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**Contents**

	<i>Paragraphs</i>	<i>Page</i>
I. Introduction .....	1 - 4	
II. Controlling the need for metals and minerals extraction .....	2 - 14	
III. Strengthening the contribution of mining to national economies...	15 - 28	
IV. Addressing the environmental and social impacts of mining .....	29 - 50	
V. Improving governance in the mining sector .....	51 - 66	
VI Building and reinforcing national capacities .....	67 - 72-	

**I.**

7. Regarding the former, the link between industrial metals and minerals extraction and the demand for industrial metals and minerals as inputs to the production process is affected by: (a) the extent of recycling that takes place; (b) material efficiency, i.e., the quantity of metals

provisions and mandatory mine closure and monitoring plans help ensure that the cost of operation m

### III. Strengthening the contribution of mining to national economies

15. As recorded in the Chair's summary of CSD-18 discussions, there is a need to root the mining sector in the long-term development imperatives of national economies and to create linkages with these economies to reinforce the sector's contribution to sustainable development. Maximizing the contribution of mineral wealth to the national economy involves a number of stages and involves no uniform recipe; instead, choices adapted to countries' specific circumstances have to be made regarding each stage of the process.

#### A. Large-scale mining

16. In many countries, substantial mineral reserves remain underexplored or underexploited. Reasons for this include lack of data and information, lack of investment and lack of infrastructure needed for the development of major projects. Developing adequate knowledge bases for different types of mineral resources that countries may have through surveying and mapping is a necessary first step.

17. At the stage of allocation of exploration and exploitation rights, the country's interest is to get the best possible price for the mineral wealth that will be extracted. As demonstrated in several countries, it is possible to clearly separate exploration rights from exploitation rights, with the objective of ensuring competition for exploitation rights among several companies. The asymmetry of information that often exists between authorities in charge of allocating mining rights and companies -- with the latter being better informed about the real amount and value of mineral deposits -- may be overcome by using open bidding, since companies compete for deposits based on similar technical capacities. Open bidding has been chosen as the process for re-allocating expired concession rights in several African countries recently.

18. The share of the extracted wealth accruing to the State depends on factors such as the legal and regulatory framework applying to mining (e.g. mining codes); the flexibility mechanisms built into contracts to deal with fluctuations in mineral prices; taxation and royalty regimes; provisions for royalty calculation and collection; and local economic provisions such as shared equity or targets for local employment within and around the mining project. Countries have applied a range of tax and royalty schemes for the mining industry. In practice, the actual collection of revenues is affected by a number of factors.<sup>3</sup>

3. Botswana) nge oWlthionsonlexibility

19. Beyond employment and other direct economic impacts of mining operations, creating linkages between mining and the rest of the economies is critical for development. Without an integrated approach, there are real risks that mining operations operate as enclaves, with few spillovers to the rest of the economy. An approach used in Mozambique, Liberia and other countries is that of growth corridors or development corridors, where planned mining development are integrated within broader spatial planning that aims to develop locally suited economic activities (such as agriculture, forestry, small-scale mining) by taking full advantage of the infrastructure created specifically for the needs of mining projects. For example, roads, railway lines, electricity generation facilities, and port facilities can be built with additional capacity to allow other activities to use them or communities to benefit from them. Lessons from experience show that the best way to configure such links is before mining contracts are signed. Provisions relating to over-dimensioning of infrastructure can be added in concession bids, with companies competing on this dimension.

20. Managing the revenues from mining for maximal development impact is t







#### **IV. Addressing the environmental and social impacts of mining**

29. Environmental and social impacts associated with mining vary widely, depending on the type, scale and location of the activity. Since the World Summit on Sustainable Development, a number of good practices have been developed and shared, including on good governance and sustainable mining principles; resource efficiency in extraction; mine safety and health; management of tailings and waste rocks; and rehabilitation of abandoned and orphaned mines.

30. Due to the vulnerabilities of small island developing States stemming in part from their limited carrying capacity and high dependency on marine and coastal resources, the carryover effects of mining to other sectors are particularly significant for this group of countries. Integrated approaches are needed that address mining together with fisheries, biodiversity, energy, and shipping.

31. The existence and enforcement of appropriate mining and environmental laws and legislation is critical to addressing the environmental impacts of mining. Regulations should be adapted to the category of the mining operation (large-scale and small-scale mining). There is broad agreement that this should include the preparation of comprehensive environmental and social impact assessments (EIAs and SIAs), with meaningful local stakeholder and community participation.

32. As mining operations continue to expand outside traditional mining countries, a key challenge is ensuring that industry best practices are disseminated and adopted as widely as possible. In parallel to the adoption of appropriate environmental and social laws and regulations, the implementation of voluntary standards and codes of conduct can potentially also raise the environmental and social performance of mining companies wherever they operate. Reporting, for instance through the adoption by firms of the Global Reporting Initiative's Mining and Metals Sector Supplement, can also contribute to an improvement.

##### **A. Environmental impacts**

33. Mining operations may have a range of environmental impacts, including land degradation, water pollution, air pollution and destruction of natural habitat. While some impacts are unavoidable once mining operations begin, damaging impacts can be minimized through the use of environmental impacts assessment, use of appropriate mining technologies, adherence to best practices in ongoing operations, and careful post-closure management and monitoring.

34. The prevention and management of pollution from mines is usually covered in legislation. For example, the European Union's Mining Waste Directive covers the management of waste from the mining industry.<sup>7</sup> The Directive provides that operators must

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<sup>7</sup> Directive 2006/21/EC.



clean-up operations. Many jurisdictions have developed standards and guidelines for the operation of tailings dams and facilities, increasingly focusing on a risk management approach. The International Commission on Large Dams (ICOLD) has also developed guidelines for tailings dams.

39. Mine closure and rehabilitation activities need to be planned from the inception and undertaken throughout a mine's operation



47. A large number of children work in ASM. The 2005 ILO call for action against child labour in small-scale mining advocated for immediate steps to withdraw children from mines and their immediate surroundings. Experience a pilot project in Peru under the ILO's International Programme on the Elimination of Child Labour (IPEC), demonstrated that a number of steps can be applied to remove children from ASM. These include sensitization at the national and regional level among decision-makers, access to improved technology that eliminates the need for child labour, and improvements in basic services.

48. Improving the health and safety of mine workers remains a challenge across the world. To date, 23 countries have ratified the 1995 ILO Convention No. C176 on Safety and Health in Mines. Given that this Convention provides a framework to achieve continuous and sustainable occupational safety and health improvements, its ratification could improve laws and regulations in those countries where mine safety is weak and where no coherent occupational safety and health policy exists for the sector. It is also important that countries take steps to fairly compensate the long-term health impacts on workers and nearby communities. Improving working conditions in the artisanal and small-scale mining sector will remain a challenge as it operates largely informally with minimum work safety and health standards.

49. The influx of persons associated with mining operations may also give rise to, or exacerbate, indirect negative social impacts, such as alcoholism, prostitution, and sexually transmitted diseases, including HIV/AIDS. Social and health policy interventions are required by mining companies and local authorities.

50. The social side has been dubbed the "weakest pillar" of sustainability assessment by some experts. SIAs are often mandated by law and regulation for all proposed mining projects. While the goal of SIAs is to identify and address potential social issues proactively, a number of weaknesses of this and related instruments have been identified. They include insufficient scope; lack of comprehensive approach addressing all relevant issues; lack of integration of social, environmental, and economic issues; an overly technocratic approach; and the static nature of these exercises. The demand for greater integration of social and environmental impact assessments is supported by the World Bank Extractive Industries Review, among others.

## **V. Improving governance in the mining sector**

51. Mining activities generate a range of impacts that have been examined in the Secretary-General's report to the 18<sup>th</sup> session of the Commission. Depending on the case, preventing, managing, or mitigating those impacts requires adequate governance both at the national and international levels, including the rule of law as well as ethical, accountable, and transparent behavior by governments and companies, within the resp.3214 0D34274 0nrnance in2itted dl,Tc 1.9629

52. International governance issues arise because of the globalized nature of markets and value chains involving minerals and metals. Adequate governance should aim at greater transparency and accountability at all points of such supply chains, with the aim to support interactions among all the actors in ways that are conducive to sustainable development. A comprehensive approach to governance in the sector has to consider in particular the following aspects, which can be adequately addressed by a combination of national and international efforts: (i) trade in conflict minerals; (ii) transparency of agreements between governments and the private sector; (iii) respect by the mining industry of basic human rights, including the rights of affected communities; (iv) environmental and social performance of international companies.

**A. Continuing to progress on international governance**

53. Mining activities in countries suffering from conflict or where a serious risk of conflict exists have often been detrimental to sustainable development. So-called “conflict minerals” have been documented to stoke conflicts, increase crime and corruption, and hinder economic and social development. Under the appropriate fora, all countries should cooperate among themselves and with mining companies to end trade in conflict minerals



potential to change the dynamics in which mining companies operate. The recently passed Cardin-Lugar amendment in the USA, which imposes reporting requirements at the project level on payment

58. Governments can directly impact the performance of mining companies by:
- (i) Adopting and enforcing environmental and social regulations for mining;
  - (ii) Ensuring that companies involved in human rights abuses or failing to their environmental and social obligations are held accountable to the legal system;
  - (iii) Requiring that multinational companies operating in the country apply best-practice technologies

### C. Improving national governance

61. In parallel to improvements in transparency at the international level, transparency and accountability of governments to their population regarding the exploitation of natural resources, the revenues they generate, and the redistribution of such revenues is also a prerequisite for sustainable development.

62. Features of good practices with respect to mining licenses include the follow: efficient systems for the management of mining related information; clear and transparent process; objective criteria for the grant of exploration and mining licences; and limited administrative discretion. As an example of transparency, the Namibian Department of Minerals and Energy operates a Computerised Title Management System (CTMS), which covers all transactions throughout the lifetime of a mineral title and permits access by members of the public.

63. Options at the national level to increase transparency regarding the contracts between Governments and mining companies include:

- (i) Adopting internationally promoted codes of transparency such as Extractive Industries Transparency Initiative (EITI) and the Kimberley Process Certification Scheme;
- (ii) Increasing the disclosure of exploration and production contracts signed between Governments and companies, by making public an agreed set of variables relating to these investments;
- (iii) Making available to various levels and branches of Government and the general public the tax regime applicable to mining activities as well as conditions applying to specific investment projects (e.g. tax exemptions);
- (iv) Producing and disseminating budget information, including at the local level.

One way to support these objectives is through the passing of freedom of information-type legislation.

64. Transparency over the allocation and use of revenues can be enhanced by:

- (i) Inscribing those in the law in adequate frameworks;
- (ii) Ensuring that the allocation rules are enforced, and that information is made available to local and sub-national levels of governments on how they should receive on a regular basis;
- (iii) Providing for legal channels to oversee and supervise the use of revenues;
- (iv) Providing effective feedback mechanisms to local communities, regions, and at the national level, to convey priorities and needs, evaluate and report on the effectiveness of the use of revenues;
- (v) Developing adequate communication mechanisms between institutions involved in revenue management at different levels, and promoting communication between institutions; and
- (vi) Developing local capacities to manage revenues.

65. Governments can enhance the local contribution of mining to sustainable development by:

- (i) Recognizing the land rights of communities, including indigenous people, and ensuring access of local communities to the legal and administrative system relating to land rights;
- (ii) Creating and enforcing a legal framework conducive to meaningful participation of local communities and disadvantaged groups in decision-making relating to mining;
- (iii) Encouraging NGOs to build the capacity of local communities to know their rights and engage with mining companies during project implementation.
- (iv) Providing and implementing legal recourse systems for affected communities, in addition to encouraging direct settlement mechanisms between companies and the affected communities.

66. Many experts consider that in order to improve governance in the sector, the issue of conflicts of interests in government and regulatory agencies should be given serious consideration. The fact that trained personnel from government departments have the opportunity to join more lucrative positions in the industry when they leave public service has been noted as a source of corruption and conflicts of interests in developed and developing countries alike. The negative impacts of this effect can be more pronounced where capacity is already limited in government.

## **VI. Building and reinforcing national capacities**

67. The issue of adequate capacity of governments cuts across the whole life-cycle of mining operations. In many countries, including developed countries, the existence of gaps in government capacity has been identified as one of the main obstacles to achieving more favorable outcomes. Governments need to build capacity to survey their mineral resources; to deal with companies on a fair basis; to design laws and regulations in the mining sector; to enforce environmental and social regulations; to monitor the economic, social and environmental impacts of mining activities; and to manage the revenues that accrue from mining.

68. More broadly, but perhaps even more importantly, governments also need to be able to design and implement development plans, in order to fully use mining activities and mineral wealth to create wealth in other sectors that will survive mine closure. This includes building strong backward and forward linkages between mining activities and the rest of the economy. In many countries, this supposes reinforcing institutions able to elaborate such plans.

69. A first area where needs have been identified regards the need to reinforce the technical, legal and fiscal capacities of government officials, with a view to improving the capacity of governments to negotiate fair deals with multinational companies. The international community could support this goal. One option could be the creation of a critical mass of specialized experts, which could be shared, e.g. at the regional level. NGOs could provide support to small

countries lacking adequate resources to train enough personnel.

