

Implementing the Sustainable Development Goals: Environmental and Resource Efficiency

*Elena Nemtsova*¹, *Tamirlan Magomaev*^{2,*}, and *Emin Magomadov*³

¹North Caucasus Federal University, Pushkin Street, 1, 355017, Stavropol, Russia

²Grozny State Oil Technical University, Kh. Isaev Ave., 100, 364061, Grozny, Russia

³Kadyrov Chechen State University, Sheripova Street, 32, 364024, Grozny, Russia

Abstract. Greening means not only a positive impact on society and the state of the environment through the introduction of green standards in the business processes of an organization hosting a congress or exhibition. Significant cost savings are also possible, which can be achieved through more efficient use of resources and waste minimization. In addition, the rationalization of activities and the creation of a positive and healthy working environment can lead to improved product quality. Environmental quality indicators, participation in the greening of events, the ability of regions or individual venues to host “green” events can also attract environmentally responsible event organizers to further cooperation. In addition, the greening of an event can create a positive informational occasion and increase the prestige of the event itself, as well as the venue. Improving the public image will help expand the circle of participants, involve the public, the media, minimize potential conflicts and provide support from government authorities.

1 Introduction

Climate change, with its implications for humans, ecosystems and agriculture, including extreme weather events, is a truly global issue that can negatively impact human well-being, socio-economic activity and global production [1]. It can be assumed that with the current climate policy of countries and the dynamic industrialization of developing economies, global emissions will continue to increase. Stabilization of atmospheric concentrations of GHGs requires the development and coordination of national and international strategies to minimize the dependence of economic growth on increased emissions of CO₂ and other greenhouse gases [2]. Carbon efficiency indicators measure the relative decoupling between economic activity and air pollution; reflecting the increase in the carbon efficiency of the economy, they help to understand to what extent it is due to domestic policies, and to what extent - the substitution effect. Since reducing emissions in a country can be associated with moving production – and the emissions it generates – abroad, it is not always sufficient to assess measures that are specific to production. Analyzing relevant processes from a demand perspective contributes to the understanding of global environmental problems, and the indicators used to do so help explain changes

*Corresponding author: medici86@mail.ru

driven by industrial policies. In addition to strengthening ecosystems, improving the ecological quality of life and the sustainability of agricultural and food systems, green growth policies provide a range of economic benefits and benefits (OECD 2014a), including [3]:

- Improving the efficiency of production processes and creating new, improved products;
- Innovations and structural changes in the economy leading to the emergence of new sectors, products, services and business opportunities in general and removing the problem of technological deadlock, especially in relation to infrastructure;
- Financial consolidation as a result of (among other things) a review of the composition and efficiency of public-public spending and due to increased revenues through adequate pollution charges;
- Strengthening investor confidence due to greater predictability and stability of public policy on key development and environmental issues;
- Balanced macroeconomic conditions and stabilization of resource prices. Integrating these considerations into public policy is the foundation of green growth.

2 Research Methodology

A policy framework that includes mainly fiscal and regulatory parameters, as well as competition, trade and innovation policies, which, when well designed, promotes the most efficient allocation of resources. Environmental policies that provide further incentives for sustainable use of natural resources and ecosystems and correct existing market distortions. Regardless of the national context and the mix of measures chosen, adequate pollution charges should be central to a comprehensive policy in support of green growth.

In order for businesses and consumers to better respond to price signals, regulation should be improved and communication tools should be widely used, i.e. non-market policies. Unfortunately, in most cases, the value of natural capital is not adequately reflected in prices, and this defect in market mechanisms can have a very negative impact on decisions in the field of natural capital management. Furthermore, education, employment and social protection policies are essential to support green growth, and the coherence and coherence of public policies is a critical success factor [6].

3 Results and Discussions

Indicators can be considered as measurable information (parameters or values derived from parameters) that describes a phenomenon/environment/sphere and has a synthetic value. A composite indicator measures multifaceted phenomena and processes (eg competitiveness, e-commerce, environmental quality) not covered by any single indicator. It is desirable that a composite indicator be based on a theoretical concept/definition that allows one to selectively use individual indicators/variables, combining them and evaluating their relative importance, depending on the multifaceted nature or structure of the phenomenon or process being assessed.

Energy is the basis of the economy, both as an independent sector and as a production factor of any economic activity. The structure of the country's energy supply and the intensity of energy consumption, which change over time, determine the environmental efficiency of the economy and the sustainability of economic development and, therefore, are the most important factors for green growth. In addition, the affordability of energy is one of the conditions for reducing poverty. The environmental parameters of energy production and consumption depend on its source; The main problem facing society in

connection with energy is greenhouse gas emissions, local and regional air pollution. Environmental impacts also include impacts on water quality, land use issues, nuclear fuel cycle risks, and risks related to the extraction, transportation and use of fossil fuels. The development of renewable energy, low-carbon and clean fuel technologies is an important aspect of countries' climate policy and strengthens their energy security. Progress towards green growth can be measured against the energy efficiency of the economy, against national targets for energy intensity and energy efficiency, against the share of renewable energy in energy/electricity supply, and further against the country's international environmental and climate commitments relevant to domestic energy policy [9].

The proposed set of PPPs is based on the experience of the OECD in this area, the experience of other international organizations, member countries and partner countries of the OECD [12]. The gaps remain; some of the selected indicators cannot be measured at present. Thus, the set includes: (a) core indicators and their components or additions to them, and (b) surrogate indicators if the core indicators cannot currently be measured internationally. For effective communication with policy makers, the media and the public, six key, "headline" indicators have been identified that reflect in a balanced way the main aspects of green growth: these are carbon efficiency; material efficiency; multifactorial performance, taking into account the state of the environment; index of natural resources; changes in land status, land use purposes and land cover; impact of air pollution on public health. In terms of the full set of indicators, the proposed list of key indicators may not be definitive.

With regard to well-being, policies should take into account the relative value to the population of the functions and services provided by natural capital relative to other functions, services and goods, and, accordingly, the contradictions and trade-offs that arise from this, which must be assessed and reassessed over time in order to so that society understands the consequences of declining natural capital for present and future generations [5]. The nature of such trade-offs differs from country to country, depending on available technologies, available natural assets, preferences of the population and society; therefore, the policy must be adapted to the local context [4]. Broad support for green growth policies requires that they address the issue of equity and equity from the outset, proposing effective solutions in advance that mitigate the negative social consequences that may result from certain government measures (for example, in connection with the reform of energy subsidies, harmful to the environment). For countries with developing and transition economies, it is especially important to harmonize the goals of green growth and poverty reduction, which requires, among other things, the development of water management and transport infrastructure, the protection of public health from threats caused by environmental degradation [6]. While green growth goals are relevant to all countries, policies and approaches to mainstream this model into daily practice need to be adapted to regional and national contexts and countries' levels of development [11]. The choice of policy solutions and approaches, and their combination, are determined by a number of factors, including, among others, pressure on the environment, market conditions (for example, the share of the shadow economy or the development of financial markets), public administration and regulatory features (for example, lack of capacity to properly develop and policy implementation).

4 Conclusions

The most important factor of green growth is the environmental and resource efficiency of production and consumption and its change in different regions and sectors. Understanding these trends and the conditions that determine them is necessary to monitor the processes leading to the greening of the economy. To measure progress towards green growth, the

ratio of environmental services used in production to output received can be used. Environmental services include natural resources and materials, including energy; In the context of environmental services, pollution and residual products entering the natural ecosystems on which humanity depends - land, water or atmosphere - are also taken into account. Trends in the decoupling of resource consumption from economic growth, including sectoral growth, need to be monitored. In this area, the OECD uses green growth indicators related to:

- Carbon and energy efficiency, which characterizes, among other things, the impact on the climate system and the global carbon cycle, as well as the environmental and economic efficiency of the use of energy resources in production and consumption. The indicator assesses the effectiveness of policies designed to stimulate low-carbon technologies and clean energy.

- Resource efficiency, which characterizes the environmental and economic efficiency with which natural resources and materials are used in production and consumption. The indicator assesses the effectiveness of policies in support of resource efficiency and sustainable material resource management in all sectors. Improving resource efficiency minimizes the amount of resources consumed by the economy and reduces the production of waste. The most important resources and materials are mineral resources (metal, industrial, construction minerals), biotic resources (food, feed, forest), water, nutrients (the latter linking the nutrient cycle and food production, among others).

- Multi-factor performance adjusted for environmental factors. This indicator assesses the importance of environmental services in productivity growth (including the use of natural resources as a factor of production and as a regulator of pollution-absorbing ecosystems). Currently, the indicator is not fully measured and is not considered in more detail in this paper. When using most indicators related to the environmental and resource efficiency of an economy, an industry breakdown according to the International Standard Industrial Classification (ISIC)/Statistical Classification of Economic Activities in the European Community (NACE) is strongly recommended, if possible with available data.

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