



Methodology of Environmental Transparency Rating of Mining and Metals Companies Operating in Russia¹

(2019 rating calculation based on 2018 performance indicators)

Companies that extract and process minerals can make a significant contribution to the sustainable development of many regions and of Russia as a whole. To make this happen it is necessary for mining and metals companies to reach a high level of environmental responsibility, be ready to apply the most effective measures to minimize a negative industrial impact on environment, implement resources and energy conservation as well as corporate biodiversity conservation programs. One of the effective ways to achieve a high level of environmental responsibility for business, along with the optimization of state regulation, is to increase access to environmentally significant information and improve corporate policies, standards and practices.

The sectoral Rating is a new tool aimed at both increasing the corporate transparency of mining and metals companies' environmental performance and creating effective feedback mechanisms with interested parties for companies operating in this industry.

¹ Changes in the 2019 methodology as compared to the 2018 one are highlighted in green

Basic Principles of the Rating

- The Rating is based on the criteria specified, first and foremost, in the Basic Principles for Environmentally and Socially Responsible Policy of Mining Companies (https://wwf.ru/upload/iblock/1d4/basicprinciplesofresponsiblemining_eng.doc), and a range of international documents, such as: Initiative for Responsible Mining Assurance (IRMA) Standard (<https://responsiblemining.net/resources/>); Global Reporting Initiative (GRI) for Sustainable Development Guide (<https://www.globalreporting.org/resourcelibrary/GRI-G4-Mining-and-Metals-Sector-Disclosures.pdf>); Draft Mining Strategy (Document of the European Bank for Reconstruction and Development, <http://www.ebrd.com/downloads/policies/sector/draft-mining-strategy.pdf>) and others.
- The rating methodology is open to the public. Face-to-face and distant consultations dedicated to improving rating methodology are held annually with all interested parties.
- The evaluation is carried out across all segments — from the site infrastructure development and mining to processing of natural resources.
- The Rating is based on the data available in the public domain² in Russian language only.

² Availability in public domain is understood as being accessible to public in the form of annual business or socio-ecological reports, including reports on environmental protection measures (including at regional level). Also, for the purpose of this rating, any information is deemed to be publicly available if it is displayed on the official Internet sites of the relevant companies (including subsidiaries and contractors) with the necessary inclusion of references to the relevant pages in the site menu, or if it is provided through interviews of the companies' official representatives for federal or regional media.

- The Rating calculation is performed by a professional rating agency.
- The Rating is calculated for the largest companies (by the main types of minerals) operating in Russia. The selection of the companies is based on the State report “On Current Conditions and Use of Mineral Resources of the Russian Federation”. In addition, the Rating includes companies operating in the regions that WWF considers important for biodiversity conservation. The list of the companies on rating calculation in 2019 is attached at the end of the document.
- The Rating is performed on the annual basis. This allows for estimation of environmental indicators dynamics of the companies and the industry as a whole.

Structure of the Rating

The Rating consists of three sections: Environmental Management, Environmental Impact, and Disclosure of Information.

Section 1: Environmental Management

assesses the quality of eco-management in the companies. The criteria included in this section are in most cases substantially more rigid compared to the Russian legislation on environmental protection. However, these criteria correspond to the best global standards and practices in mining and metals business.

Section 2: Environmental Impact

evaluates the damage level for the environmental media (air, water and land) during the implementation of projects as well as the environmental performance level of the industrial companies. In most cases the criteria are based on components of state statistical reporting in the field of environmental protection. The data sources are represented by 2-TP reports (water, air, wastes and land), 4-OS reports (costs and payments), reflecting the impact of the companies on the environment as a result of their activities.

For comparative analysis between companies, this Section includes specific indicators derived by division of gross values by the company revenue. The Rating mainly uses quantitative values that are transformed to qualitative scale by comparing to last year numbers³.

Section 3: Disclosure of Information

³ We expect there will be enough companies to calculate the industry's averages in the mining sub sectors as the Rating develops.

evaluates the extent of companies' readiness to disclose information with respect to environmental impact of their industrial activities. Historically, Russian mining and metals industry is considered as a rather non-transparent community and the environmental information is not fully available to general public. The recent trend is a growing transparency of the companies.

Criteria 3.5 and 3.6 are assessed as follows. Each environmental-related conflict or an accident from the "Review of Environmental-related conflicts and accidents in Russian mining and metals companies" (published regularly by WWF Russia) is assessed according to the availability of the information about it in the public domain. If there is no information on a reviewed situation, the criterion is colored red. If a company comments on at least one of the reviewed situations, the criterion is colored yellow. If a company provides information and comments on several reviewed situations, the criterion is colored green. Also, if neither environmental-related conflicts nor accidents were found in the public domain, the criterion is also colored green.

Rating calculation

The Rating is calculated as follows.

1. **Each company is assigned color flags for each of criteria – Green, Yellow or Red.** When a criterion is not relevant for a given company (for example, the company does not dredge), no flag is assigned. In such cases, companies are required to present proof of being irrelevant to criteria. When the information related to the criterion is not available in the public domain **or the company does not provide the proof of criteria being irrelevant during the preliminary results communication**, then the red flag is assigned.
2. **At the next stage, points are assigned for every criterion and companies are rated in each section.** Red flag counts as 0 points, Yellow as 1 point, and Green as 2 points. For each section, companies are assigned an arithmetic mean of their points for criteria in

the corresponding section. In this calculation, only those criteria that have been assigned color flags are taken into account, i.e. criteria that are not relevant for a given company, are not included in the calculation. As a result, every company is assigned final points for Environmental Management Section, Environmental Impact Section and Disclosure of Information Section. Final points vary from 0 to 2. At this stage, the leaders are chosen in each of the following areas: Management (**Environmental Management Section**), Operations (**Environmental Impact Section**), and Information (**Disclosure of Information Section**).

In order to avoid disappearance or replacement of the data which were used for the ratings calculations of the previous years, the following motivating solution of the problem has been suggested. The retrospective evaluation of each company rated in the previous 3 years will be performed during the regular data collection. In case the data from the public domain disappeared or were replaced, the company will be asked to provide explanations on the reasons. If an adequate explanation is provided (for example, the new web site, new methodology, the data which were not considered previously), the amended data will be taken into account. If the reply is not adequate or lacking, the red levels will be assigned to the criteria where the data of the previous years had disappeared or had been replaced. Thus, total section rating (and overall rating as well) will go down for the companies which failed to explain disappearance or replacement of previously published data on their web-sites.

3. The final Rating is then calculated for each company by averaging three values assigned at the previous stages.

After preliminary calculation of the Rating, the company profiles are made public **on WWF Russia web-site** with the status “Preliminary Results” and are sent to the companies for data correction and update. Final company profiles become available to the public after the Rating results announcement.

The Rating organizers reserve the right to apply penalties (up to exclusion from the Rating calculations) in case of proved violations by a company in the field of human rights (e.g. negative assessment by the Human Rights Council **or corresponding Court decisions**).

The methodology of the Rating was developed by the initiative of WWF of Russia and UNDP/GEF/MINISTRY OF NATURAL RESOURCES OF THE RUSSIAN FEDERATION Project "The Tasks of Biodiversity Conservation in Russia's Energy Sector Policies and Programs" supported by a number of environmental NGOs. The team of authors: A.Knizhnikov (project manager), T. Berkeliev, A.Grigoriev, L.Ametistova, O.Kopylova with the participation of O. Moskvina, E.Perfilieva, T.Mikhailova, V.Elchaparov, M.Babenko, P.Osipov, I. Smelyansky, A.S. Martynov, E.A. Shvarts.

Section 1. Environmental Management

	Criterion	Reflection in the Rating
1.1	<p>Presence of quantitative efficiency indicators in the environmental management system (EMS) (as per the Standard 14001/GOST R ISO and others)</p>	<p>Green - Environmental Management System is in place in the company's main production outlets and its quantitative indicators are included in the company's public documents</p> <p>Yellow - Environmental Management System is in place in the company's main production outlets or its quantitative indicators are included in the company's public documents</p> <p>Red - Environmental Management System is not in place in the company's main production outlets</p>

	Criterion	Reflection in the Rating
1.2	<p>Company’s environmental policy (or other formalized corporate documents) includes:</p> <p>1.2.1 commitments to reduce landscape fragmentation and disturbed land area when developing new territories;</p> <p>1.2.2. commitments of freshwater ecosystems/spawning streams conservation;</p> <p>1.2.3 commitments to protect animal migration routes;</p> <p>1.2.4 willingness to avoid work in specially protected natural areas (SPNAs), their buffer zones, World Natural Heritage (WNH) sites and International Wetlands (Ramsar);</p> <p>1.2.5 policies on hazardous substances/processes (for example, cyanides, mercury, heap leaching);</p> <p>1.2.6. policies/standards for priority semi-dry, dry and underground disposal of enrichment rejects;</p> <p>1.2.7. requirement to perform a comprehensive assessment of environmental impact (EIA) beginning from the phase of construction and up to the phase of abandonment and cleanup within the bounds of the project and its related projects;</p> <p>1.2.8. prohibited hunting and fishing by personnel, including contractors, in the company areas of operations;</p> <p>1.2.9. integrated program for financing major environmental activities;</p> <p>1.2.10. requirements to environmental responsibility of partners in supply chains, including supply of services;</p> <p>1.2.11. requirements to extend the company’s environmental standards onto its contractors.</p>	<p>Number of positive answers:</p> <p>Green - more than 80%</p> <p>Yellow - 50-80%</p> <p>Red - less than 50%</p>
1.3	<p>Documented information on engagement with local communities leading traditional way of life (e.g. indigenous small-numbered peoples of the North)</p>	<p>Green - official document is in place (e.g. policy) and local communities leading traditional way of life are supported</p> <p>Yellow - official document is in place (e.g. policy) or local communities leading traditional way of life are supported</p>

	Criterion	Reflection in the Rating
		Red - not present
1.4	Energy efficiency program	<p>Green - quantitative indicators of energy efficiency (for instance, specific energy consumption) show positive dynamics compared to the previous year figures</p> <p>Yellow - quantitative indicators (for instance, specific energy consumption) showing the implementation of an energy efficiency program are available</p> <p>Red - no quantitative indicators are available to show results of energy efficiency program implementation</p>
1.5	<p>Presence of the following components in the biodiversity conservation programs in the company's areas of operation:</p> <ul style="list-style-type: none"> • fund allocations for biodiversity conservation measures; • presence of an approved list of indicative species in the areas of company's activities; • presence of study and/or monitoring programs for indicative species; • public availability of results of researches performed in the area of biodiversity conservation; • mechanisms of involvement of interested parties in discussing programs targeted at biodiversity conservation (discussing methods, approaches, results, etc.). 	<p>Number of positive answers:</p> <p>Green - more than 60%</p> <p>Yellow - 40-60%</p> <p>Red - less than 40%</p>
1.6	Presence of a production field dredging in a company's business practice	<p>Green - not present</p> <p>Yellow - partially (limited to specific projects or subsidiaries)</p> <p>Red - present</p>
1.7	Voluntary insurance of environmental risks	Green - presence of a corporate system of voluntary insurance against environmental risks in third-parties companies

	Criterion	Reflection in the Rating
		<p>Yellow - voluntary insurance against environmental risks in respect of individual projects or individual subsidiaries</p> <p>Red - absence of voluntary insurance against environmental risks</p>

Section 2. Environmental impact

	Criterion	Reflection in the Rating
2.1	Emission rate of SO2 into the atmosphere	<p><i>Indicator = gross emissions of SO2 into the atmosphere / company`s revenue, kg/RUB</i></p> <p>Green - the critereion value is equal to or better than the previous year's indicator</p> <p>Yellow - the critereion value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.2	Emission rate of NOx into the atmosphere	<p><i>Indicator = gross emissions of NOx into the atmosphere / company`s revenue, kg/RUB.</i></p> <p>Green - the critereion value is equal to or better than the previous year's indicator</p> <p>Yellow - the critereion value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.3.	Emission rate of solid suspended particles into the atmosphere	<p><i>Indicator = gross emissions of solid suspended particles into the atmosphere / company`s revenue, kg/RUB.</i></p> <p>Green - the critereion value is equal to or better than the previous year's indicator</p> <p>Yellow - the critereion value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.4	Emission rate of greenhouse gases into the atmosphere	<p><i>Indicator = gross emissions of greenhouse gases into the atmosphere / company`s revenue, kg/RUB.</i></p> <p>Green - the critereion value is equal to or better than the previous year's indicator</p> <p>Yellow - the critereion value is worse than the previous year or there is no indicator for the previous year</p>

	Criterion	Reflection in the Rating
		Red - the indicator is absent in public space
2.5	Water consumption for the company's own needs	<p><i>Indicator = water consumption for the company's own needs / company's revenue, m3/RUB.</i></p> <p>Green - the criteria value is equal to or better than the previous year's indicator</p> <p>Yellow - the criteria value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.6	Ratio of the amount of the utilized and disposed (including by third parties) wastes (class 1-4) to the amount of wastes (class 1-4) being handled (amount of wastes present as of the beginning of the year + amount of wastes received from other enterprises)	<p><i>t/t</i></p> <p>Green - the criteria value is equal to or better than the previous year's indicator</p> <p>Yellow - the criteria value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.7	Ratio of the amount of waste rock (mine tailings excluding overburden rocks) disposed during the reporting period (including wastes disposed by third parties) to the amount of rock waste being handled (the amount of rock waste as of the beginning of the year + the amount of rock waste generated during the year + amount of wastes received from other enterprises)	<p><i>t/t</i></p> <p>Green - the criteria value is equal to or better than the previous year's indicator</p> <p>Yellow - the criteria value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.8	Rate of accidents with negative environmental consequences	<p><i>Indicator = amount of accidents with negative environmental consequences / company's revenue, ea/RUB</i></p> <p>Green - the criteria value is equal to or better than the previous year's indicator</p> <p>Yellow - the criteria value is worse than the previous year or there is no indicator for the previous year</p>

	Criterion	Reflection in the Rating
		Red - the indicator is absent in public space
2.9	The proportion of excess charges in the total payments for adverse environmental impact	<p><i>Indicator = charges for excess emissions, discharges, and waste disposal / total environmental charges for the reporting year, RUB/RUB</i></p> <p>Green - the criteria value is equal to or better than the previous year's indicator</p> <p>Yellow - the criteria value is worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>
2.10	Recycled water consumption	<p><i>Indicator = 100 x amount of water used in recycling water supply systems/amount of water used for own needs</i></p> <p>Green - 70-100 %</p> <p>Yellow - 30-70%</p> <p>Red - up to 30%</p>
2.11	Operational activities (study of reserves, mining, primary processing and related infrastructure) in ecologically sensitive areas - SPNR, Ramsar wetlands, Key ornithological territories of Russia (KOTR)	<p>Green - not carried out</p> <p>Yellow - the activities are carried out but a company has a public plan of environmental impact minimization</p> <p>Red - the works are carried out without discussions of measures for environmental impact minimization with interested parties</p>
2.12	Power generation from renewable energy sources (RES), including for own needs	<p><i>% of the total amount of power generation</i></p> <p>Green - the criteria value is better than the previous year's indicator</p> <p>Yellow - the criteria value is equal to or worse than the previous year or there is no indicator for the previous year</p> <p>Red - the indicator is absent in public space</p>

Section 3. Disclosure of Information

	Criterion	Reflection in the Rating
3.1	Non-financial reporting in the field of sustainable development or environmental report is in compliance with the international requirements (such as GRI or ICMM)	Green - GRI application level Comprehensive or IIRF full Yellow - either GRI application level Core or IIRF partial or reporting is in compliance with ICMM/ASI requirements Red - not present
3.2	Third party confirmation (verification) of non-financial reporting	Green - professional verification (based on professional standards ISAE 3000, AA1000AS) and verification based on the opinion of interested parties (including public opinion) Yellow - professional verification (based on professional standards ISAE 3000, AA1000AS) or verification based on the opinion of interested parties (including public opinion) Red - no third-party verification is available, or no reporting is available in accordance with international requirements
3.3	Public access to documentation on environmental impact assessment (e.g. EIA) with EIA being also available online after public consultations	Green - for majority of projects Yellow - for some projects Red - not present
3.4	Access to OSCPs and OSERP (in part of environmental impact) in the public domain (for example, for hydroengineering structures)	Green - with feedback mechanism Yellow - without feedback mechanism Red - not present

3.5	<p>Informing the public (through the company web-site) about emergencies/accidents and mitigation measures thereof in respect of accidents having significant social and environmental impact⁴, causing major damages and arousing loud public discussions⁵, including those caused by contractor activities</p>	<p>Green - reliable data at the company web-site is available or no major accidents during the reporting period</p> <p>Yellow - fragmentary data at the company web-site</p> <p>Red - data missing or unreliable</p>
3.6	<p>Informing the public (through the company web-site) of environment-related conflicts⁶ and measures taken to resolve them within the areas of the company's operation, including its subcontractors.</p>	<p>Green - reliable data at the company web-site is available or no environment-related conflicts during the reporting period</p> <p>Yellow - fragmentary data at the company web-site</p> <p>Red - data missing or unreliable</p>

⁴ **Social and environmental impact** includes fatalities, injuries, significant financial loss (above 1 mln roubles), mass (more than 1000 clients) shut downs and events involving evident environmental damage. If environmental damage is evident (explosions, fires, strong smoke), the phrase "environmental damage was not registered" is not accepted (even if sourced by any official authority). From the fact that environmental damage was not registered, does not mean that it was not happening as the evidence (photo, video, smoke, fire) supports the opposite. Events lacking environmental damage (like electricity fatalities, construction failures, transport accidents etc) are not included in the Review.

⁵ **Public discussion** is defined as an event mentioned in at least 3 open sources with the mass media status or on web-sites of officially registered or influential public organizations (such as United National Front, Greenpeace, Public Chamber, WWF, Russian Bird Protection Union, All-Russia Environmental Protection Society, Green Patrol, regional environmental organizations). One publication is enough if an event is mentioned on official web-site of regulatory authorities (Public Prosecution Office, Rosprirodnadzor, Rostekhnadzor, Rosselkhnadzor and their regional affiliates).

⁶ **Environment-related conflicts** are defined as situations with the past, present or future environmental impact which:

1. Lead to inspections from regulatory authorities (Public Prosecution Office, Rosprirodnadzor, Rostekhnadzor, Rosselkhnadzor and their regional affiliates) and are reflected on their web sites;
2. Lead to protest movements from local communities;
3. Are discussed in mass media;
4. Are discussed by influential public organizations (such as United National Front, Greenpeace, Public Chamber, WWF, Russian Bird Protection Union, All-Russia Environmental Protection Society, Green Patrol, regional environmental organizations)

Sometimes the information becomes available after the significant amount of time after the event (for example, oil spills, illegal use of natural resources, violations of environmental safety rules etc). In this case, the event is dated according to the publication date.

Similarly, cases reviewed by the court may lead to 2-3-year-long legal proceedings. The final court decision or its execution will determine the end of the conflict. Updates on conflict development are included in the Review according to the publications dates. "Paper violations" are included in the Review if environmental risks (for example, absence of approval for pipeline exploitation, fire safety violations in forests) are present.

3.7	Established procedure in place for processing public complaints	Green - with feedback mechanism and procedure Yellow - with either a feedback mechanism or a procedure Red - not present
3.8	Availability of the Program for Reclamation of Disturbed Land in public domain	Green - the program is available including quantitative performance indicators Yellow - the program is available Red – program is not available

Test mode in 2019 (below criteria will not be included in Rating 2019 calculations):

Criteria added to Section 2:

Emission rate of SO2 into the atmosphere	<i>Indicator = gross emissions of SO2 into the atmosphere / production volume, kg/t</i>
Emission rate of NOx into the atmosphere	<i>Indicator = gross emissions of NOx into the atmosphere / production volume, kg/t</i>
Emission rate of solid suspended particles into the atmosphere	<i>Indicator = gross emissions of suspended particles into the atmosphere / production volume, kg/t</i>
Emission rate of greenhouse gases into the atmosphere	<i>Indicator = gross emissions of greenhouse gases into the atmosphere / production volume, kg/t</i>
Water consumption for the company's own needs	<i>Indicator = water consumption for the company's own needs / production volume, m3/t</i>
Rate of accidents with negative environmental consequences	<i>Indicator = number of accidents with negative environmental consequence / production volume, ea/t</i>

For all tested criteria, reflection in the Rating is the following:

Green - the **crit**erion value is **equal to or better** than the previous year's indicator

Yellow - the **crit**erion value is **worse** than the previous year or there is no indicator for the previous year

Red - the **ind**icator is **absent** in public space

The industry average (gold, coal extraction etc), when not available from official sources (Rosstat – State Statistics Service, Ministry of Nature, Ministry of Economic Development and their affiliates), is calculated as an arithmetic mean value for companies participating in the Rating.

List of Companies for Rating Evaluation in 2019

	Name of the Company	Mining/processing of minerals
1	Akron	Phosphorus, potassium
2	AGD DIAMONDS	Diamonds
3	ALROSA	Diamonds
4	Vostok Ugol	Coal
5	VostSibUgol	Coal
6	Vysochayshiy	Gold
7	EVRAZ	Coal, iron ore
8	Evrohim	Potassium
9	Zapadnaya Gold Mining Ltd	Gold
10	Zoloto Kamchatky (ZAO «Kamgold»/ ZAO «Kamchatskoye Zoloto»)	Gold
11	Kolmar	Coal
12	Kinross Gold	Gold
13	Kuzbasskaya toplivnaya kompania	Coal
14	Kuzbassrazrezugol	Coal
15	Lovozerky gorno obogatitelny kombinat	Ores of rare metals
16	Magnitogorsky metallurgichesky kombinat (MMK)	Iron ore
17	Metalloinvest	Iron ore
18	Metholding	Iron ore
19	Mechel	Coal
20	Novolipetsky metallurgichesky kombinat	Iron ore
21	Nordgold	Gold
22	Norilsky Nikel, MMC	Nickel, palladium
23	Petropavlovsk, Group of Companies	Gold
24	Polymetall	Gold, silver, copper

25	PolusZoloto	Gold
26	Priargunskaya PPGHO	Uranus
27	Rusal	Bauxite
28	Russdragmet (Highland Gold Mining)	Gold
29	Russkaya mednaya kompania	Copper
30	Russkaya platina	Platinum
31	Russky ugol	Coal
32	SDS-Ugol	Coal
33	Severstal	Iron ore, coal, gold
34	Seligdar	Gold
35	Sibirsky gorno-metallurgichesky alians (OAO «SiGMA»)	Gold, silver, platinum
36	Sojuzmetallresurs (SMR)	Molybdenum and copper ores
37	SUEK	Coal
38	UGMK	Copper and gold ores
39	Uralkaly	Potash ore
40	Phosagro, GK	Apatite-nepheline ore
41	YuzhUralZoloto	Gold