Current trends and key limitations of climate-related disclosure by Russian companies

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Abstract. Climate-related disclosure and reporting have become major topics of the discussion among the key players influencing business decisions in the past few years. The United Kingdom and other countries’ plans regarding mandatory climate-related disclosure for the major listed companies, investors’ enquires about CDP questionnaires to be filled and European Union actively promoting its carbon neutral plans influence Russian business community decisions. In order to comply with the latest trends and future demands it is critical to assess corporate carbon footprint correctly, especially for the most carbon intensive companies specialising in mining and steel production, which can be seriously affected by the forecasted EU Carbon Border Tax towards carbon intensive imported products. Although, currently there are some limitations which may misrepresent some of the Russian companies’ greenhouse gas emissions calculation results, and further decarbonisation initiatives. One of the key reasons is a lack of national methodological guidelines and emissions factors provided by the Russian ministries and research centres, which have to guide Russian companies in the field of regional-based emissions assessment. This article examines the current trends of climate-related disclosure based on the CDP scores of Russian companies and discusses the potential ways of improving the national methodological support in order to provide quality and credible data connected with the climate risk management and disclosure. The most important drawbacks were identified, such as the lack of methodological guidelines and emission factors for calculating direct greenhouse gas emissions (Scope 1), regional emissions factors for calculating indirect energy emissions (Scope 2) for the Russian Federation, as well as the lack of both methodological guidelines and emissions factors database for calculating other indirect emissions (Scope 3). Finally, the expected consequences of such methodological disadvantages were described, and the recommended steps to improve the effectiveness of this climate-related disclosure practice were proposed.

1. Introduction
Concerns about the effects of climate change are currently being actively discussed at the international and regional levels, attracting increasing attention from various stakeholders. In Russia, in comparison with the last decade, discussions about climate risks have recently started more actively at the national...
and governmental level. After a long discussion of various possible formats for national climate-related regulation, it was preliminary approved and is now planned to be implemented in the nearest future, although there is no descriptive details on its mechanism provided yet. As this article is going to discuss the climate-related reporting issues, it is important to mention that one of the planned regulation’s part is a mandatory regular reporting of greenhouse gas (GHG) emissions by regulated organisations. Taking into account the fact that climate regulation is finally being implemented in Russia, the Russian companies will have to consider this aspect more seriously than before, when disclosure of GHG emissions information and setting climate targets were voluntary.

Other critical factors for companies to improve their activities in the field of climate change agenda are investors demand and the climate activity of other countries, such as the EU, importing products from the Russian Federation. Given that the export of Russian companies is one of the most carbon-intensive, there are high risks of large losses for companies exporting carbon-intensive products, for example steel [1]. Investors are more concerned about climate-related disclosure recommendations and ESG-ratings, such as CDP and TCFD (Task Force on Climate-related Financial Disclosures), which are becoming the most important and internationally recognised initiatives. Furthermore, it is significant that, according to the ERM Institute for Sustainable Development (a company that specialises in providing environmental, health, safety, risk, and social consulting services), the CDP climate rating is the most highly rated in terms of credibility and trust among investors. This proves the major level of importance of climate-related information disclosure by Russian companies.

Investors’ interest is also strongly linked to the planned implementation of obligations for large companies to disclose climate information on the London Stock Exchange from 2022, where the largest Russian companies, such as Polyus, NLMK, Severstal, EVRAZ, Gazprom and others, are listed. In addition to the London Stock Exchange, some countries have also begun to implement climate disclosure requirements. In addition to the disclosure requirements introduced on the London Stock Exchange and in some countries, the topic of climate change is more material for investors than all other aspects of ESG (Environment, Social, Governance) according to the results of a survey by LGT Capital Partners.

Without reliable estimation of GHG emissions it is impossible to ensure appropriate GHG management and reduction. Researchers from countries with the more developed GHG reporting system, such as Baboukardos [2] describing the UK experience, also highlight the importance of reporting as a first step towards GHG reduction and conclude that mandatory reporting has positive effects. However, today companies in Russia face some restrictions related to GHG emissions accounting and further disclosure of this information. Moreover, there is a very limited number of scientific papers mentioning this issue of the lack of standardised methodologies across countries for all types of the emissions. Those who discuss this problem, Khan [3] for instance, also state that there are constraints related to the lack of suitable GHG accounting methodologies in general.

This article observes the climate information disclosure scores received by Russian companies in CDP rating, as well as describes the main limitations identified on the basis of a comparative and analytical analysis of international and national methodologies in contrast to Russian existing guidelines. The proposed measures necessary to improve the efficiency of the assessment and disclosure of GHG emissions in Russia are also described.

2. Results and Discussion
The most common approach to classifying GHG emissions is described by the GHG Protocol Guidelines, developed by international NGOs such as the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). According to GHG Protocol, GHG emissions are divided into three types:

1. Scope 1, direct GHG emissions primarily from direct combustion and use of fossil fuels.
2. Scope 2, indirect energy-related GHG emissions primarily from the purchase of heat and electricity.
3. Scope 3, other indirect GHG emissions primarily from the use, purchase, and disposal of goods and services.

Apart from the general characteristics, this scope classification was used for further analysis of the methodologies according to the degree of their completeness and reliability of GHG calculation guidelines. Then, the most widely used and complete methodological instruments used by Russian and international companies to estimate GHG emissions were analysed:

1. Methodological guidelines, order of the Ministry of Natural Resources and Ecology of the Russian Federation No. 300 of 30.06.2015;
2. Methodological guidelines, order of the Ministry of Natural Resources and Ecology of the Russian Federation No. 330 dated 29.06.2017;
3. GHG Protocol Guidelines;
4. 2006 IPCC Guidelines for National Greenhouse Gas Inventories;
5. Government conversion factors for company reporting of greenhouse gas emissions provided by the UK Department for Business, Energy & Industrial Strategy;
6. Emission Factors for Greenhouse Gas Inventories provided by the US EPA (United States Environmental Protection Agency);
7. The National Greenhouse Accounts (NGA) provided by the Australian Government, the Department of Industry, Science, Energy and Resources.

Nowadays, the accurate reporting of Scope 1, 2, 3 of GHG emissions is a necessary step towards successful climate-related disclosure, as most of the ESG-ratings, reporting guidelines and recommendations including CDP and TCFD encourage disclosing information about all of the three scopes. Quantifying product carbon intensity is also a fundamental data for managing the climate agenda which is not possible without assessing the Scope 3 emission or the related emissions factors. This information also helps assessing the maturity of the company in terms of climate change agenda, setting emission reduction targets, further monitoring of the progress of emissions reduction, assessing climate risks, and disclosing information to stakeholders.

Taking into account the importance of the CDP climate rating for investors, the preliminary analysis was processed to demonstrate the trend of Russian companies’ scoring results in terms of quality and completeness of disclosure. Based on the CDP responses from the last five years (2016-2020), the following graph was made, reflecting the change in scores assigned to Russian companies after completing the questionnaire. The data of all Russian companies that were rated by CDP was used, information was retrieved from the official CDP website.
Within the period of 2016-2020 about 60 Russian companies were consistently evaluated by CDP rating. At the same time, most of them either do not have a score at all, or have a score of F, which means that climate-related data is at the very low level or there was no answers provided. In general, the scores are distributed as they increase from F (lowest) to A (highest). It is noticeable that the highest ratings of A and B have appeared in the list of Russian companies only since 2018 but the highest A score still has not ever been appeared among Russian companies. Over the past two years, there has been a significant decline in F ratings, meaning companies have become more active in providing climate information.

A fairly sharp increase in the number of companies that disclose information in the questionnaire is justified by external factors in the form of increasing investor interest significantly affecting the decision-making process in companies. It also confirms the need for a qualitative and reliable quantification of emissions for appropriate disclosure. The critical fact is that such ratings and disclosure recommendations (CDP and TCFD) have a material share of the questions related to GHG accounting and reporting, as well as verification of those calculations, which are based on reliable and complete methodologies. Moreover, not only this information is now used by investors in terms of financial risk assessment but the information as a whole about climate-related initiatives and the plans for decarbonisation have become a significant interest aspect [4].

Despite the growing number of disclosures, the rating scores of Russian companies are still low. Some of the reasons are the absence of climate-related disclosure, poor quality of disclosure, and the lack of quantitative estimates for all emission categories (Scopes 1-3). One of the most significant reasons is the lack of appropriate regional requirements, guidelines and emission factors that significantly affect emissions accounting process and results, and the lack of completeness of national methodologies and emission factor bases. The results of a comparative analysis are provided below, which include information about the most common international and national methodologies and guidelines for GHG emissions accounting, which are used by the largest companies around the world. The Australian, American, and British methodologies were chosen because many leading heavy industry companies that are critical in terms of assessing greenhouse gas emissions as representatives of the most carbon-intensive sectors of the economy belong to the countries mentioned above. Also, these methodologies were chosen due to their high quality and completeness, as well as provision of
other carbon calculation tools (for example, carbon calculators for assessing carbon footprint of households).

**Table 1.** Comparison by the key climate disclosure indicators of international and national GHG emission accounting methodologies.

| Methodology   | Ministry of Natural Resources | IPCC Guidelines | GHG Protocol | UK DEFRA | EPA          | NGA          |
|---------------|-------------------------------|-----------------|--------------|----------|--------------|--------------|
| Updates frequency | Russia                       | No update       | Was updated in 2019 | N/A      | Every year | Every 2-3 years | Every year   |
| Availability of recommendations on boundary setting | Partially | Partially | Yes | Yes | No\(^a\) | Partially |
| Scope 1 methodology | Yes | Yes | Yes | Yes | Yes | Yes |
| Scope 1 emission factors | Yes | Yes | No\(^b\) | Yes | Yes | Yes |
| Scope 2 methodology | Yes | No | Yes | Yes | Yes | Yes |
| Scope 2 emission factors | No | No | No\(^c\) | Yes | Yes | Yes |
| Scope 3 methodology | No | No | Yes | Yes | Yes | Yes |
| Scope 3 emission factors | No | No | No\(^d\) | Yes | Yes | Yes |
| Disclosure guidelines | No | Yes | Yes | Yes | Partially | No\(^e\) |

\(^a\) Refers to the GHG Protocol  
\(^b\) Recommends the IPCC guidelines for use  
\(^c\) Recommends the use of national databases or International Energy Agency coefficients  
\(^d\) Recommends the use of national databases  
\(^e\) Refers to the GHG Protocol and national standards NGER (The National Greenhouse and Energy Reporting Act 2007 (NGER Act))

This analysis was carried out at the general description level among some of the most commonly used national and international GHG calculation instruments, which showed that the Russian national methodology is significantly behind in terms of the lack of emission factors and recommendations for disclosure of information, and the definition of organisational and operational boundaries, which can affect the correctness of the emission accounting results. Despite the fact that one of the targets of the last version of planned Russian climate-related legislation includes mandatory GHG reporting, currently there is no news on methodology updates and any recommendations on instruments to use, which might affect the GHG emissions data provided for the national inventory indicating by incorrect volumes of companies' emissions when using different methodological instruments for GHG accounting.
It is worth noting that there are more differences between the methodologies, which were not covered by this particular article as they are related to more detailed methodological characteristics but might have less effect on GHG accounting results. For example, the Russian methodology, in addition to the upper-level assessment, has no such calculation recommendations and emissions factors for assessing direct emissions (Scope 1) from mobile combustion sources, which includes all emissions from transport and other mobile means of transport. This is critical, first of all, for companies that do not have heavy industrial operations, and whose direct emissions consist almost entirely of emissions from transport.

The results of the analysis also show that even though the international GHG Protocol and IPCC methodologies are available, they are not sufficient to fully calculate all emission categories, especially Scope 2 emissions, the calculation of which depends significantly on the emissions factors used. These emissions relate exclusively to the amount and source of energy used, and therefore the carbon intensity of energy production in particular regions plays a significant role. Currently, for Russia, the most applicable available method for calculating such emissions is the regional method using the emissions factors of the International Energy Agency, which is expensive (as you have to pay for the database) and it also greatly distorts the indicators due to the fact that Russia is a huge country with a large number of regions and different carbon intensity of energy production. For example, energy production in the Komi Republic may be several times more carbon intensive than in the Republic of Karelia, due to the predominant number of thermal power plants in the Komi Republic and a large number of hydroelectric power plants in Karelia. Scope 2 emissions accounting by using market-based method is also not available as soon as Russian energy companies do not yet provide relevant coefficients to customer companies, which is another limitation and makes it impossible to calculate emissions in a more detailed and reliable way.

Finally, the lack of quantitative data on GHG emissions accounting from almost any company that interacts with contractors and other business partners limits a reliable and detailed assessment of Scope 3 emissions as it is based on GHG emissions companies’ contractors and business partners. This emissions category is the most difficult to calculate, and at the same time, these other indirect emissions account for more than 50% of GHG emissions from many companies, so they are critical for the complete assessment of carbon footprint of a company.

3. Conclusion

It was shown that at the moment, given the rapidly growing interest towards climate change agenda, including the largest Russian companies, the field of climate information disclosure and climate reporting is becoming a critical aspect for business operations in terms of appropriate management of ESG indicators and climate agenda.

It was determined that the Russian developed methodology for emissions accounting compared to other widely used methodologies is not complete enough for the correct assessment of GHG emissions by Russian companies, taking into account the regional features of the companies. Firstly, it is due to the lack of publicly available emission factors for Scope 2 and Scope 3 emissions. Secondly, there is a lack of annual updates, which are required due to constant technological progress and increasing energy efficiency. Even the members of the Russian Union of Industrialists and Entrepreneurs, who often oppose the tightening of climate regulation in Russia, speak of the need to "create a comprehensive system for accounting for GHG and absorption, including the reporting of regulated organisations on GHG emissions".

Due to the lack of nationally standardised and complete methodology, companies have no other option other than using the guidelines and emissions factors of other countries for Scope 3 emissions and calculation of product carbon footprints, which is not correct due to regional feature of energy production systems, different product production footprints and other issues. The fact that Russian companies are forced to use other countries’ methodologies and emissions factors for some emissions types, primarily Scope 2 and Scope, might significantly affect the further reliability of data provided at
the national level and quality of decarbonisation strategies development, which can negatively affect their reputation and statistics.

It is assumed that national and governmental structures are responsible for providing high-quality coefficients and methodologies to ensure:

1. Comparability.
2. Reliability of calculations.
3. Completeness of calculations.
4. Sufficient detail of emission results disclosed.
5. Standardised approach.

Therefore, the following possible steps were suggested to improve the efficiency of the GHG emissions accounting system and approach for Russian companies in order to ensure quality climate-related disclosure.

1. Ensuring a quality GHG accounting methodology and providing organisations with GHG emissions factors relevant to Russia, namely:
   • Finalising the methodology for missing areas of emission accounting (for example, for mobile combustion sources of direct greenhouse gas emissions).
   • Refinement of the national emissions factors database, primarily for Scope 2 and Scope 3 emissions.
2. Annual update of the emission factors, primarily for the Scope 2 emissions factors as soon as those depend on carbon intensity of energy production in different regions.
3. Continuation of the discussion with stakeholders on the implementation of mandatory standardised climate reporting and methodologies in the Russian Federation.
4. Introduction of mandatory reporting on climate change for all energy sector companies regardless their GHG emission volume as soon as this sector is the most carbon intensive and has the highest decarbonization potential, and require energy companies to provide actual factors of carbon intensity of their energy production processes to ensure their client companies can calculate Scope 2 emissions using the market method that is more accurate than regional method.
5. Implementation of recommendations and requirements for disclosure of information about Scope 1, Scope 2 for companies interacting with contractors in order to allow the assessment of other indirect emissions (Scope 3) for their business partners. These disclosures will allow counterparty companies to estimate Scope 3 emissions in a more reliable way (by requesting data from business partners across the entire value chain).
6. Implementation of recommendations for disclosure of information about all GHG emissions (Scope 1, 2, 3) at the national level in terms of methodological instruments to use in order to ensure comparability and reliability of the data.

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