes, and its outcomes within the extractive regions [10].

The goal of this paper was to examine benefit sharing practices of resource companies in Northern Russia, and their institutional and social underpinnings. Our focus is on the Irkutsk region of Russia, one of the hubs for oil and natural gas production, and part of the East Siberian Oil and Gas Complex megaproject [11]. The exploration started there in the 1960s, during the Soviet era. Active industrial oil production began in the late 2000s, and reached 18.2 million tons per year in 2017. The main factor contributing to rapid production growth was the completion of the East Siberia-Pacific Ocean oil pipeline in 2009. Currently, there are several large oil companies operating in the region: Irkutsk Oil Company, Verkhnechonskneftegaz, Rosneft, Gazprom Dobicha Irkutsk [12]. Further in the article, we focus on the Irkutsk Oil Company (IOC) which is registered in Irkutsk, remains a major taxpayer in the region, and has specific benefit sharing arrangements with the Indigenous peoples and local communities.

The paper pursues the following objectives: (1) Describe and develop the typology of benefit sharing arrangements between oil companies and local communities in Northern Irkutsk Oblast' (region); (2) Provide a critical analysis of prevalent arrangements and practices; and (3) Identify and analyze institutional and social underpinnings of these benefit sharing frameworks. Although focused on a particular region, this research is indicative of general benefit sharing patterns in modern Russia.

2. Literature Review

2.1. Benefit Sharing and Corporate Social Responsibility

In recent decades, there have been global paradigm shifts with respect to building relationships with local communities. This has extended, but is not limited to communities located within the Arctic and Sub-Arctic. It started from compensation payments, and has evolved to benefit sharing as a leading concept of sustainable resource governance and one of the instruments for implementing corporate social responsibility (CSR) [13].

CSR represents corporate self-regulation, which involves companies' compliance with both national legislation and international standards. Definitions of CSR include "the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large" [14], and "the responsibility of an organization for the impacts of its decisions and activities on society and the environment through transparent and ethical behavior that contributes to sustainable development, takes into account the expectations of stakeholders, complies with applicable law and is consistent with international norms of behavior, is integrated into the activities of the organization and practiced in its relationships." [15] The European Union defines CSR as "A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders on a voluntary basis" [16]. Therefore, CSR involves transparency, consultations with stakeholders, labor rights, safety, and commitment to environmental protection [17].

The literature has established firm links between CSR and sustainability as pertains to business, environment, and society [18]. CSR may contribute to sustainable development and be instrumental in achieving sustainability goals, for both communities and companies. There is evidence that firms achieve economic sustainability more often when CSR strategies incorporate the interests of stakeholders, as well as environmental and social performance [19]. Moreover, studies show that

CSR may help firms improve management, achieve strategic goals, and inspire employees for better performance [20].

In comparison with the CSR concept, the ethical side of benefit sharing incorporates social justice to overcome the discrepancy between those who provide resources and those who benefit from industrial exploitation of these resources. Consequently, benefit sharing may relate more closely to the needs and perspectives of Indigenous and local people than CSR [21,22]. Additionally, it is more empowering and enabling with respect to local communities, as it also gives agency to the local actors in decision making. In other words, it is even more relevant for community sustainability and sustainable development in remote regions [8].

The concept of benefit sharing originates from the Convention for Biodiversity Preservation of 1992 and the Nagoya Protocol [23,24]. It is described as an exchange between actors granting access to a particular resource, and actors providing compensation or reward for its use [25], as well as to the distribution of the monetary and non-monetary benefits which are generated by a resource-based project [26]. Building on existing definitions [25,27], benefit sharing can be defined as the act of sharing a portion of advantages or profits derived from the use of resources, land, or traditional knowledge with the resource providers. The monetary benefits may include development and investment funds, equity sharing, and tax sharing with governments. The non-monetary benefits may include education facilities, medical facilities, employment, local procurement, training of staff, and improved service access [28].

Benefit sharing is also sometimes contrasted to compensation for resource use, land expropriation, etc. The criticism of compensation as a tool of economic development has recently escalated [29]. Compensation by its nature has nothing to do with sharing benefits of development, or investing in an affected community. It is a merely restitution of what has been lost. Therefore, compensating a community is not a forward-looking process designed to invest in local well-being. Therefore, expanding compensation practices to include long-term benefit sharing is more advantageous and fairer.

An important question which needs addressing is the nature and classification of benefit sharing frameworks and mechanisms [30]. One aspect is the level of legal regulation, which can fluctuate from very high, such as Canadian Land Claim Agreements (CLCAs), to very limited, such as in Impact and Benefit Agreements (IBAs). IBAs, for instance, are agreements between communities and companies both acting as private entities. Another differentiating element is the degree of empowerment of local stakeholders, such as the ability to negotiate, to say “no” to development, and to actively promote their interests, as opposed to simply being the recipients of company ‘giveaways’ [31].

Despite a growing volume of literature on benefit sharing in the Arctic extractive sector [27,28,32–37], the major remaining knowledge gap is the lack of systematization and knowledge synthesis [37]. Although benefit sharing arrangements vary by industry, region, and community, improving our understanding of the systematic advantages and disadvantages of existing benefit sharing frameworks allows identifying approaches to benefit sharing, which may lead to more fair and equitable distribution of benefits. This paper builds on the conceptualization of benefit sharing arrangements (in particular, modes and mechanisms), and grounds this by using a multi-year study conducted in the Irkutsk oil region of Russia.

2.2. Conceptual Approach: Benefit Sharing Frameworks and Russia’s Resource Sector

A resource extractive economy in the periphery is problematic with respect to local economic and social development, in addition to its environmental impacts. Although mining and other extractive activities undoubtedly deliver economic gains, they most often favor companies and other non-local actors, including national governments [38]. The fundamental issues associated with resource extraction at the local level can be explained in various ways by different theories, but generally stem from the dependency of local economies on external markets and actors, the effect of economic decoupling (i.e., resource sector is relatively detached from the local economy),

“resource curse” (i.e., outpricing other forms of activity from labor market), weak human capital, and lack of competing technological paradigms [39,40]. Uneven power relations between national and regional authorities and local communities, as well as between these communities and large companies, are particularly critical because they exacerbate dependency and uneven development by depriving remote communities the ability to control extractive activities and manage their benefits [41].

Broadly speaking, if existent, benefit sharing arrangements depend on predominant legal, institutional, and cultural environments. This concerns the nature of the extractive company (e.g., vertically-integrated multinational vs. locally based), multinational corporation of Russian or of Western origin, the strength of local institutions (e.g., Indigenous self-governance, level of municipal independence vs. external control), the degree of regulatory and policy support, and cultural traditions for both businesses and communities [42].

Typical benefit sharing ‘channels’ include local employment, procurement, new infrastructure, community investment, government payments, and compensation [34]. Whilst employment, procurement, and infrastructure development produced by resource activities can create benefits, most of the discussions around benefit sharing arrangements revolve around the latter three channels. Community investment can be defined as “voluntary actions or contributions by companies beyond the scope of their normal business operations.” Compensation will encompass “payments made by resource companies to mitigate the impacts generated by projects”. Finally, government payments include “taxes and royalties as well as other payment schemes, including voluntary contributions, which exist between mining companies and various levels of government which are intended for redistribution to communities through some form of benefit sharing mechanism” [35]. Many of the investment, compensation and payments activities are conducted through various financial arrangements established to accomplish this task: Foundations, Trusts, and Funds [34].

Russia exemplifies a peculiar benefit sharing system, which combines the elements of Soviet-era state paternalism and western-style benefit sharing strategies (often imposed by foreign investors). In contrast to other circumpolar jurisdictions, Russia does not have well-developed mechanisms to create, manage, and channelize benefits from extractive activities to surrounding communities. Although Russia’s federal legislation on the Indigenous nature use is relatively strong [41,42], it is generally declarative and lacks clear application mechanisms [43]. Thus, legal and management frameworks underpinning benefit sharing in other parts of the Arctic, such as CLCA or IBA, are not available in Russia. However, in some regions (e.g., Republic of Sakha (Yakutia), Khanty-Mansi Okrug), this gap is partially filled by regional laws. In the remainder of this section, we build on the case study of the oil industry in the Irkutsk region, to further elucidate the benefit sharing system in the Russian oil sector and unveil its complex and intricate structure.

Drawing from literature and our previous studies [9,10,12,17,21,32,34,36,37], several ideal types (modes) of benefit sharing arrangements have been identified: Paternalistic, company-centered social responsibility, partnership, beneficiary, and shareholder modes [36] (see Table 1.) They result in different outcomes for local communities and Indigenous peoples [37]. However, in Russia, only the first three modes are present [37], and they are described below in more detail.

Table 1. Benefit Sharing Modes and Mechanisms.

Mode	Mandated	Negotiated	Semi-Formal	Trickle-Down
Paternalistic	Tax/royalty state revenues distribution	State-imposed socio-economic agreements with regional and district authorities	Plea and take sponsorship system	New jobs (company, public, other sectors) Income growth. Infrastructure investment
Company-centered social responsibility	Community investment funds and foundations	Negotiated payments, agreements, and arrangements based on outside standards, shareholder requirements, and/or corporate policies	Sponsorship and charitable contributions	New jobs (company, public, other sectors) Income growth Procurement through indigenous and local businesses Infrastructure investment
Partnership	Investment programs Production shared agreements	Tripartite agreements based on international standards or global company policies Grants and investment programs Voluntary local/indigenous employment quotas and hiring preferences	—	New jobs (company, public, other sectors) Income growth Procurement through indigenous and local businesses Infrastructure investment
Beneficiary	Benefits are shared among beneficiaries through non-profit regional economic development corporations.	Impacts and benefits agreements (IBAs) between communities and companies.	—	New jobs (company, public, other sectors) Income growth Procurement through indigenous and local businesses Infrastructure investment
Shareholder	Dividends from permanent funds, native corporations, etc.	Shareholder-driven negotiated benefits	—	New jobs (company, public, other sectors) Income growth Procurement through indigenous and local businesses Infrastructure investment

Paternalistic mode: The state is a dominant actor in this mode, and it monitors and intervenes in companies' corporate social responsibility. The company adds to or substitutes the state's efforts to provide support to local communities and Indigenous peoples, who do not control the delivery of benefits. In Russia, the paternalistic mode is rooted in the lingering effects of the Soviet past, and often results in the Indigenous peoples' dependency on the oil companies [17,44,45].

Company-centered corporate social responsibility (CCSR) mode: The companies adopt globally developed standards, coming primarily from international organizations and investors. Companies pursuing benefit sharing arrangements consider both global standards and local path-dependent practices. As explained earlier in this paper, the company-centered corporate social responsibility (CCSR) mode may involve compensation for damage, including sponsorship of cultural and sporting events, grants or other payments. Involvement of Indigenous peoples in decision making related to benefit sharing is limited [37]. CCSR is defined more narrowly than CSR, as it only involves activities that companies engage in to avoid risks and comply with the set of rules necessary for its operations. Decisions and activities are designed to address narrowly-conceived company compliance needs and relationships with other actors, based on corporate self-regulation.

Partnership mode: This type of benefit sharing rests on the tripartite partnerships among the oil companies, government, and Indigenous communities [46–48]. The partnership mode fosters development, empowerment, self-sufficiency, and participatory decision making in the Indigenous communities. In Russia, this mode has been implemented at Sakhalin Island, but it is not present in the study region.

All modes of benefit sharing arrangements involve a system of delivery of such benefits through different mechanisms. Below we present a general description of this system by describing key types of benefits, and we subsequently discuss case studies in Irkutsk Oblast'. We identify four types of benefit sharing mechanisms prevalent in the Russian resource periphery: Mandated, negotiated, semi-formal, and trickle-down benefits. Combined with benefit sharing modes, they could provide a useful systematization of benefit sharing arrangements, as depicted in the matrix (Table 1). Although the discussion below exclusively pertains to the Russian context, and Irkutsk Oblast' specifically; some similar types of modes can be found elsewhere in the Arctic and the Global South.

Mandated benefits: These are associated with specific acts of legislation, regulation, and contractual agreements. Benefits-sharing is unambiguous, implementation and distribution processes are well identified, and repercussions for noncompliance are prescribed. Mandated benefits under the paternalistic mode are exemplified by royalty payments, production sharing agreements, and taxes. Taxes are an important way of distribution of oil wealth all over the world; however, they are allocated differently [49]. Taxes must be paid by companies and are distributed based on legislation (national, regional, or local). In Russia, tax revenues are rarely controlled by local authorities and thus deliver only marginal benefits to communities, often serving interests of the higher-level governments. The bulk of taxes are collected at the federal level and then redistributed to regional authorities, that in turn, redistribute these collected taxes amongst municipalities [49]. Resultantly, only a small fraction of taxes associated with a resource activity reaches the resource communities. Another form of mandated benefits is community investment funds (under CCSR) and production sharing agreements (under partnership). In Russia, production sharing agreements are implemented in Nenets Autonomous Okrug and Sakhalin Island only, which allow those areas to keep a significant amount of oil benefits in their regions [46].

Negotiated benefits are an eclectic group of negotiated arrangements between companies and regional, district, and municipal authorities, or directly with communities. These arrangements are often triggered by external actors, such as the state or a foreign investor. This form of benefits is most closely associated with community investment. A classic example of this type of benefit sharing arrangement is a direct benefit agreement, such as IBA [50]. However, in Irkutsk Oblast' and in the general Russian practice, IBAs are not utilized.

In Russia, in this group we include the socio-economic cooperation agreements imposed (formally or informally) by the federal or more often, regional authorities as a legacy of the Soviet state practices, and the implementation of the requirements instituted by foreign investors or partners. The post-Soviet practice encompasses a culture of expectation, and a system where a part of the normal state functions are fulfilled by the extractive industry. The federal, regional, or local state acts as an imposing authority, by placing some of its responsibilities and costs on an operating company. This may include utilities, housing, road maintenance, provision of supplies, etc. The origin of this benefit sharing system is deeply rooted in the Soviet economic model; this economic model was designed for the extractive industry to be represented by state-owned enterprises [51,52]. Although much of these functions since then have been returned to the state, the remnants of the state paternalistic system still exist, especially in remote areas. Although local governments are frequently involved in bidding for benefits stemming from these agreements, benefits negotiation, and distribution is highly centralized. This system gives little voice to community, and mostly serves the interests of the state in its paternalistic interpretation of the local needs.

Requirements imposed by foreign investors or partners is another form of negotiated benefits-sharing. Receiving loans from foreign entities or partnering with international companies may imply certain expectations. As discussed below, smaller regional extractive companies may be more open to such loans and partnerships to get access to capital. Lenders, such as the European Bank for Reconstruction and Development (EBRD), put conditions which require some benefit sharing. However, it may not be well connected to real community needs and faces implementation challenges, if these standards are not tailored to the local realities. In such cases, implementation of global standards can be viewed as a top-down practice that leads to little local empowerment.

Semi-formal benefits are part of a more informal “plea-and-take” system, where a company may choose to “share benefits” by responding to semi-formal requests from community actors, local authorities, or private citizens. All these benefits are informally or semi-formally negotiated, often without much transparency or public participation. This system stems from the Soviet-era expectation where, if asked, a company should be helping local people and communities. “Plea-and-take” is a convenient and inexpensive way to strengthen a company’s social license by choosing to respond to particular pleas received from local residents, organizations, or authorities. The decision-making power always rests with the corporate leadership, and it is often perceived as a compensation mechanism reflecting the company’s good will, to which a local community is not formally entitled. From a company’s standpoint, this is a “social expenditure” embedded in its role of a dominant local economic actor.

Trickle-down benefits include gains experienced by the community through general economic impacts, such as income growth, employment, increased consumer spending, rising real estate prices, new infrastructure development, etc. These channels are well documented in mining and other resource industries [35]. Trickle-down benefits are unevenly distributed and highly variable. They may be affected by government regulations, local culture, and social processes. One example would be the creation of local jobs. Trickle-down benefits are typically unspecified in benefit sharing agreements, as they emerge due to the multiplier effect in the economy, increase in cash flow in local consumption, and other economic gains. However, some of the benefits may be affected by company’s policies; for instance, by a reluctance to employ locally.

The mode-benefit delivery type matrix (Table 1) demonstrates that different mechanisms of benefit sharing permeate various benefit sharing modes. Trickle-down benefits are most widely observed, since they are largely unintentional. Mandated and mediated benefits are more prevalent under the CCSR and partnership modes, whilst semi-formal arrangements belong to the state and company paternalism, and to a lesser extent, CCSR modes. Below, we analyze all types of benefit sharing arrangements present in the Irkutsk region, with specific focus on the CCSR and paternalist modes, since other modes are not present in the region of study.

3. Materials and Methods

3.1. Research Context

The case study below deals with the experiences in four communities located in the north of the Irkutsk Region, Russia: Ust-Kut, Verkhne-markovo, Yerbogachen, and Tokma (Figure 1). The main operating companies in the study area, are the Irkutsk Oil Company (IOC), Verkhnechonskneftegas (Rosneft), and Dulisma. IOC was established in 2000, after the merger of several smaller oil companies. As of March 2017, the company employed approximately 5900 people. The IOC has become increasingly transnational over time. In 2008, IOC shareholders secured financing from the EBRD, which imposed specific requirements on benefit sharing with indigenous peoples. Some of the IOC's oil production flows through the "Eastern Siberia–Pacific Ocean (ESPO)" pipeline [53]. It is a fast-growing company: In 2008 it produced 297,000 tons of oil and condensate, and it increased its output to 7.8 million tons in 2016 [54].

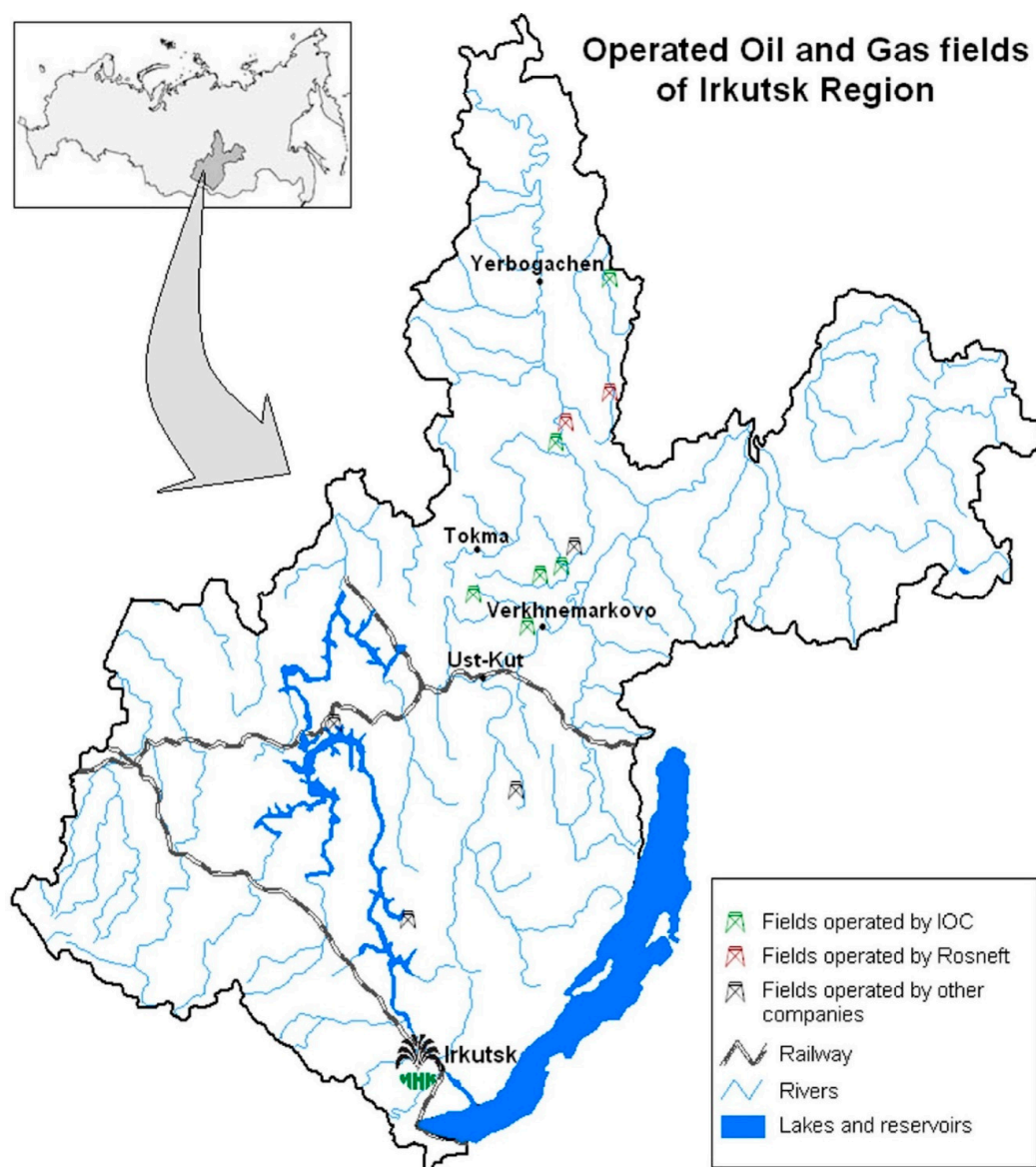


Figure 1. Study area, gas fields and indigenous settlements.

Other oil operators in the region are Verkhnechonskneftegas (VCNG) and Dulisma. Rosneft Oil Company owns most of VCNG's shares [55]. It operates the largest oil site in Katangskii district,

Verkhnechonskoie, where extraction reached 8.6 million tons in 2016 [56]. Dulisma is a Moscow-based company founded in 2000, which operates the Dulisminskoye oil field.

The City of Ust-Kut, with a population of 42,447, is a district center and transportation hub, which provides “northern provision” to both the northern municipalities and the Republic of Sakha (Yakutia). With the construction of the Baikal-Amur mainline (BAM), the population of Ust-Kut peaked to roughly 61,000 in 1989, with a consistently declining population rate ever since. The main sources of income for the majority of local residents are the public sector, transportation, forest industry, and services.

The village of Verkhemarkovo, with a population of roughly 1779, is located in the Ust-Kut Municipal District and is connected by road to Ust-Kut. In 1962, Cambrian oil was discovered there, and Lenskaya Geological Survey have done additional explorations of the deposit. Since then, until Perestroika in the late 1980s, villagers had relatively high living standards and were hoping to build a neighboring town and name it Neftelensk. Unfortunately, the town was never developed. During Perestroika, Verkhemarkovo became a transit point for oil workers travelling to drilling sites. Remaining jobs were mostly in schools, day care centers, the local administration, library, and hospital [57].

Yerbogachen and Tokma are located in the Katangskii Municipal District. The territory is home to the Evenki Indigenous people who practice reindeer herding, hunting, fishing, and gathering of wild crops. The village of Yerbogachen, with a population of roughly 1882 residents, serves as the district capital. The Evenki obschinas (i.e., traditional economy enterprises of Indigenous peoples), “Ilel” and “Avlakan” were created in the village for hunting purposes, and were engaged in negotiations with the extractive companies operating on their hunting grounds.

The village of Tokma, with a population of about 75 people, is a remote settlement where traditional subsistence activities form a significant source of income. Some jobs are available in the post office, retail and grocery shop, medical assistant’s office, airport, diesel power station, and local administration. Another important source of income are pensions and other social payments. The kindergarten and primary school were closed in 2017, due to a lack of children. In 2003, the village inhabitants formed an Evenki hunting obschina “Tokma,” with about 50 hunters as its members. It received the license for long-term land use in 2009, which gave the legal basis for negotiating with oil and lumber companies. Since then, about one third of the total area has been withdrawn from the use of the obschina, for the oil production.

3.2. Research Process and Data Collection

This project was aimed at understanding the consistently present benefit sharing arrangements emerging in the Irkutsk Region in Russia, and utilized several years’ worth of collected interviews and observations from a diverse set of affected communities, some of which were visited repeatedly. Field work was completed during 2011–2016, encompassing five major field seasons and 100 interviews: 2011 (Verhemarkovo, 17–26 November: 34 interviews; Tokma, 26 November–10 December: 35 interviews), 2012 (Irkutsk, 1 February–11 March: 2 interviews), 2013 (Yerbogachen, 1–10 September: 10 interviews), 2014 (10–22 February, Verhemarkovo: 4 interviews, Irkutsk: 5 interviews, and Ust’-Kut: 10 interviews, Tokma: 7 interviews), and 2015 (Verhemarkovo, 25–27 July: 7 interviews and Ust’-Kut: 5 interviews), and 2016 (Ust-Kut, 8–14 July: 6 interviews).

Verhemarkovo, 17–26 November 2011: 34 interviews; Tokma, 26 November–10 December, 2011: 35 interviews; Irkutsk, 1 February–11 March, 2012: 2 interviews; Yerbogachen, 1–30 September 2013: 10 interviews; Verhemarkovo, 10–22 February 2014: 4 interviews; Irkutsk, 10–22 February 2014: 5 interviews; Ust-Kut, 10–22 February 2014: 10 interviews; Tokma, 10–22 February 2014: 7 interviews; Verhemarkovo, 25–27 July 2015: 7 interviews; Ust-Kut: 5 interviews; and Ust-Kut, 8–14 July 2016: 6 interviews.

We employed semi-structured interviews and participant observation. Interviews were conducted with Indigenous hunters, local residents, district administrations, representatives of civic organizations,

and IOC employees and management (see Table 2). The interviewees were selected using the snowball technique, where we capitalized on our previous field work in the region and personal social networks of one of the authors, who was born and raised in a local community. In every study location, the key informants helped us with arranging additional interviews. Participant observation was used at public meetings, community gatherings, and company and municipal offices. Additional interviewees were selected at these events. The attempt was to engage a cross-section of local stakeholders, i.e., local residents, including the Indigenous people, company employees, and government officials. The number of interviews varied, depending on the answers of the interviewees, i.e., the encounters with more knowledgeable respondents led to fewer but longer interviews. Moreover, more interviews were conducted in the earlier years, and during the following years, when the authors were more familiar with the communities, it was more efficient to gather a smaller number of interviews to monitor the situation and answer new research questions.

Table 2. Field Study Sites and Interviewees.

Community	Number of Interviewees	Local/Indigenous Residents (LR)	Company Employees (CE)	Government Officials (GO)
Irkutsk	2	–	2	–
Tokma	37	36	–	1
Verknemarkovo	42	34	2	6
Yerbogachen	10	8	–	2
Ust-Kut	9	4	–	5

The structure of the interviews changed over the years from broader to more specific questions during later visits. Although the nature of information gathered in different communities slightly varied, all interviews were addressing the relationships between extractive companies and local communities. For example, the interviews gathered in 2013 in Yerbogachen were focused on the social, economic, and political problems of local indigenous communities with limited access to transportation systems and identifying the mechanisms to promote their sustainable development. In 2014, the interviewees were asked about environmental and socio-economic impacts of new resource development and re-industrialization on single-industry communities. In 2016, the interviews were focused on the experts' estimations of the effects of transportation infrastructure development on socio-economic development of the remote communities, and personal experiences of the use of transportation infrastructure for work and individual needs of local residents, which include the work for oil and transportation companies. Interviews were transcribed and stored with assigned ID numbers on personal password-protected laptops of each interviewer. The files with the transcribed interviews and removed personal data were shared between the team of authors.

To analyze the interviews, we used the narrative analysis methodology, which allows placing experiences of actors related to oil development within the larger scale of its consequences, and in a holistic way [58]. We analyzed stories related to resource extraction, its impact, and benefit sharing arrangements between oil companies and local communities. The analysis involved stories, produced by three major groups of stakeholders (local/Indigenous people, government officials, and IOC employees). These allowed comparing and contrasting the descriptions of the same events, coming from the social worlds of different groups of stakeholders. In addition to narrative analysis, we conducted deductive content analysis [59]. The theoretical framework and findings from previous research in other regions of Russia [36,37,43,46,47] were used as guidance for initial codes used to analyze each interview, to see if there were potential indications of particular benefit sharing modes and mechanisms.

Finally, we analyzed the IOC's socio-economic agreements with the state authorities and with the Indigenous hunting enterprises (obschinas), company policies, company brochures, company reports, and other relevant documentation for 2011–2017. Other sources included municipal documents and reports, public hearings protocols, and records of public complaints. The main focus of the analysis of

the listed documents was on the content and procedures of benefit-sharing, rhetoric, and strategies of legitimization of current agreements, areas of conflict and negotiation, distribution of benefits between stakeholders beyond the extractive companies, and the main indicators of successful collaboration between representatives of local communities and companies from different perspectives.

4. Results: Understanding the Mechanisms of Benefit Sharing

The primary goal of our analysis was to examine benefit sharing arrangements and practices in the Russian Arctic, using the Irkutsk oil region as an example. Below, we describe mechanisms of benefit sharing based on the framework introduced earlier in this paper, provide critical analysis of prevalent arrangements and practices; and discuss institutional and social underpinnings of these benefit sharing frameworks (see Table 3).

Mandated benefits.

Mandated benefits are the most invariant and regulated mechanism of benefit sharing. They are associated with specific acts of legislation, rules, regulations, and contractual agreements. In the Irkutsk context, this mechanism manifests itself in the form of taxes paid by the oil companies.

Taxes. IOC is the major taxpayer in the Irkutsk Region, where its budget is drawn up from the corporate and employee income taxes, emissions tax, and from lease payments for land and property. The company's tax liabilities constituted about 8.5% of the regional budget in 2016 [60]. In 2017, it contributed 13.4 billion rubles in taxes, which constituted 10% of the overall budget [61]. Other oil companies, such as Dulisma, are registered in Moscow and the regional budget receives only their land and property taxes [62]. Therefore, the development of Irkutsk Region depends directly on the prosperity of IOC. The industrial output of this growing company is steadily increasing [63]. The regional government has much interest in such taxpayers, and has given exemptions on regional taxes to oil companies since 2013 [64]. As a result, the extractive companies have increased their investments in oil and gas projects, and liabilities to the regional budget as well.

Only a fraction of collected taxes reaches local communities. For example, in the Katangskii district (Yerbogachen), 14 geological expeditions operated in 2013 and paid 60% of their taxes to the regional budget, 30% to the municipality, and 10% to the settlement. Recently, Yerbogachen's budget became more self-sufficient in comparison with other heavily subsidized northern municipalities. The share of locally collected taxes in the budget grew from 10% in 2006 to 85% in 2016; this growth was largely a result of increased individual income taxes [65]. However, the socio-economic situation did not improve as much as the tax growth; the more the municipality received their own taxes, the less subsidies it got from regional and federal sources.

Negotiated benefits.

Negotiated benefits represent arrangements between companies and communities that often originate from an intervention of an external intermediary, such as the state or a foreign investor. Included here are corporate responsibilities, explicitly or implicitly imposed by federal or regional authorities, post-Soviet state paternalism channeled through companies, and corporate social responsibility (CSR) requirements imposed by foreign investors or partners. In Russia, these agreements are often designed to re-channelize some of the state functions in the extractive activity areas to an industry operator. Agreements concluded between companies and regional governments, district authorities, and village administrations have become common practice in post-Soviet Russia.

Table 3. Benefit Sharing Modes and Mechanisms in the Oil Sector of Irkutsk Oblast.

Ode	Structured	Negotiated	Semi-Formal	Trickle-Down
Paternalistic	Tax revenues distribution: oil production taxes are collected by the federal government and partly transferred back to the region. If a company is registered locally, other taxes it pays (income, property, etc.) are retained in the region; the regional government transfers some revenues to municipalities.	State-imposed agreements with regional and district authorities annually concluded socio-economic cooperation agreements with the regional government and municipal governments in oil-producing districts.	“Plea-and-take” sponsorship system: Semi-formal or informal arrangements, in which the companies respond to individual requests from community actors, local authorities, or private citizens. Support to social and civic initiatives (clubs, music bands, veterans’ organizations, schools), responses for emergency needs (such as equipment breakdowns or disaster response).	New jobs (company, public, retail, or transportation). Income growth. Development of infrastructure (roads, pipelines, educational and public health facilities, equipment for schools and medical establishments).
Company-centered social responsibility	—	Direct socio-economic agreements with Indigenous enterprises (obschinas), concluded annually to provide payments and in-kind support for negotiated community needs.	Sponsorship and charitable contributions: Support of sport activities, festivals, charitable funds, NGOs, etc. (sometimes the preference is given to the location of the company headquarters).	New jobs (company, public, retail, or transportation). Income growth. Development of infrastructure (roads, pipelines, educational and public health facilities, equipment for schools and medical establishments).
Partnership	—	—	—	—
Beneficiary	—	—	—	—
Shareholder	—	—	—	—

In the case of IOC, the social assistance and sponsorship policy were adopted according to the EBRD requirements. IOC documents formulate general principles and specify the preferred beneficiaries, which include: Areas where oil production or industrial activities are carried on, indigenous people, as well as non-governmental organizations (NGOs), such as the Russian Children's Fund [61,62]. The company completes agreements on socio-economic cooperation, and allocates its funds through the regional budget. Since 2012, the Bank does not issue new loans in connection with the sanctions imposed by the European Union, but the obligations under the existing credits are enforced in full. All the principles established in 2008 by the IOC are still being implemented. [66].

Socio-economic cooperation agreements with authorities. IOC and the Government of the Irkutsk Oblast' annually conclude an agreement on social and economic cooperation. The distribution of funds is coordinated with the Oblast' Government, and occurs within the framework of inter-budgetary relations: Every settlement's budget is estimated and then the income per capita is calculated for equalizing all the incomes. Furthermore, the purposes for which the financial resources should be spent are defined in detail; to accommodate their requests in full, the municipalities must draw up applications with lists of their needs and corresponding amounts of money needed.

In 2017, the funds allocated under such agreements were estimated at 100.4 million rubles. Part of the funds remained in the regional budget to sponsor public activities, particularly organization of various sports competitions and cultural events, such as the Winter Sports Games in Irkutsk [63]. The remainder was distributed among four districts: Ust-Kut, Katangskii, Nizhneilimskii, and Kirenskii. Ust-Kut Municipal District received 15.8 million rubles, including 8.2 million for Verkhne-markovo.

Ust-Kut district authorities appreciated such cooperation and provided all possible support to the oil and gas industry. "Certainly, IOC is developing and we are as well, since we have full cooperation. . . . Besides taxes and employment for many years they sign annual social partnership contracts with us . . . We fully assist them in the selection of land, some approvals and other things as appropriate under the law" [67]. However, the system of funds allocation does not entirely satisfy any of the parties. Particularly, local administrations wish to be the main recipients of benefits instead of the regional government. "There is Zimniada [Sports] Games in Irkutsk, or they hold the Baikal Economic Forum. These events are sponsored by oil companies in the vast majority of cases. And what [do] the local men... get then?... They could have spent the money on the [local] road reconstruction or on advancing the social infrastructure..." [67].

At the same time, local authorities admit that the commercial enterprises should not fill the holes in the regional budget, but they also realize that the budget replenishment at the expense of IOC is the only way to solve the problems in municipal services and get assistance for cultural events and aid for particular people. "Well, just imagine the IOC leaving. We won't be able to clear the roadway because we have no special machinery. We won't be able to develop schools because there is no money and no way to get it. For what money will our amateur performers and the Council of Veterans live?" [68].

IOC perceives the socio-economic cooperation agreements as a price to pay for a "social license" to operate. Company officials also believe that the social cooperation should be a mutually beneficial treaty, between the company and government [53]. The government, however, does not operate under the same assumption: "Socio-economic cooperation means additional obligation, which is . . . an arm twisting for the business. But if the [administration] only were not throwing sand in the wheels instead, it would be good . . ." [63].

VCNG represents a somewhat contrasting example, with respect to social and economic cooperation agreements. Rosneft, a major Moscow-based company, signed an agreement on social and economic cooperation with Irkutsk Region in 2015. At the municipal level, VCNG signed 'physical capital investment projects' amounting in 62 billion rubles within agreements on social and economic cooperation with the Katangskii district, for 2014–2034. The first installment of 9.6 million rubles was received in 2014, however, in 2015 and 2016 VCNG did not fulfil its obligations under the agreement [69].

Direct agreements with the Indigenous communities (obschinas). A separate type of negotiated benefits are the direct agreements between companies and Indigenous communities or obschinas. They are typically negotiated and signed by the head of the obschina and the company representatives. Funds are distributed according to the decisions taken at general meetings of the community, and during public consultations with companies. *“We make requests where we explain what we need and for what purposes, such as for acquiring hunting licenses... we need about 200–300 thousand rubles for that . . . They transfer this money and we make purchase and send them financial reports by the end of the year. They don’t want partnership, but when we ask them, they give . . . If you don’t ask, they will never offer anything, and why would they?”* [70].

The nature of the benefits varies and depends on the negotiation skills of the local leadership. The negotiation process can be rather obscure, and the resultant benefits may lack distributional equity. Typical items included in such agreements in Tokma, for example, encompass supply of gas condensate to the community, landline phone connection, payment of the hunting licenses, and support for schools. Overall payment in 2017 was 300,000 rubles, the same amount was allocated to other obschinas [61]. In addition, gas condensate worth 400,000 rubles was delivered to the village [71]. However, the opacity of these negotiations has created a general distrust and misunderstanding on the part of the hunters and other villagers.

Many Tokma residents considered such assistance to be insufficient and incommensurable to the real capability of the company, and to the extent of the damages. *“In respect of the company size, the humanitarian aid supplied by IOC should have to be more”* [72]. However, others acknowledged that a habit of getting ‘free’ help leads to the loss of skills in traditional lifestyle. *“Evenki have got a consumer attitude to life: give me, more and more. My mother was capable of any Evenki craft, she sewed mukluks, embroidered with beads ...”* [73].

In Yerbogachen, with a more ethnically diverse population, the agreements with obschinas are directed to their members only. The amount of assistance received from extractive companies, including IOC, goes to cover hunting licenses, pay taxes, and purchase of equipment related to the traditional mode of life. Moreover, the Evenki reindeer herding family that is registered in Yerbogachen, but keeps traditional nomadic activities in the remote taiga which is far away from any geological explorations, receives more direct support from oil companies. In Yerbogachen, one of the obschinas had sued an exploration company after the latter offered minuscule compensation for operations on the hunting grounds of the obschina members.

Semi-formal benefits

Ad hoc sponsorship and the “plea-and-take” system: The “plea-and-take” system refers to a set of semi-formal or informal arrangements, or sponsorships, in which an oil company responds to individual requests from community organizations, local authorities, or private citizens. All benefits are negotiated, but the company reserves the right to make the final decision on whether to address the requests. “Plea-and-take” is a convenient and inexpensive way to strengthen a company’s social license to operate. It can take the form of payments or in-kind benefits. The corporate leadership often perceives this as a good will of the company, which a local community is not technically entitled. This is a sort of “social expenditure.”

In the Irkutsk Region, the amount of funding provided by IOC via the “plea-and-take” arrangements, significantly exceeded its formal obligations in accordance with the socio-economic agreements. For instance, in 2015, the planned funding according to the agreement was 43 million, but by July of 2015 81 million rubles was already spent to support communities. The company experiences difficulty with planning the budget for these activities: Applications for assistance are due at the end of the year, and it often gives very short notice to make budgetary arrangements. In addition, the requests are constantly changing and increasing. Finally, there are frequent emergency situations (e.g., a loss of a school boiler in the middle of winter), which require an immediate response [53]. An IOC representative described in as follows: *“The next year comes, they [local administration] say: well,*

it's okay what you have planned, and we still need this and that. But we have our sewer system collapsed out there in the hospital. We still have a million in demand for the sewer. And we still have a need for roof repair, and so on. ... First we plan the particular sum. And after all, we are getting a sum twice, three times as much by the end of the next year" [63].

Nevertheless, the company always tries to satisfy the requests of the local administration [63]. The fact that the company goes beyond the agreement of socio-economic cooperation is acknowledged by local administration officials: *"We have signed an agreement for 7.251 million. But usually they add money in course of time" [74]. "We have applied to them already and they took our athletes to regional competitions—this is in addition to the social partnership [i.e., the formal agreement]." "Wherever we have applied to, or whatever we have asked for, they help us" [74].*

The support may come as cash or in the form of supplies and services, such as transportation, equipment, in-kind labor, etc., or perhaps as assistance to local community organizations, such as theaters, clubs, sport teams, and ensembles. The examples of the IOC's support for local communities under the semi-formal mechanism, include helping Verkhne-markovo to clean up the illegal dump, delivering fuel, clearing snow on the 40 km road connecting Tokma to the highway, and the annual funding of the Ust-Kut district veterans choir. Approximately 30 retired ladies and gentlemen receive annual support for costumes, travel, and operations from IOC. In this instance, the "plea-and-take" systems works as follows: the ensemble leader (a local veterans' club activist) sends a formal letter of request to the IOC CEO. Since there is no application process or standardized form, the handwritten request only specifies the needs and costs to be covered. The letter is accepted by the company officials and the resolution is made by the CEO to give the funding, which then allows the funds to be released.

Socio-economic agreements and the "plea-and-take" flexible benefit sharing arrangements create a positive view of the relationship with the company, by the municipal governments and villagers. To highlight the importance of these semi-formal arrangements, one Tokma villager put it: *"I think, companies should stay in the area, otherwise we all will really perish here, as no money could come to this place" [75].* The locals expect that the sponsorship will increase with the expansion of extractive activities. Nonetheless, it is common for village locals to perceive these benefits as a form of due but inadequate compensation: *"This is peanuts of what they [company] have from us. ... they take more than they give us" [76].*

However, from the IOC's point of view, their social responsibility to local communities is not a duty, but a voluntarily assumed obligation: *"You know, we have no obligation, it's our good will. And as for a good will, it cannot be excessive [...] I understand [their problems], but sometimes they need to restraint their appetite" [63].* Moreover, from the IOC's perspective, the local residents' claims seem unreasonably high.

Trickle down benefits

Local Employment: The IOC contribution to regional development includes job creation, as the company recruits workers from the surrounding villages [77]. The company has developed a plan for training local residents to become specialists in the basic and auxiliary units. For instance, the agreement between IOC and the village of Verkhne-markovo was signed to ensure local employment. However, there is no formal quota to hire local personnel. The company now employs more than 80 residents of Verkhne-markovo, and when including affiliated companies, the number of employed local personnel is roughly 200 [63].

Government officials have a positive view of the companies' employment efforts: *"Many of our residents work in the oil industry and this also affects the employment ... income, ability to pay the bills, etc." [74]. "We're having here the local, adequate, coherent people who are professionals, all employed by the oil companies [78].* However, the view of the village's ordinary inhabitants often differs: *"Local people are not given the work. [The company] says, they need narrowly focused specialists. Only drivers are required since they know the roads and local conditions" [79].*

The companies are reluctant to accept employees with no recommendations, because there were cases when local people broke workplace discipline. Another problem is the qualifications gap, lack of professional credentials and education among villagers. Since most of the locals do not have the necessary qualifications, the IOC has been focusing on the training of local youth. *“We also teach. The company gives direction for people, and then they learn and work in the company In summer, many students come to work. Two, three months, we are already looking at how they work. A person who wants to work? We’ll take him!”* [80].

In Katangskii district only, about 100 local residents are officially employed in the extractive industry [55,81]. As in other areas, while local people frequently have job opportunities [82], they lack skills to secure high-paying positions. The requirements for the job could be tough: *“It’s not easy to get a job there without work experience. Even if you want to cut trees you need a license. And to get the license you need to study in Irkutsk”* [83]. Large companies, such as IOC, have better jobs not only in terms of salary, but also other benefits (work safety and working conditions) [83].

Infrastructure development: The construction of infrastructure is another potential trickle-down benefit of extractive activity that contributes to the region’s development. Overall, in 2017, IOC spent 1 million rubles on building roads and 21 million on repairing or improving other types of infrastructure in the northern districts of Irkutsk region. It invested in building renovations (schools, kindergarten, and museums), equipment for educational and health facilities, heaters and boilers, airport operations, vehicles for community needs, etc. [84].

A good example of a trickle-down infrastructure benefit is the municipal solid waste landfill in Verkhnemarkovo, built and operated by IOC. Whilst the villagers believe the landfill site was constructed to meet the company’s own needs, the IOC representative indicated that the company *“had no extreme need for it: its construction aimed at social development”* [84]. Using its own funds, the company safeguards the landfill and ensures compliance with the rules of its operation.

Consumer market and local businesses: Influx of revenues and increased wages stimulate consumer spending. Both Ust-Kut and Katangskii districts experienced growth in retail trade and restaurant food sales in the last five years [85], an indication of a potential trickle-down effect from extractive industry operations (i.e., money spent by fly-in/fly-out workers, increased local incomes, etc.). In Katangskii district, the number of people employed in real estate operations grew from 42 in 2009 to 294 in 2016 [85]. In Yerbogachen, the presence of geological expeditions and oil companies have changed the local economy; more shops are open, the number of off-road vehicles and motor boats has also increased significantly: *“About 5–6 years ago foreign-made motors for boats were unusual on our pier—only 2–3 were there. And today the domestically produced motors are unusual. Folks prefer to buy more expensive but more reliable stuff.”* [82]. Officially, there were 77 entrepreneurs and 66 small and medium enterprises in the Katangskii district, and the share of their input in the local budget revenues was 1.5% [69,81,86].

Ust-Kut benefits from its location as a transportation hub; the long-distance commute workers arrive to the local train and bus stations and then transfer to the oil company vehicles. Commute workers contribute to the expansion of the taxi services and apartment rentals. The old buildings formerly used as a hospital and a recreational facility, were converted to hotels in 2017. The number of retail stores and dining facilities grew from 302 to 387 (28%), and the number of dining facilities grew from 20 to 31 between 2006 and 2016 [73].

5. Discussion and Conclusions

The Irkutsk Oil Region demonstrates a common combination of modes and mechanisms of benefit sharing in Russia, which are centered on paternalism and the CCSR, and which are implemented through mandated, negotiated, and semi-formal structures embedded in the post-Soviet legacies (Table 3). This path-dependent nature of benefit sharing is underpinned by the Soviet-era expectations that the state must be the parent-like sole provider, and that benefits are delivered directly by the different levels of government, and/or by a state-owned company (that was inseparable from

the state). Transformed and supplemented by the private sector corporate social responsibility imperative (adopted from the West), this recombined logic generated an intricate mix of benefit sharing arrangements observed today. This mix is both neo-paternalistic [46] and neo-colonial in nature, as it propagates the dependency of local communities on negotiations with the state and extractive companies, in which the locals are never recognized (or behave) as an equal party. The most vivid case of such paternalistic neo-colonialism, is the “plea-and-take” system described in this paper.

Under the paternalistic mode, the mandated benefits are rather straightforward: Oil production taxes are collected by the federal government and are partially transferred back to the Irkutsk Region. Since the IOC is registered in Irkutsk, the other taxes it pays (income, property, etc.) are retained in the region. The Irkutsk regional government transfers some revenues to municipalities at its own discretion. The locals are not involved in these processes, and therefore receive small amounts of tax revenue returned back to the communities. Essentially, this system is not different from tax-based revenue streams in other resource regions [87].

Paternalism is also the predominant mode associated with state-imposed negotiated socio-economic agreements (Table 3). These agreements are voluntary–obligatory arrangements, which can be compared to a “tribute” paid by companies to the regional authorities. Again, this practice is embedded in the post-Soviet legacies, when the state transferred some of its responsibilities to extractive industries. IOC is a private operator, but in addition to the social license to operate, it needs to obtain the informal “government license to operate” and demonstrate being a “good neighbor” to local communities. Concurrently, IOC is also vested into the state system by the virtue of its CEO serving as a member of regional parliament. This interlocking between the oil company and regional state emulates the Soviet institutional settings, although it allows external actors (such as EBRD) to exert influence on the benefit sharing process, making this entangled system even more complex. In such circumstances, most benefits are operationalized through negotiations designed to satisfy both the state and the company. However, the negotiated nature of the process creates a considerable uncertainty with respect to the resultant benefits, especially because these negotiations lack transparency and often follow personal agendas of the top negotiators. Needless to say, those who are not in power do not receive much, as a result of the procedural and distributional equity of this benefit sharing regime.

The “plea-and-take” system of benefit sharing is another manifestation of the post-Soviet neo-colonial realities. Built upon the principles of reciprocal favoritism in the Soviet social system [88], the “plea-and-take” mechanism requires a local community, organization, or individual to submit a plea to the company; the plea will then be fulfilled or denied at the company’s leisure. Whilst benefit seekers initiate the sponsorship request, the agency and power in this system are fully retained by the company, reinforcing dependency and powerlessness of the petitioners.

Along with the state-imposed negotiated socio-economic agreements, the “plea-and-take” serves as a way to alleviate the institutional weaknesses at the national, regional, and local levels. They both fill the legislative voids and legitimize custom practices, whilst also reinforcing path-dependency and weakening the emerging institutions of capitalism and local self-governance. In addition, these neo-colonial relationships erode social capital by instigating conflict and promoting dependency. For example, closed door negotiations delegitimize local leaders and diminish social capital, whilst the “plea-and-take” sponsorship generates jealousy and suspicion among community members.

However, the examined case studies also revealed new types of relationships and forms of benefit sharing, attributable to the market economy. CCSR represents an influx of the global benefit sharing frameworks. In the case of IOC, the EBRD standards were implemented after the company received loans from the bank. Direct socio-economic agreements with Indigenous *obschinas* result from the global practices of working with Indigenous communities, required by the EBRD and adopted by IOC. In initiating these globally-driven arrangements, the company attempted to move beyond the state-imposed paternalist benefit sharing to CCSR. The overlap of these two modes established an emerging new benefit sharing regime, in which the state, global standards, and local expectations

intertwine to constitute a complex system of arrangements and relationships, in which a company needs to satisfy all three. This provides an important illustration of such regimes, for a private company with strong state ownership legacies still missing in the CSR literature [89].

Trickle-down benefit sharing mechanisms work similarly under different modes. The typical channels include new jobs in the oil company, ancillary, and supporting industries, public sector (doctors, teachers, administrators, etc.), retail, transportation, and other sectors with forward or backward linkages to the oil industry. Another source of economic impact is income growth, mostly through employment. Companies also participate in the development of infrastructure, including roads, pipelines, educational facilities, public health facilities, and schools. These developments create additional benefits to community members because they improve public services, which increase the local quality of life. However, in our case study, there was no job quota system utilized by the oil company, and hiring practices were not focused on providing job opportunities locally. Therefore, the community did not benefit from these developments as being a potential employment opportunity. Socio-economic cooperation agreements do not include any of these provisions. However, there are company-based employment options at some sites and in Irkutsk. Additionally, the IOC has training and internship programs to encourage young peoples' recruitment and retention in the company. As indicated by the company officials and local residents, there may be real or perceived skill gaps that prevent many villagers from securing good jobs in the company. Fly-in/fly-out employment is prevalent, resulting in locals being employed with less pay and job stability, as drivers or other supporting personnel for the company. Some locals are recruited as fly-in/fly-out workers on remote sites away from their settlement. This ultimately takes away the opportunity for local employment because of the perception that locals are incapable of fulfilling the job requirements, and outsiders are more sufficient.

The benefit sharing arrangements found in the oil sector in Russia's Irkutsk Region illustrate an intricate system, where Soviet-era legacies mixed with capitalist corporate relationships are layered upon relatively weak local institutions. The result is a distinctly paternalistic, neo-colonial, benefit sharing regime marked by a strong path dependency, and lingering remnants of Soviet practices. The domestic, regional nature of the main oil producer (IOC) and its direct linkage to the Soviet predecessor, make this case especially interesting. IOC is both a successor of the past and a recipient of the globally-governed EBRD loans, and thus has to participate in both state-imposed and EBRD approved benefit sharing arrangements. However, the resultant practice does not provide a high level of process or distributional equity, and may not lead to sustainability in the long run.

With respect to sustainable development, the benefit sharing regime we described is strictly focused on short-term benefits, not long-term, sustainable development. All actors seem to behave in accordance with their short-term interests, and a vivid example is the annual nature of negotiated benefits and an even more urgent timeframe for the "plea-and-take" requests. In many ways, this benefit sharing system is guided by personal relationships among current company leadership, authorities, and local leaders, which creates uncertainty and promotes short-term planning. No long-term strategies to achieve sustainable development outcomes currently exist. Entrenched post-Soviet path-dependency, weakness of local institutions, dwindling population, and the lack of community capacities, determine unsustainable outcomes in the study region.

Benefit sharing practices in Irkutsk Region somewhat differ from the newly developed Russian oil-producing regions, such as Nenets Autonomous District and Sakhalin Island [43,46,47,90]. In these regions, the emergence of more entrepreneurial and market-oriented relationships have led to growing community and business capacities through investment in Indigenous enterprises, infrastructure, and entrepreneurship, secured by long-term benefits; whilst also strengthening community capital and quality of life. While some important issues remain unresolved in these regions (such as the equity of benefit distribution), these benefits sharing arrangements are more compatible with a sustainable vector of local development [90]. In contrast, in our case study, communities seemed to remain

locked into the regime that merely supports their existence, but fails to provide foundations for a sustainable future.

Resource communities are not equally benefiting from oil and gas extraction, and no benefit sharing mode or mechanism discussed in this paper ensures sustainable development of local communities. This may stem from the fundamental mismatch (or incompatibility) in post-Soviet legacies, corporate social responsibility principles, and local institutional frameworks. There is an urgent need to improve our knowledge base about benefit sharing in the Arctic and Sub-Arctic, by conducting a synthesis study aimed at finding best practices, identifying lessons learned, and initiating a multi-stakeholder, all-inclusive process of developing guidelines for companies on benefit sharing in the Arctic and Sub-Arctic.

6. Limitations

Although this paper relied on multiple years of field work in the region, there are important gaps in our knowledge we could not fill. The study was limited by the interview coverage taking place in only a few locations, whilst oil companies operate in a multiplicity of places. In the selected villages, we gathered information from a diverse, but small, group of informants. The lack of comprehensive statistical data was also an issue. The paper also did not examine the cumulative effects of benefit sharing frameworks, as other extractive companies (such as forestry operators) also contributed benefits to the communities that we studied. In addition, benefit sharing was not specifically analyzed or investigated with respect to the roles of civil societies, personalities, and NGOs. Future research will close some of these gaps.

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