

duction. Bioeconomy is privileged area of research with unprecedented multi-faceted insights to drive circular economy and commercialisation of sustainable solutions to our today challenges. Blue bioeconomy industries have taken advantage of the growing opportunities provided by sustainable use of marine resources in development and commercialisation of sustainable food innovations. Oceans contribute about 81,5 million tons of global fisheries production annually. The business and developments of the blue bioeconomy and clean-tech are growing. Key sectors in this respect include business activities based on making use of aquatic biomass, water-based tourism, the value chain of fisheries and growing algae for food and fuel. Seizing opportunities and competence building of food innovation provided by blue bioeconomy requires a thorough understanding of challenges as well as competitive landscape of potential substitute alternatives. In addition, successful commercialisation of novel foods entails a favourable overall consumers' response. As most of the firms are still experiencing and trailblazing in this matter, the current challenge is therefore to learn how to benefit from blue bioeconomy's potential for sustainable food solutions and its success on the markets. In the last decade, research interest has increased towards research and development of bio-based innovation. Yet, a clear roadmap for the future of blue bioeconomy food innovation and a meta-review of how far the field has come remains providential. Therefore, through a systematic literature review, we aim to identify research trends and gaps in the field, understanding of obstacles and opportunities, and therein provide clear propositions to guide future research. Based on a systematic review, over articles published in peer-reviewed journals retrieved from Web of Science® and Scopus® databases are descriptively analysed, with results synthesized across current research trends. The originality of the paper is imbedded in the inclusive search and systematic review of extant studies in this field, which have not been unified heretofore. Implications for advancement of knowledge are embedded in the purposefully outlined theoretical, contextual and methodological perspectives, providing future research directions for scrutinizing blue bioeconomy capability in sustainable food development.

HOMELESS ANIMALS AS ENVIRONMENTAL PROBLEM OF THE CITY OF ZHODINO. POSSIBILITIES OF SOLVING THIS PROBLEM

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The article is devoted to the problem of homeless animals in Zhodino. A description of the research project organized with the students of the school is given. The goal was to study the influence of homeless animals on the environment and life of the people of the city of Zhodino, as well as to search for a humane solution to the problem, to provide possible assistance to homeless animals. Based on the results of the project, the installation of "Warm Houses" is one solution to this problem.

Keywords: warm houses, care, interactive map of homeless animals, youth, questioning, volunteer movement, caring for animals, veterinary clinics, ecological project.

The problem of the existence of stray animals is one of the urgent problems in the world and has adverse environmental and social consequences. This problem also exists in the city of Zhodino - one of the young and fast-growing cities of Belarus. With the growth of the population, the number of abandoned animals which we meet in the streets of the city is increasing. The estimated population of stray dogs in Belarus fluctuates from 3 thousand to 10 thousand individuals. Stray animals adapt to life in the city, unite in packs that have a complex organization and territorial structure.

The purpose of the research work "Ways of Solving the Ecological Problem with Homeless Animals in the City of Zhodino", which we conducted with students, was to study the impact of homeless animals on the environment and the lives of people in Zhodino; Search for a humane solution to the problem of versatile assistance to homeless animals.

Research objectives: to identify and map the places of maximum concentration of stray animals in the city of Zhodino and its environs; identify the main causes of the appearance and spread of stray animals in the city of Zhodino and its outskirts; to predict possible solutions to these problems; to form a conscious attitude to the problem of stray dogs among people around and personal participation in its solution; organize the activities of parents and design a realizable "Warm House" project with minimal economic costs; to go out with this project for its implementation to the Management of the Housing and Communal Services of our city. Wintering stray animals are not always visible to people, because most of them choose basements as shelters. Under the circum-

stances, we began to implement the creation of a project of warm houses for homeless animals. This required the participation of parents, who happily came to help us. Thus, a project that needed to be implemented was created.

We came up to the management of the housing and communal services of Zhodino with a proposal about the possibility of implementing the project at the city level. We received a positive response and the promise to establish several "Warm houses" in the places of the largest concentration of stray animals using our interactive map. In the process of implementing the project, we obtained the following results: we determined places of the greatest location of homeless animals (at least 4 per 10 square meters); marked the places of the largest concentration of stray animals on the map of Zhodino; identified the possible reasons for their appearance; compiled environmental passports of the studied territories and carried out volunteer actions to help shelters of homeless animals in Zhodino: "Our younger friends", "Let's help homeless animals", "Good heart"; designed a "warm house" for homeless animals.

Our studies have shown that the technical implementation of this project will help to solve the problem of homeless animals in our city for the following reasons: bright, fitting into the architecture of the city, warm houses will attract people to care for these animals; the problems of homeless animals will not be hidden and there will be more money and volunteers who will be responsible for stray animals; since we mean that animals will be fed near these houses, the registration of sick and healthy animals will be easier; there will be more healthy animals, which increases the chance that they will be taken to the family.

BIBLIOGRAPHY

1. Рябов, Л. С. Бродячие и одичавшие собаки в городской среде / Л. С. Рябов // Бюлл. МОИП. Отд. биол. – М., 1979. – Т. 84, вып. 4. – 52 с.
2. Новиков, Г. А. Основы общей экологии и охраны природы / Г. А. Новиков. – ЛГХ, 1979. – 58 с.
3. Вагнер, Б. Б. Животные Родного края / Б. Б. Вагнер, Н. Ю. Захарова. – М.: "Лицей", 2003. – 56 с.
4. Краснов, Ю. Д. Ласковые домашние убийцы / Ю. Д. Краснов // Охота. – 2005. – № 9. – 24 с.

OVERVIEW OF ACHIEVING SOME SDG 9 INDICATORS IN RUSSIA: THE DYNAMICS OF CARBON DIOXIDE EMISSION PER ADDED VALUE UNIT

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The article is devoted to the assessment of one of the indicators for achieving SDG 9 "Industrialization, innovation and infrastructure" – CO₂ emissions per unit of value added. The causes of volume changes are analyzed, the indicator values are compared for Russia and for countries that have the largest economies in the world.

Keywords: sustainable development goals (SDG), SDG 9, industrialization, innovation, infrastructure, carbon emissions per unit of value added.

In September 2015, the UN Summit accepted the "2030 Agenda for Sustainable Development," which outlines 17 Sustainable Development Goals (SDG). Over the 15 years to come, these goals must be achieved [4]. Goal 9 includes building resilient infrastructure, promoting inclusive and sustainable industrialization and innovation. Sustainable infrastructure that promotes economic growth and social stability will enable cities to better resist climate change. The implementation of SDG 9 should be ensured by the solution of 8 tasks included in it. Moreover, each of the tasks is characterized by certain indicators that allow us to assess the level of achievement of the SDG. For example, task 9.4 provides for the modernization of infrastructure and the re-equipment of industrial enterprises by 2030, which will make them sustainable by increasing the efficiency of resource use and the wider use of clean and environmentally friendly technologies and industrial processes. [4] Evaluation of the achievement of this goal is made through the indicator "9.4.1. CO₂ emissions per unit of value added".

One of the key provisions of the Decree "On National Goals and Strategic Tasks of the Development of the Russian Federation until 2024" [3] is Russia's entry into the five largest economies in the world (USA, China, Japan, Germany, Great Britain), therefore, the dynamics of indicator 9.4.1 in the Russian Federation was analyzed for the countries of the "five". According to the UN Statistics Division [1], Germany, Japan, the United Kingdom and the United States are characterized by a steady decline in carbon dioxide emissions. At the same time, Germany has the smallest volumes of emissions, already in 2000 they amounted to 0,16 kg. Great Britain reached such an indicator only in 2016. The United States slightly approached the previously indicated values (0,2 kg in