

This is an electronic reprint of the original article. This reprint may differ from the original in pagination and typographic detail.

---

## Conceptualizing “Green economy” in Russian academic debate

Korppoo, Anna; Tynkkynen, Nina; Tarusina, Inessa

*Published in:*  
Eurasian Geography and Economics

*DOI:*  
[10.1080/15387216.2022.2081928](https://doi.org/10.1080/15387216.2022.2081928)

Published: 03/06/2022

*Document Version*  
Accepted author manuscript

*Document License*  
CC BY-NC

[Link to publication](#)

*Please cite the original version:*

Korppoo, A., Tynkkynen, N., & Tarusina, I. (2022). Conceptualizing “Green economy” in Russian academic debate. *Eurasian Geography and Economics*, 1-23. <https://doi.org/10.1080/15387216.2022.2081928>

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

# CONCEPTUALIZING “GREEN ECONOMY” IN THE RUSSIAN ACADEMIC DEBATE

## *Abstract*

Green economy (GE) is a fairly new concept in the domestic discussion in Russia, which has lagged behind other developed economies in terms of environmental governance. This article examines how GE is conceptualized in the Russian academic discussion and how this debate reflects international conceptualizations of the concept. Drawing on a coding frame inspired by the international literature on GE, we find that the Russian academic discussion tends to operate with what we call a strong interpretation of GE that is not yet sufficiently developed to underpin actual policy-making. Russian academics view GE as a solution to the environmental, social and as economic problems that stem largely from the country's resource-exporting and industrial economy, and highlight problems with the quality of environmental administration. Finally, the benefits/threats thinking characteristic of the Russian environmental debate directs GE discussions towards environmentally weaker interpretations.

*Keywords: green economy, green growth, Russia, thematic analysis*

## 1. Introduction

Economists disagree on the minimum set of conditions necessary for achieving sustainability (Stern 1997, 150). The importance of green growth—i.e., economic (GDP) growth which also achieves significant environmental protection—has become prominent in the policy discourse of international economic and development institutions and governments alike (Jacobs 2013, 197). The term “green economy” (GE) is often used interchangeably with “green growth” (Allen and Clouth 2012), as both concepts concern ways of improving the results of economic activity with less impact on the environment and natural resources than is the case with traditional “brown” growth (Jacobs 2013), possibly even functioning as a “new engine for growth” (UNEP 2011, 2). However, the two concepts differ in scope: whereas GE highlights greening in terms of increased social welfare, green growth aims at continuous economic growth, simultaneously recognizing the role of natural capital in planning processes and national accounts (Kaszelan 2017). Both concepts remain political, and academic debate on many of the basic claims continues (see Georgeson et al. 2017; Merino-Saum et al. 2020), as well as the critique of the underlying assumption of constant growth (e.g. Wanner 2015). Some scholars have seen green growth and GE as buzzwords; others, as a potential paradigm change which might gradually gain wide acceptance, generating path dependency after initial institutional support (Bowen and Fankhauser 2011; Fouquet 2019).

Russia industrialized under the Soviet system, but it still lags behind the West as to environmental policy priorities (Ministry of Natural Resources and Ecology 2020; Oldfield 2005) and lacks a functional and comprehensive regulatory basis for environmental protection (see Kochtcheeva 2009; Newell and Henry 2016). There is no explicit official political framework for GE in Russia, such as a doctrine or a government program, but the concept and its elements appear in a range of official documents and political statements.<sup>i</sup> Ever since the global GE debate got underway, various environmental policies have addressed environmental protection in Russia, including energy efficiency (Russian Federation 2009), the utilization of associated petroleum gas (APG) (Russian Government 2009), renewable energy (Russian Government 2013), municipal waste (Russian Government 2016) and best available technology (Russian Federation 2014). The Russian government conceptualizes GE largely through technology development as “efforts involving design, production and use of technologies and equipment for control and reduction of emissions of pollutants and greenhouse gases, technologies of energy and resource conservation and renewable power generation, as well as the development of market and nonmarket incentives for business sector” (Russian Government 2012a, 46–48). Regardless of the legal basis, technological improvement, which could be expected to make the economy better equipped for solving environmental (or other) problems in the future, has remained limited. Very low levels of company innovation activity,<sup>ii</sup> weak framework conditions for innovation (lack of competition, low levels of trust, corruption), weak infrastructures and regulations, institutional inertia and active resistance to efforts at policy reform from interest groups have long distorted technological development in Russia (OECD 2011b). The recent Western sanctions on financial institutions and technology imports as a result of Russia’s attack on Ukraine add to this picture.

As Russian academics have noted (Bobilev et al. 2015; Panova 2017), the concept of GE is fairly new in Russia. Examining the various conceptualizations can provide new insights into how to overcome miscommunication, facilitating dialogue at several levels (see Shenhav

2004). This article focuses on *how “green economy” has been conceptualized in the Russian academic literature, and how this discussion reflects the international conceptualizations of the concept*. We use the main themes identified in the international academic literature defining GE as a coding frame to analyze academic articles written by Russian authors, and inquire into the strictness of approaches through the theoretical dichotomy of weak vs strong GE identified in the international literature. Examining GE through the central themes used as criteria for assessing the weakness and strength of interpretations helps to shed light on important conceptualizations. We are particularly interested in the range of conceptualizations within Russia, as well as between Russia and the international discussion from which the concept of GE originates: although the concept of GE is discussed in Russia, some central elements of this concept may be less influential, or studied and understood differently there than internationally.

The next section provides an overview of GE in the international academic literature as well as its central themes, to be used as a preliminary coding frame for the Russian materials. Our methodological approach, materials used and the research task are also outlined. The results of our research indicate how GE is conceptualized by the Russian academics within themes that emerged in the international and domestic bodies of literature. To our knowledge, this study presents the first overview of the literature and the first systematic scrutiny of conceptualizations of GE in Russia.

## 2. *Methodology, approach and materials*

Gruber (1995, 907–908) defines conceptualization as “an abstract, simplified view of the world that we wish to represent for some purpose”; further: “[e]very knowledge base, knowledge-based system, or knowledge-level agent is committed to some conceptualization, explicitly or implicitly.” We propose that part of the miscommunication between political and academic discourses as well as between Russian and international discourses is caused by differences in constructing and interpreting key concepts such as GE, or sustainable development—as Oldfield (2005) has shown.

International research has identified three emerging agendas of GE, differing in terms of how radical they are as regards the depth of the necessary greening and their stance towards the quality of growth: weak, transformational, or strong green economy (Georgeson et al. 2017; Bina 2013; Faccar et al. 2014; see also below). For simplicity, we apply the weak vs. strong dichotomy to assess Russian academic literature on GE, asking: *Do Russian academics interpret the concept of GE in the context of the current state environmental policy of a raw-materials-exporting country, or do they employ a stronger interpretation of GE?* Such an assessment is important, as the GE label may be applied to many activities, ranging from “green-washing” to deep ecologization.

We have systematically reviewed the international academic literature to map the central themes in the GE discussion. The material was collected by using the Web of Science databases, including all its databases. The search term used was *green economy*; only titles of articles were addressed in the search as it was assumed that papers that discuss the concept would have the term in the title. No timeframe was applied. The search yielded 353 hits, the first from the 1970s, but with the majority published during the past five to six years (top year 2016, with 59 publications). Most of the papers were conceptual, but also empirical and sectoral analyses were included. Review papers were further used to extend the relevant

bibliographies. This snowballing brought the total number up to 400. In the final analysis, only papers with 10+ citations were included. These papers were categorized manually by using the identified agendas of GE—weak and strong green economy (Georgeson et al. 2017, see below)—as the frame for the categorization. Next, themes helping to assess whether a given article concerned weak or strong GE were identified by using inductive thematic analysis, with attention to recurrent themes. Our aim was not to present a balanced overview of the international academic literature as such, but to identify central themes to be used as a tentative coding frame for analyzing the Russian academic literature on GE.

GE began to appear in the academic literature in Russia toward the end of the first decade of the 2000s. We tracked this discussion: articles for potential inclusion in our analysis were identified through academic search engines (cyberleninka.ru, elibrary.ru) and using a snowballing method based on the reference lists in articles already identified. As a result, several articles from the first decade of the 2000s were included, together with more recent contributions. Altogether 28 articles were selected (see Appendix 1) focusing on GE written in Russian or English by all-Russian authors. Not all articles that came up were included: we focused on those that offered original and relevant insights into the definition of GE, and not, for instance, reviews of the topic based on the writings of others, which abound in Russian academic journals.

Thematic analysis was applied to organize the material regarding both the international discussion and Russia. Thematic analysis is a method of systematically identifying, organizing, and offering insights into patterns of meaning (themes) across a dataset. *Themes* are “broad topics or issues around which the codes cluster” (Braun and Clarke 2012, 63). A theme “captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the dataset” (Braun and Clarke 2006, 82). Rather than the frequency of the themes in the material, the significance of the contribution to defining GE guided our choice of themes.

A deductive approach to coding data was chosen; key themes conceptualizing GE were inspired by the international literature, which thus guided the analysis as a coding frame. This top-down approach allowed us to analyze whether the original features of GE from the international debate were included in the Russian conceptualizations, how they were interpreted, and how the socio-cultural context was built into the interpretation. Thus, the thematic analysis in our study is critical and constructionist. Coding was conducted manually, as that facilitates the search for new interpretations and elements which may not be captured by the initial categories (Chong and Druckman 2007). We now turn to the main themes related to the definition of GE in the international literature, establishing the coding frame for our analysis of Russian academic articles on GE.

### 3. *Debating green economy in international research: a coding frame*

Although the term green economy first appeared in the report *Blueprint for a Green Economy* by Pearce et al. (1989) and was theorized by Jacobs in 1991, the concept did not become widespread in academia and practice until the end of the first decade of the 2000s (Merino-Saum et al. 2020; Boehnert 2016; Faccar et al. 2014; Loiseau et al. 2016). International organizations, including the UN and the OECD, adopted the concept of GE, and that of green

growth, in their strategies (see UNEP 2011; World Bank 2012). The emerging recognition of GE has been explained by rapid technological developments (Jänicke 2012), as well as by the global “double” crisis, where GE has been seen as part of the solution to economic as well as environmental paralysis (Bina 2013). However, GE has also received considerable and growing criticism, including accusations of “neoliberalization of nature” (Wanner 2015), and the “myth” of decoupling growth from the environment, pollution generation, and resource consumption (Swyngedouw 2010). It has also been held that GE diverts attention from the social and political dimensions of sustainability, including issues of social and international justice, which are seldom discussed in connection with GE (Boehnert 2015). Moreover, GE may give rise to doubts concerning participation, democracy, and the inclusion of stakeholders outside the economic sphere (see e.g. Pitkänen et al. 2016).

Scholars have identified three emerging agendas of GE, which differ in terms of how radical they are towards the depth of the necessary greening and their stance towards the quality of growth: weak, transformational, or strong green economy (Georgeson et al. 2017). Bina (2013) classifies these agendas as “almost business as usual,” “greening,” and “all change,” whereas Faccar et al. (2014) term them “the incrementalist discourse,” “the reformist discourse,” and “the transformative discourse.” This can be seen as a spectrum of interpretations from market-led, business-as-usual types of weak green economy through to a strong green economy involving radical changes, such as a steady-state economy or even de-growth (Kenis and Lievens 2015; O’Neill and Gibbs 2016). Weaker versions of it have received more academic criticism than the stronger ideas of GE, which may even de-couple prosperity and quality of life from the demands of economic growth (Gibbs 2020). We have further developed the spectrum from weak to strong by identifying and explicating themes in the GE discussion that help in analyzing and explaining the differences between weak and strong GE. The still-preliminary status of GE analysis in Russian does not provide sufficient material for applying a more detailed division of GE interpretations into, for instance, incrementalist, reformist, and transformative.

The first of the themes that we identified as defining the weakness or strength of GE is *environmental stringency*. There is disagreement as to what can be deemed “significant” in terms of environmental protection (Jacobs 2013). For example, differences have been documented in the stringencies of GE definitions between international organizations (Hickel and Kallis 2020; Smulders et al. 2014). The World Bank (2012) was found to be the weakest, as it has seen GE as “minimizing” rather than reducing the environmental impacts of growth. The strongest organization was UNEP (2011), which sees “reducing” environmental impact and ecological scarcities and rebuilding natural capital as necessary. UNEP has also called for “absolute decoupling” of GDP from resource use and environmental impacts: that would imply that total consumption of, for instance, energy in the economy, would remain constant or decline while the economy continued to grow—in contrast to the less environmentally stringent “relative decoupling,” which would involve the reduction of consumption per product unit (Ward et al. 2016; Victor and Sers 2019).

The second theme concerns the *quality of growth*. Traditional “brown” growth is seen as replaced by a more environmentally friendly, “green,” development (see van der Ploeg and Withagen 2013). Many expect that a “new industrial revolution” with a transition to low-carbon growth could foster innovative and creative growth. For instance, the Stern Review (2007) argued that stabilizing the climate would gradually become more expensive. Shifting long-term investment (also by directing public finance) towards greener options to avoid

lock-in to less efficient and emissions-intensive technologies has been a point of discussion for some time, also referred to as “the Green New Deal” (UNEP 2011; World Economic Forum 2013). For instance, green investment was taken as an important criterion of the European Union’s Covid recovery package in 2020: allocating 25% of the package to climate investments, requiring all investments to “do no harm” to the environment, and generating green jobs (European Commission 2020). However, economic theory and empirical evidence of the limitations of economies as regards improving the efficiency of material use and reducing carbon emissions have also been cited, questioning GE’s potential as a source of better or higher growth (see Hickel and Kallis 2020). “Growth first, clean-up later” thinking related to the environmental Kuznets curve (see e.g. Dinda 2004; Stern 2004)—which has also been heavily criticized (see for instance Chen et al. 2019)—holds that poorer societies care less about environmental damage, but that, as they develop and manage to meet the basic needs of their populations, interest and environmental investment will increase significantly (World Bank 2012).

The third major theme defining the weakness or strength of GE is the *role of the current economic system*, and GE’s dependence on it. This debate on the feasibility of solving the ecological crisis through GE boils down to disagreements between those who see GE as a feasible path and those who argue that what is needed is to limit growth, rather than achieving (even) green growth (Lipsey 2019; Brockington 2012). Economic growth that can facilitate progress towards greener solutions for society entails a dilemma concerning growth itself: growth enables higher consumption, the very thing that *green* growth seeks to reduce: the “Jevons Paradox” (Lipsey 2019; Hickel and Kallis 2020; Foster 2011). The counter-argument is that the policy tools of GE are well-known and tested, whereas it remains unclear how the state of a-growth or de-growth could be achieved under democratic systems, or exactly how that would contribute to solving environmental problems—as current solutions are dynamically linked to sufficient levels of economic growth (e.g. Schultz and Bailey 2014; Swyngedouw 2010). GDP is widely recognized as being an inadequate proxy of welfare: for instance, it fails to capture income inequalities or environmental externalities. This has led some economists to propose ignoring GDP growth as the leading indicator and focusing instead on the increase in welfare that takes place when social and environmental problems are solved (van den Bergh and Drews 2019). This links up with criticism of GE as exacerbating global inequalities between the North and South, as well as more locally in the South and in the North (see e.g. Martinez-Alier et al. 2010).

Under the fourth category, *social impacts* and questions of justice are included in the definition of GE to varying degrees. The main focus here tends to be on the intergenerational social aspects, and to avoid reducing the possibilities of welfare for future generations. More immediate impacts on the social sphere include improvements in the quality of the living environment, avoiding future environmental (and thus, social) disasters, and generating green jobs. For instance, UNEP (2011) has emphasized the developmental approach through equity and poverty reduction, including green jobs (e.g. Victor and Jackson 2012), whereas the OECD (2011) mentions only the green jobs dimension (Borel-Saladin and Turok 2013). Green jobs are anticipated to provide a decent living in terms of “traditional labour concerns including wages, career prospects, job security, occupational health and safety as well as other working conditions, and worker rights” (UNEP et al. 2008). However, it has been held that the green jobs generated have been overestimated, that they originate from government



campaigns, and have negative impacts on the economy (Morriss et al. 2009; Alvarez et al. 2010).

This review of the GE concept in the international literature inspired a coding frame consisting of four initial themes: *environmental stringency*, *quality of growth*, *the role of the current economic system*, and *the social impacts of GE*. Our analytical frame make a distinction between the weak and strong interpretations of GE, based on how these four themes are addressed (see Table 1).

<TABLE 1>

#### 4. Conceptualizing green economy in Russia

We approach the first theme, the *environmental stringency* of the definition of GE, by examining how the environmental impact of the economy is described in definitions of GE. In the international literature, “reduction” of environmental impact versus its “minimization” was the main language that reflected environmental stringency. In the Russian discussion we found some authors who called for minimizing environmental impacts or economic growth without increasing the environmental risks (Panova 2017; Samarina 2015; Samarina and Skufina 2015), and reducing them (Radionova and Lipina 2015; Glazyrina 2017; Kiryushin 2014; Svetikov 2018; Voikina and Potravny 2018; Svarts et al. 2017). Further, proposals like “taking into account” the environmental impacts (Bahtinova et al. 2019; Danilenko 2013), improving the quality of the living environment (Porfiriev 2013), and extending the welfare society to include environmental friendliness (Matraeva et al. 2019) clearly lie at the “weak” end of GE. Many authors simply cited the definition of “sustainable development” as not exposing future generations to significant environmental risks (Kiryushin 2014; Ivanova and Levtsenko 2017; Zashneva and Mustafava 2019) or providing an uninterrupted supply of natural resources and ecosystem services (Radionova and Lipina 2015; Nosko 2017); these could be interpreted as somewhat stronger approach to GE. Economics was also considered to be dependent on the natural environment/capital, which indicates a departure from neoclassical welfare economics, and is thus in line with “strong” GE (Ivlev and Ivleva 2018; Ivanova and Levtsenko 2017; Bobylev et al. 2015).

Decoupling—one of the indicators that illustrate the trend towards a greener economy—is mentioned in relation to GE by some Russian scholars, although no clear distinction is made between relative and absolute decoupling. Bobylev et al. (2015) provide a graph that shows the relative decoupling of water consumption from gross regional product, as well as a similar tendency, albeit less clear, regarding air pollution. Without explicitly stating this, Samarina (2015) would seem to refer to absolute decoupling, as she defines decoupling as taking place when environmental pollution or consumption of natural resources is decreasing or remains unchanged; however, Zashneva and Mustafava (2013) speak of minimizing the depletion of natural capital while meeting growing needs: relative decoupling. Without specifying as to relative or absolute decoupling, Samarina and Skufina (2015) argue that decoupling is evident in Russian industrial regions like Murmansk, Krasnodar, and Belgorod, due to international pressure on exporting companies to comply with international environmental standards; Svarts et al. (2017) recognize a similar external driver for GE.

Thus, despite some published examples, in-depth analysis on the strength of decoupling, and the measurement of the GE trend overall, is yet to develop among Russian GE scholars.

Our second theme for defining the weakness or strength of GE is the *quality of economic growth*. Here we noted that understanding GE as a new level of economic thinking (Bobylev et al. 2015; Poltarykhin et al. 2018), something qualitatively different from the current economic system (Bahtinova et al. 2019; Matraeva et al 2019) was recognized by the Russian academics. As Zashneva and Mustafava (2013, 34) put it: “the ‘green’ economy is not just a new direction in economic science but rather a new consciousness that penetrates into all spheres of society.” These views clearly indicate thinking along the lines of strong GE. But there were also those who saw GE as a sector of the economy (Gurova 2019) and called for separating GE for society from GE for nature (Bocharnikov 2013)—clearly a weaker interpretation (or misinterpretation) of GE. In sum, we find that the Russian discussion includes thinking from both weak and strong GE traditions. Visions of a qualitatively different economy even had a tinge of the de-growth debate linked to GE, and the strong interpretation seems to dominate slightly.

We find clear recognition of GE as yielding “better” growth than the current economic model, and as making not only environmental but also economic sense. This is logical, given the orientation of the Russian economy to raw material exports, which leaves considerable room for hopes as to the quality of growth. The articles that we examined argue that GE could solve many problems which the Russian government will soon face in any case and has already set about solving: reducing resource dependency and boosting the competitiveness of the economy by modernizing production, which could increase the degree of domestic processing of raw materials to generate jobs, improve the efficiency of material and energy use, and catch up the Western world in technology development (Bobylev et al. 2015; Zashneva and Mustafava 2019; Bokarev et al. 2018; Voikina and Potravny 2018; Svarts et al. 2017). Also mentioned was the Porter Hypothesis of innovation generated by environmental policy being able to compensate the costs of implementing the policy (Nosko 2017). Russia’s current economic system is seen entailing economic and environmental risks due to dependence on the volatile world market prices of raw materials (Bobylev et al. 2015; Nosko 2017) and the declining demand for fossil fuels, the country’s main export product (Svarts et al. 2017; Khovavko 2018). Also the growing technological gap between Russia and the Western world is noted (Poltarykhin et al. 2018; Panova 2017). Thus, as per the stronger version, most of the academics examined here see GE as a suitable guideline for reforming the Russian economy as a whole; however, they also note that the industry is likely to feel threatened by the idea of GE and will oppose it (Vladimirova 2017; Nosko 2017; Svarts et al. 2017). Moreover, the perceived Western dominance of the GE paradigm via international environmental institutions was seen as suspicious (Khovavko 2018) (see below).

Also GE and *the role of the current economic system* emerges as a theme in the Russian literature. Most criticism of GE concerns its proximity to the current economic system: economic growth is deemed inherent in the current system, and thus GE (Vladimirova 2017; Poltarykhin et al. 2018; Ivlev and Ivleva 2015; Rodionova and Lipina 2015), which is seen to legitimize extractive business in Russia (Vladimirova 2017; Bokarev et al. 2018). It is argued that the current political leadership still views the environment and the economy as mutually opposed (Svarts et al. 2017). Similarly to the international critique (e.g. Wanner 2015), the GE concept is criticized for not providing a functional economic theory or a model beyond

the current neoliberal paradigm (Vladimirova 2017; Bokarev et al 2018; Ivlev and Ivleva 2015), and some call for further research on how to accomplish the transition to GE (Khovavko 2018; Vukovic et al. 2019). However, unlike in the international debate, here we note very little questioning as to the feasibility of the GE concept as a solution to environmental and other problems. Win–win or double / triple benefit (economic, social and ecological) views are frequent (Bobylev et al 2015; Poltarykhin et al. 2018; Samarina 2015; Nosko 2017; Samarina and Skufina 2015). Similar to the international debate, the need for new approaches to measuring well-being beyond GDP is noted (Bobylev et al. 2015; Poltarykhin et al. 2018). The “strong” interpretation of GE dominates: the criticism focuses on maintaining the neoclassical welfare economics basis—not on the feasibility of GE as a solution to environmental problems.

Also the *social dimension* of GE features frequently in the Russian materials. Typically included in the definition of GE are maintaining and improving wellbeing, including the reduction of environmental pollution and avoidance of future environmental disasters, seen as major social effects of GE on the Russian population (Ivanova and Levtsenko 2017; Rodionova and Lipina 2015; Poltarykhin et al. 2018; Svarts et al. 2017; Samarina and Skufina 2015). Also social justice is noted as an outcome of GE (Bokarev et al. 2018; Zakharova 2015; Voikina and Potravny 2018). Measures to support science and education, and thus, the development of human capital, are seen as promoting the transition to GE (Bobylev et al. 2015; Kiryushin 2014; Poltarykhin et al 2018; Zashneva and Mustafava 2019; Voikina and Potravny 2018)—a double benefit. However, we found rather little about green jobs, a prominent theme in the international literature—with the exception of Voikina and Potravny (2018), who argue that GE could address such major problems as unemployment and changes in the structure of the labor market. They advocate socially driven criteria for green jobs (decent wages, work safety, career growth opportunities, employee rights), which they expect to emerge in connection with the rational use of natural resources, energy saving, elimination of environmental damage, and better waste management. The range of social issues brought up in this connection indicates the “stronger” interpretation of GE.

Further, we note two themes beyond the coding frame: viewing GE in the context of potential benefits and pitfalls, and the performance of the Russian state administration. Considerations of the *benefits and pitfalls* of planned environmental policies had become central in the Russian environmental debate earlier (see Korppoo et al. 2015; Henry and McIntosh-Sundstrom 2007; Makarov 2016); this pattern of thinking is evident as regards GE. On the one hand, Russia’s vast natural capital is seen as providing potentials for developing GE and as an opportunity to benefit from the country’s natural capital by recognizing Russia as a provider of ecosystem services, an environmental donor (Zashneva and Mustafava 2019; Bobylev et al. 2015; Medvedev 2010; Khovavko 2018). Such a focus might be seen to lie in the weak end of the GE spectrum, because of the emphasis on further ways to benefit for natural capital, perhaps in order to avoid environmental policy and related costs. However, on the other hand, Svarts et al. (2017) dismiss “inexhaustible resources” (oil and gas) and “underutilized forest reserves” as illusions. We note that GE policies are also seen as a space for international engagement (Vladimirova 2017; Zaharova 2015). However, threats are also indicated: GE is seen as an instrument of green protectionism and the reigning emerging economies for the West (Panova 2017; Bokarev et al. 2018; Kiryushin 2014). The green protectionism argument can be placed in the weak end of the GE spectrum, as it does not

recognize the justification for environmentally based trade restrictions. Further, international environmental institutions related to GE are seen as being controlled by Western elites, thereby posing a risk to the sovereignty of resource-rich countries (Khovavko 2018; see also Svarts et al. 2017). The country-specific nature of GE is emphasized as a positive feature (Bobylev et al 2015; Bokarev et al 2018; Porfiriev 2013; Kiryushin 2014; Rodionova and Lipina 2015; Panova 2017)—perhaps due partly to concerns over sovereignty.

Finally, *the role and performance of the state administration* is deemed crucial for launching GE, as civil society has less influence in Russia than in the West (Ivlev and Ivleva 2015; Poltarykhin et al. 2018). Russia's policy goals are considered to be largely in line with the goals of GE, and the policy shift in this direction is recognized (Nosko 2017; Kiryushin 2014; Bobylev et al. 2015; Expert Council 2018). For instance, the “Fundamentals of state policy in the field of environmental development of the Russian Federation for the period up to 2030” (Russian government 2012b), stating that “[t]he strategic goal of the state policy in the field of environmental development is to solve social and economic problems that ensure environmentally oriented economic growth... and...to meet the needs of present and future generations...” has been interpreted as following the principles of GE (Bobylev et al. 2015; Kiryushin 2014; Nosko 2017) but is also criticized for delaying efforts to green the economy until 2030 (Vladimirova 2017). The likelihood of policies actually getting implemented has been questioned: it is argued that policy-makers in Russia may promote GE policy projects but oppose their actual implementation (Vladimirova 2017), and foreign pressure is seen as supporting the introduction of GE in Russia (Kiryushin 2014). State regulation is deemed absent and ineffective as regards GE, and the lack of coordination between state authorities and corporations is seen as impeding any transition to GE (Samarina 2015; Ivanova and Levtsenko 2017; Zashneva and Mustafava 2019; Samarina and Skufina 2015; Tarkhanova et al. 2019); also criticized is the quality of governance in Russia (Samarina 2019; Ivanova and Levtsenko 2017; Nosko 2017; Svarts et al. 2017). Further, it is held that the state administration will require modernization in order to improve environmental standards and compliance with them (Ivanova and Levtsenko 2017; Zashneva and Mustafava 2019; Nosko 2017; Bobylev et al 2015). This is a “strong” GE argument.

## 5. Discussion

The coding frame inspired by the international literature on GE has offered a useful skeleton for the analysis. The themes that we identified were clearly present and central in the Russian academic literature, although the depth and nuances varied somewhat. In this section we discuss the Russian GE discussion in the context of international literature, and then evaluate the depth of environmental awareness in the Russian discussion: can the statements be considered weak or strong as regards GE interpretations? We conclude with remarks on points that seemed underrepresented in the Russian discussion.

We found the Russian academic analysis clearly (and expectedly) less in-depth on all themes than the international literature—but that could well be true for most national-level debates. Further, the problems with implementation of environmental policy in Russia (see also Korppoo et al. 2020) may explain the lack of detailed and specific academic analysis on the various issues and angles of GE. For instance, matters related to the fossil-fuel economy, as well as how the decoupling of GDP from environmental impact is proceeding, have not been

sufficiently covered to inform actual policy-making; at times, this literature seems detached from actual policy results.

We find that GE has seldom been questioned as a path to a more qualitative growth; and these academic researchers were mostly supportive of a transition to GE. Although GE is criticized for not providing an alternative to the dominant neoliberal paradigm, its ability to provide solutions to Russia's problems is questioned much less than in the increasingly critical international literature concerning GE. That is perhaps logical, given the shortcomings of the Russian environmental regulatory system, together with its problematic dependence on the declining fossil-fuel economy in today's emerging low-carbon world: all the same, we noted only few attempts to measure how GE is proceeding in Russia, for instance with calculations on decoupling of environmental impacts from GDP growth. Further, the shortcomings of the Russian state administrative system can help to explain such difference between the Russian and the international interpretations. The role of government interventions driving GE has been discussed in the international literature as well (Hamdouch and Debret 2010). However, as the Russian discussion has focused more on the performance of the state administrative system and its importance in launching GE, given the weakness of Russia's civil society, not so much the role of the state, we interpret it as a separate discussion from that in the international debate. The social angle of GE enjoys recognition in Russia, where GE is rarely criticized for undermining the social aspect. On the other hand, concerns over the impacts of GE on democracy do not feature in the Russian academic GE articles selected for analysis here.

Russia-specific arguments concerning the benefits to be gained from international environmental policy apply also to GE, at least to some extent and in some circles: we can note calls for Russia to play a role as an environmental donor. "Threats" arguments are linked to international-level arguments on the impacts of GE on democracy and equality; here, instead of the national level, the focus is on Russia's role in international decision-making on GE, which is seen by some as threatening the sovereignty of raw material exporters like Russia, due to the dominance of powerful Western elites.

Table 2 summarizes the findings from the Russian academic literature in the context of our analytical framework based on the coding frame. Gray shading indicates the dominance of a strong or weak interpretation of GE in the Russian academic debate.

<TABLE 2>

As to the level of environmental awareness, we find both strong and weak GE approaches in the Russian academic discussion. The strong form is generally dominant, as indicated by Table 2. Most of the arguments under the examined themes fall clearly on the "strong" side, with the exception of the benefits/ threats discussion concerning the role of Russia in global environmental policy. Russian debate concerning environmental policy, which is frequently triggered by global environmental policy and its trends, is often conceptualized in terms of benefits and threats for Russia (see Makarov 2016; Korppoo et al. 2015; Korppoo 2022); the Russian approach to GE seems to follow this pattern. Perhaps the benefits / threats approach could be called a "meta-theme": a theme characteristic of a given society in particular types of situations. If so, such a meta-theme could be expected to occur in certain situations—as here, with Russia's engagement in international environmental policy.

There were also themes that we had expected to find, but occurred rarely, if at all. First, we found surprisingly little mention of Russia's status as a raw-materials exporter, and how this might disincentivize many elements of a green transition (low-carbon vs. the Russian fossil-fuel economy). Many issue-areas beyond this key sector are covered by environmental regulations; however, such policies tend to be of low quality, as Russian academic researchers have noted, and implementation problems give rise to questions about the incentives for introducing such regulation in Russia (see also Korppoo et al. 2020). Another issue generally absent from the materials, but which we had expected to find, is the Arctic and its role in the green transition. Given the vulnerability of the Arctic environment, it is surprising that the Russian academics seem to skirt the question of GE opportunities in this region. Another absence, but one that was more expected, as mentioned above, was the lack of concern as to how GE may influence democracy domestically in Russia.

## 6. *Conclusions*

International comparison shows that, despite the policy measures adopted, the efficiency of energy use has remained low in Russia: in 2016, total final energy consumption per unit of GDP was over four times that of OECD Europe, and some one-third higher than that of China (IEA Data Services: World Indicators). Although the Russian economy remains both energy- and carbon-intensive, simple measures to convert the economy towards GE are readily available. Indeed, most of the world's developed economies had implemented such measures long before the concept of GE was even invented. Thus, Russia has been lagging behind as regards the global green trend and will soon face competitiveness problems in the global market. The academic discussion in Russia as examined here makes the valid point that Russia could benefit from implementing policies which could direct the economy onto a greener and more diverse path, as also indicated by the government.

The fairly strong interpretation of GE found in our study shows that Russian academics do indeed depart from the government line in pushing for greener future for their country. Of course, academic discussions are one thing: real action in the field is something again. It should also be noted that these academics do criticize their government's policies and performance on environmental protection as regards the GE concept. This is how the GE discussion has contributed to the general environmental policy debate in Russia. In the future, Russian analysis on GE will require more in-depth studies of key issue-areas that can enable a real retransition to a greener economy—for instance, on financial measures, the effects of GE policies (of which there are already many in Russia) and the state of the environment and the economy, and green employment.

Our analysis of Russian academic articles shows significant similarities between the international and Russian interpretations of GE, as well as some differences. However, although these academic interpretations of GE seem to fall in the “strong” end of the environmental spectrum in Russia, the “weak” approach is evident in the Russian traditional discussion on benefits and threats related to international environmental cooperation, perhaps especially outside academic circles. This is relevant to whether environmental policy is adopted as a window-dressing for international audiences (should they regain importance once the war in Ukraine ends) and for gaining potential benefits, or is genuinely intended to reduce environmental and social impacts of the economy—or perhaps to enhance the international competitiveness of the economy.

This review of the Russian academic GE discussion indicates genuine interest in improving the state of the environment—hand in hand with the competitiveness of the economy. For the near future, further development towards a GE seems unlikely, due to the geopolitical situation and the sanctions imposed on Russia by the Western countries as a reaction to the Putin administration’s war against Ukraine.

## REFERENCES

Allen, C., and S. Clouth. 2012. *A Guidebook to the Green Economy*. Issue 1: Green Economy, Green Growth, and Low-Carbon Development: History, Definitions and a Guide to Recent Publications. New York: UN Division for Sustainable Development.

Álvarez, G.C., R.M.J. Jara, J.R.R. Julián, and J.I.G. Bielsa. 2010. 2010. “Study of the Effects on Employment of Public Aid to Renewable Energy Sources.” *Revista Procesos de Mercado* 7(1): 13–70. <https://doi.org/10.52195/pm.v7i1.280>

Bergh van den, J. and S. Drews. 2019. “Green ‘Agrowth’: The Next Development Stage of Rich Countries,” in R. Fouquet, ed., *Handbook on Green Growth*, Cheltenham: Edward Elgar, 52–65.

Bina, O. 2013. “The Green Economy and Sustainable Development: An Uneasy Balance?” *Environment and Planning C: Government and Policy* 31(6): 1023–1047.

Boehnert, J. 2016. “The Green Economy: Reconceptualizing the Natural Commons as Natural Capital.” *Environmental Communication*, 10 (4): 395–417.

Borel-Saladin, J., and I. Turok. 2013. “The green economy: incremental change or transformation?” *Environmental Policy and Governance* 23(4): 209–220.

Bowen, A., and S. Fankhauser. 2011. “Editorial. The Green Growth Narrative: A Paradigm Shift or Just Spin?” *Global Environmental Change* 21:1157–1159.

Braun, V. and V. Clarke. 2006. “Using Thematic Analysis in Psychology.” *Qualitative Research in Psychology* 3(2): 77–101.

Braun, V. and V. Clarke. 2012. “Thematic Analysis,” in H. Cooper, ed., *APA Handbook of Research Methods in Psychology*, Vol. 2, Research Designs, 57–71. Washington, DC: American Psychological Association.

Brockington, D. 2012 “Radically Conservative Vision? The Challenge of UNEP's *Towards a Green Economy*.” *Forum* 43(1): 409–422.

Chen, J., T. Hu, and R. Tulder. 2019. “Is the Environmental Kuznets Curve Still Valid: A Perspective of Wicked Problems.” *Sustainability* 11, 4747; doi:10.3390/su11174747.

Chong, D. and J. Druckman. 2007. “Framing Theory.” *Annual Review of Political Science* 10: 103–26.

Dinda, S. 2004. "Environmental Kuznets Curve Hypothesis: A Survey" *Ecological Economics* 49: 431–449.

European Commission. 2020. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Europe's moment: Repair and Prepare for the Next Generation, Brussels 25 May 2020, <  
<https://ec.europa.eu/info/sites/info/files/communication-europe-moment-repair-prepare-next-generation.pdf>>.

Faccar, K., A. Nahman, and M. Audouin. 2014. "Interpreting the Green Economy: Emerging Discourses and their Considerations for the Global South." *Development Southern Africa* 31(5): 642–657.

Foster, J. 2011. "Capitalism and Degrowth: An Impossibility Theorem." *Monthly Review* 62 (8): 26–33.

Fouquet, R. 2019. "Introduction," in R. Fouquet, ed. *Handbook on Green Growth*. Cheltenham: Edward Elgar, 1–19.

Georgeson, L., M. Maslin, and M. Poessinouw. 2017. "The Global Green Economy: A Review of Concepts, Definitions, Measurement Methodologies and their Interactions." *Geo: Geography and Environment*, 4 (1): e00036.

Gibbs, D. 2020. Green Economy. In J-F Morin and A. Orsini, eds., *Essential Concepts of Global Environmental Governance*. Routledge.

Gruber, T. 1995. "Toward Principles for the Design of Ontologies Used for Knowledge Sharing." *International Journal of Human and Computer Studies* 43(5/6): 907–928.

Hamdouch, A. and M. Depret 2010. "Policy Integration Strategy and the Development of the 'Green Economy': Foundations and Implementation Patterns." *Journal of Environmental Planning and Management* 53(4): 473–490, DOI:[10.1080/09640561003703889](https://doi.org/10.1080/09640561003703889)

Henry, L., and L. McIntosh-Sundstrom. 2007. "Russia and the Kyoto Protocol: Seeking an Alignment of Interests and Image." *Global Environmental Politics* 7(4): 47–69.

Hickel, J. and G. Kallis. 2020. "Is Green Growth Possible?" *New Political Economy* 25 (4): 469–486.

IEA. 2015. *Energy Efficiency Market Report 2015*. Paris, OECD/IEA.

Jacobs, M. 2013. "Green Growth." In R. Falkner, ed., *Handbook of Global Climate and Environmental Policy*. Oxford: Wiley Blackwell, 197–214.

Jänicke, M. 2012. "'Green Growth': From a Growing Eco-industry to Economic Sustainability." *Energy Policy* 48: 13–21.



Kaszelan, A. 2017. “Green Growth, Green Economy and Sustainable Development: Terminological and Relational Discourse.” *Prague Economic Papers* 26 (4): 487–499.

Kenis, A. and Lievens, M. (2015) *The Limits of the Green Economy: From Reinventing Capitalism to Repoliticising the Present*. London: Routledge.

Klyuchnikova, E. and V. Masloboev. 2013. “Эколого-экономический анализ региональной политики в сфере обращения с отходами (на примере Мурманской области)” [Ecological and economic analysis of regional policy in the field of waste management (the example of the Murmansk region)]. *Vestnik MGTU* 16(2): 233–241.

Kochtcheeva, L. 2009. *Comparative Environmental Regulation in the United States and Russia: Institutions, Flexible Instruments and Governance*. Albany, NY: SUNY Press.

Korppoo, A. 2022. “Russian discourses on benefits and threats from international climate diplomacy.” *Climatic Change* 170. <https://doi.org/10.1007/s10584-021-03299-3>.

Korppoo, A. 2018. “Russian Associated Petroleum Gas Flaring Limits: Interplay of Formal and Informal Institutions.” *Energy Policy* 116: 232–241.

Korppoo, A. and A. Kokorin. 2017. “Russia’s 2020 GHG Emissions Target: Emission Trends and Implementation.” *Climate Policy* 17(2): 113–130.

Korppoo, A., I. Stensdal, and M. Korsnes. 2020. *Informal Institutions in Policy Implementation: Comparing Low Carbon Policies in China and Russia*. Cheltenham: Edward Elgar.

Korppoo, A., N. Tynkkynen, and G. Hønneland, 2015. *Russia and the Politics of International Environmental Regimes: Environmental Encounters or Foreign Policy?* Cheltenham: Edward Elgar.

Lipsey, R. 2019. “Policies for Green Growth Versus Policies for No Growth: A Matter of Timing”. In R. Fourquet, ed., *Handbook on Green Growth*. Cheltenham: Edward Elgar, 21–29.

Loiseau, E., L. Saikku, R. Antikainen, N. Droste, B. Hansjürgens, K. Pitkänen, P. Leskinen, P. Kuikman, and M. Thomsen 2016. “Green Economy and Related Concepts: An Overview.” *Journal of Cleaner Production* 139: 361–371.

Makarov, I. 2016. “Russia’s Participation in International Environmental Cooperation.” *Strategic Analysis* 40(6): 536–546.

Martinez-Alier, J., U. Pascual, F.-D. Vivien, and E. Zaccai. 2010. “Sustainable De-growth: Mapping the Context, Criticisms and Future Prospects of an Emergent Paradigm.” *Ecological Economics* 69: 1741–1747.

Martus, E. 2017. “Contested Policymaking in Russia: Industry, Environment, and the “Best Available Technology” Debate.” *Post-Soviet Affairs* 33(4): 276–297.

Medvedev, D. 2010. "Экология и экономика не противоречат друг другу. Нормальная экономика – экологичная экономика". Blog post, June 5, 2010, <<http://blog.damedvedev.ru/post/82/transcript>>.

Merino-Saum, A., J. Clement, R. Wyss, and M. Baldi. 2020. "Unpacking the Green Economy concept: A Quantitative Analysis of 140 Definitions." *Journal of Cleaner Production* 242, 118339.

Ministry of Economic Development. 2013. "Прогноз Долгосрочного Социально – Экономического Развития Российской Федерации на Период до 2030 года" [Long-term prognosis of socio-economic development in the Russian Federation until 2030].

Ministry of Natural Resources. 2015. "План деятельности Министерства природных ресурсов и экологии Российской Федерации на 2013–2018 годы" [Action plan of the Ministry of Natural Resources and Ecology of the Russian Federation for 2013–2018]. July 1, N 0180/10. [http://voda.mnr.gov.ru/upload/iblock/6f9/5103\\_plan\\_mpr.pdf](http://voda.mnr.gov.ru/upload/iblock/6f9/5103_plan_mpr.pdf)

Ministry of Natural Resources and Ecology. 2020. О состоянии и об охране окружающей среды Российской Федерации в 2019 году [On the state and protection of the environment of the Russian Federation in 2019]. Government report, Moscow.

Morriss, A., W. Bogart, A. Dorchak, and R. Meiners. 2009. "Green Jobs Myths." University of Illinois Law and Economics Research Paper No. LE09-001 and Case Western Reserve University Research Paper Series No. 09-15, March.

Newell, J. and L. Henry. 2016. "The State of Environmental Protection in the Russian Federation: A Review of the post-Soviet Era." *Eurasian Geography and Economics* 57: 779–801.

OECD. 2011. *Towards Green Growth*. Paris: OECD. <https://www.oecd.org/greengrowth/48012345.pdf>.

Oldfield, J. 2005. *Russian Nature: Exploring the Environmental Consequences of Societal Change*. Burlington, VT: Ashgate.

O'Neill, K., and Gibbs, D., 2016 Rethinking green entrepreneurship: Fluid narratives of the green economy. *Environment and Planning A: Economy and Space*.;48(9):1727-1749. doi:[10.1177/0308518X16650453](https://doi.org/10.1177/0308518X16650453)

Pearce, D., A. Markandya, and E. Barbier. 1989. *Blueprint for a Green Economy: Pearce Report*. London: Earthscan.

Pitkänen, K., R. Antikainen, N. Droste, E. Loiseau, L. Saikku, L. Aissani, B. Hansjürgens, P. Kuikman, P. Leskinen, and M. Thomsen. 2016. "What Can Be Learned from Practical Cases of Green Economy? Studies from five European Countries." *Journal of Cleaner Production* 139: 666–676, <https://doi.org/10.1016/j.jclepro.2016.08.071>

Ploeg van der, R. and C. Withagen. 2013. "Green Growth, Green Paradox and the Global Economic Crisis." *Environmental Innovation and Societal Transitions* 6: 116–119.

President of the Russian Federation. 2021. Presidential Order 76. “Указ о мерах по реализации государственной научно-технической политики в области экологии и климата» [Decree on measures to implement the state scientific and technical policy in the field of ecology and climate]. February 8.

Russian Federation. 2009. Federal Law 261, “Об энергосбережении и о повышении энергетической эффективности и о внесении изменений в отдельные законодательные акты Российской Федерации” [On energy efficiency and energy savings and on introducing amendments to certain laws of the Russian Federation]. November 23. Moscow: State Duma.

Russian Federation. 2014. Federal Law 219. “О внесении изменений в Федеральный закон "Об охране окружающей среды" и отдельные законодательные акты Российской Федерации” [On Amending the Federal Law "On Environmental Protection" and Certain Legislative Acts of the Russian Federation]. July 21.

Russian Government. 2009. Decree 7. “О мерах по стимулированию сокращения загрязнения атмосферного воздуха продуктами сжигания попутного нефтяного газа на факельных установках [On measures to stimulate the reduction of air pollution from associated gas flaring products]. January 8.

Russian Government. 2012a. Report on implementing the principles of sustainable development in the Russian Federation. Russian outlook on the new paradigm for sustainable development. Preparing for “RIO + 20,”  
<https://sustainabledevelopment.un.org/content/documents/1043natrepeng.pdf>.

Russian Government. 2012b. Government Order 2423. “Основы государственной политики в области экологического развития Российской Федерации на период до 2030 года” [Fundamentals of state policy in the field of environmental development of the Russian Federation for the period up to 2030]. December 18.

Russian Government. 2013. Decree 449. “Правительство Российской Федерации, Постановление от 28 мая 2013 г. № 449. О механизме стимулирования использования возобновляемых источников энергии на оптовом рынке электрической энергии и мощности” [On the mechanism of promoting the use of renewable energy in the wholesale market of electric energy and power]. May 28.

Russian Government. 2016. Resolution 1156 “Об обращении с твердыми коммунальными отходами и внесении изменения в постановление Правительства Российской Федерации от 25 августа 2008 г. № 641” [On the management of municipal solid waste and amending the Decree of the Government of the Russian Federation of August 25, 2008, N 641 (as amended on December 15, 2018)]. August 25.

Schultz, C. and I. Bailey. 2014. “The Green Economy and Post-Growth Regimes: Opportunities and Challenges for Economic Geography”. *Geografiska Annaler Series B: Human Geography* 96 (3): 277–291.

- Shenhav, S., 2004. "Once Upon a Time There Was a Nation: Narrative Conceptualization Analysis. The Concept of 'Nation' in the Discourse of Israeli Likud Party Leaders." *Discourse and Society* 15(1): 81–104.
- Smulders, S., M. Toman, and C. Withagen. 2014. "Growth Theory and 'Green Growth'." *Oxford Review of Economic Policy* 30 (3): 423–446.
- Stern, D. 1997. "The Capital Theory Approach to Sustainability: A Critical Appraisal." *Journal of Economic Issues* 31(1): 145–173.
- Stern, D.I. 2004. "Rise and Fall of the Environmental Kuznets Curve." *World Development* 32(8): 1419–1439. doi:10.1016/j.worlddev.2004.03.004
- Stern, N. 2007. *The Economics of Climate Change: The Stern Review*. Cambridge: Cambridge University Press.
- Swyngedouw, E. 2010. "Apocalypse Forever? Post-political Populism and the Spectre of Climate Change." *Theory, Culture and Society* 27(2–3): 213–232.
- UNEP. 2011. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication: A Synthesis for Policy Makers*. Geneva: UNEP.
- Victor, P. and M. Sers. 2019. "The Limits to Green Growth," in R. Fouquet, ed., *The Handbook on Green Growth*. Cheltenham: Edward Elgar, 30–51.
- Victor, P. A., and T. Jackson. 2012. "A Commentary on UNEP's Green Economy Scenarios." *Ecological Economics* 77: 11–15.
- Wanner, T. 2015. The New 'Passive Revolution' of the Green Economy and Growth Discourse: Maintaining the 'Sustainable Development' of Neoliberal Capitalism. *New Political Economy* 20 (1) 21-41.
- Ward, J., P. Sutton, A. Werner, R. Costanza, S. Mohr, and C. Simmons, 2016. "Is Decoupling GDP Growth from Environmental Impact Possible?" *PLoS ONE* 11(10): e0164733. <https://doi.org/10.1371/journal.pone.0164733>.
- World Bank. 2012. *Inclusive Green Growth: The Pathway to Sustainable Development*. Washington, DC: World Bank.
- World Economic Forum. 2013. *The Green Investment Report: The Ways and Means to Unlock Private Finance for Green Growth*. Geneva: WEO. [http://www3.weforum.org/docs/WEF\\_GreenInvestment\\_Report\\_2013.pdf](http://www3.weforum.org/docs/WEF_GreenInvestment_Report_2013.pdf).

## Appendix 1.

### List of Russian articles examined for thematic analysis

- Bahtinova, V., V. Kryukov, and L. Badalyan. 2019. “Зеленая” экономика в России: основные направления реализации” [“Green” economy in Russia: main directions of implementation]. *Bulletin of Contemporary Studies* 1.10(28): 50–56.
- Bobylev, S., O. Kudryavtseva, and Y. Yakovleva. 2015. “Green Economy: Regional Priorities”. *R-Economy* 1(2): 268–279.
- Bocharnikov, V. 2020. “России нужен новый вектор – «зеленая экономика» и природа” [Russia needs a new vector – “Green economy” and nature]. *Socio-economic Geography: Bulletin of the Association of Russian Geographers and Social Scientists* 9(1): 106–113.
- Vokarev, A., I. Yakovlev, and L. Kabir. 2018. ”«Зеленые» инвестиции в России: поиск приоритетных направлений” [Green investments in Russia: Searching for priority areas]. *Financial Journal* 10(1): 40–49.
- Danilenko, L. 2013. “Экологическая политика в России: «зеленая» экономика против рентно-сырьевой” [Environmental policy in Russia: “Green” economy against raw material rent economy], *National Interests: Priorities and Security* 201: 38–47.
- Expert Council on the Long-term Investment Market under the Central Bank of the Russian Federation. 2018. “Green Finance: the agenda for Russia, a diagnostic overview.” Moscow, October 2018. <https://investinfra.ru/frontend/images/PDF/diagnostic-overview-green-finance-the-agenda-for-russia-121118.pdf>.
- Glazyrina, I., I. Zabelina, and L. Faleychik. 2020. “Spatial Heterogeneity of «Green» Economy and Transaction Costs in Forestry”, *IOP Conference Series: Materials Science and Engineering*, 753 082020.
- Gurova, I. 2019. “Иностраннные инвестиции в зеленой экономике” [Foreign direct investment in green economy], *Journal of International Economic Affairs* 9(2): 597–608.
- Ivanova, I. and L. Levchenko 2017. ”«Зеленая» экономика: сущность, принципы и перспективы” [“Green” economy: the essence, principles and prospects]. *Herald of Omsk University*. Series “Economics” 58(2): 19–28.
- Ivlev, V. and M. Ivleva. 2015. “Philosophical Foundations of the Concept of Green Economy.” *Advances in Social Science, Education and Humanities Research* 283: 869–873.
- Khovavko, I. 2018. “О достижениях и провалах экономики природопользования в контексте устойчивого развития [On the achievements and failures of the economy of environmental management in the context of sustainable development]. *Journal ‘Economist’* 4: 31–39.
- Kiryushin, P. 2014. ““Green Economy”: Opportunities and Constraints for Russian Companies.” *Russie.Nei.Visions* 79. Paris: IFRI.

- Matraeva, L., P. Solodukha, S. Erokhin, and M. Babenko. 2019. "Improvement of Russian Energy Efficiency Strategy Within the Framework of 'Green Economy' Concept (Based on the Analysis of Experience of Foreign Countries)" *Energy Policy* 125: 478–486.
- Nosko, P. 2017. "Greening of Economy as a Factor of the Russia's Innovative Development". *Review of Business and Economics Studies* 5(4): 71–76.
- Panova, V. 2015. "Russia in the BRICS: Imperatives for Sustainable Inclusive Development." Draft paper.  
[http://www.nkibrics.ru/system/asset\\_docs/data/5568/7b1a/6272/693b/d165/0000/original/Victoria\\_V.\\_Panova\\_Session7.pdf?1432910618](http://www.nkibrics.ru/system/asset_docs/data/5568/7b1a/6272/693b/d165/0000/original/Victoria_V._Panova_Session7.pdf?1432910618).
- Poltyrkhin, A., A. Alekseev, V. Kudryavtsev, T. Makhanova, O. Voronkova, and H. Aydinov. 2018. "Prospects for the Development of the Green Economy of Russian Federation." *European Research Studies Journal* 21 (4): 470–479.
- Porfiriev, B. 2013. "Green Economy: Realities, Prospects and Limits to Growth." Carnegie Moscow Center, September 2013.
- Rodionova, I. and S. Lipina. 2015. "Зеленая экономика в России: модель и прогнозы развития" [Green economy in Russia: model and forecast of development]. *Fundamental Research: Economic Sciences* 24(2): 5462–5466.
- Samarina, V. 2015. "«Зеленая» экономика России: некоторые вопросы теории и методологии" [Green economy of Russia: some issues of theory and methodology]. *National Interests: Priorities and Security* 287: 2–9.
- Samarina, V. and F. Skufyna 2015. "«Зеленая экономика» горнодобывающих регионов России: факты и тенденции" ["Green economy" of the mining regions of Russia: facts and trends]. *Mining information and analytical bulletin*, 7: 267–272.
- Svarts, E., M. Babenko, P. Bоеv, A. Martinov, A. Knizhnikov, L. Ametistova, and A. Pahalov, 2017. "Глава 9. Российская национальная модель «зеленой» экономики и добровольные механизмы экологической ответственности" [Chapter 9. Russian National Green Economy Model and Voluntary Environmental Responsibility Mechanisms], in S. Bobilev and L. Grigoreva (eds.) Экологические приоритеты для России, [Ecological Priorities for Russia], Analytical Center for the Russian Government, 189–211.
- Svetikov, N. 2018. "Perspectives of Green Economy Development and Place of Russia in that Process". *World Economy: Security Issues*, 1: 73–75.
- Takhanova, E., A. Frieler, and N. Baburina, 2019. "Green Economy in Russia: Leadership and Financial Aspects." *Advances in Social Science, Education and Humanities Research*, Vol. 386, <https://www.atlantis-press.com/proceedings/icsealv-19/articles>.
- Vladimirova, V. 2017. "Politics of the Green Economy in Russia's European North." *Journal of Political Ecology* 24: 296–323.
- Voikina, E. and I. Potravny. 2018. "Green Employment and Labour Market in the Formation of Environmentally Friendly Economy". *St Petersburg University Journal of Economic Studies*, 34 (2): 217–240. <https://doi.org/10.21638/11701/spbu05.2018.202>

Vukovic, N., V. Pobedinsky, S. Mityagin, A. Drozhzhin, and Z. Mingaleva. 2019. “A Study on Green Economy Indicators and Modeling: Russian Context.” *Sustainability* 11(17): 4629.

Zaharova, T. 2015. Зеленая Экономика и Устойчивое Развитие России: Противоречия и Перспективы [Green Economy and Sustainable Development of Russia: Contradictions and Prospects]. *Bulletin of Tomsk State University. Economy*. 30 (2): 116–126.

Zashneva, S. and D. Mustafava. 2019. ““Зеленая” экономика в россии: возможности, проблемы перехода, перспективы” [“Green” economy of Russia: opportunities, problems, growth and regulation], *Kant* 7(1): 32–35.

---

<sup>i</sup> This is the case elsewhere as, for instance, in Finland, but in Russia such a dedicated policy framework is part of the political tradition, which lends political credibility to the issue. For instance, regarding climate change Russia had the Climate Doctrine, and on energy efficiency the ‘State Program: Energy Efficiency and Energy Sector Development’ for 2013–2020.

<sup>ii</sup> In Russia, business financed only 0.29% of gross domestic expenditure on R&D (GERD) as percentage of GDP in 2015, in comparison to 1.48% in the OECD on average, 1.54% in China and 1.79% in the United States. The government financed two-and-half times as much of GERD in Russia (0.76%) than did business, whereas OECD governments financed only 0.62%, China 0.44% and the USA 0.62%—much less than half of what the business sector financed (OECD 2017).