Sustainable Economic Development And Ecological Innovations

Uktam Jiyanov

Senior Lecturer, International Islamic Academy of Uzbekistan
Phone: 946626187, E-mail: uktam.jiyanov87@gmail.com

ABSTRACT

The role of ecological innovations in sustainable economic development is considered in the article. In addition, the existing opportunities and problems in Uzbekistan in terms of economic development and ecological innovations were analyzed.

Keywords: Economic development, ecological innovations, market economy.

Environmental protection, rational use of natural resources, the transition from a resource-intensive economy to a "green economy" largely determine the priority areas for the economic and social development of any state in the 21st century.

In the implementation of these tasks, an important place is given to the development of research and development work (R&D) and innovation policy.

Sectors of the world economy with a high level of investment in R&D showed better dynamics than others. Over the past decades, the growth rate of high-tech products is 50% higher than that of medium-tech products and services and 100% of low-tech products and services [1].

High-tech products are especially significant in developed countries. Thus, in some developed countries, the share of these products in total exports reaches 40% [2]. In total, over the first 10 years of the new millennium, R&D spending almost doubled, amounting to $1.276 billion in 2010. The participation of large transnational corporations in this process is especially great. Thus, Microsoft spent $9 billion on R&D in 2012, IBM - $6.3 billion, Intel - $8.4 billion, General Motors - $8.1 billion[3]. Investments in the People's Republic of China grew most dynamically - here the annual increase in investment in R&D was 22% [4]. Largely thanks to these efforts, China is turning into a world innovation leader. This is evidenced by the data presented in the report "China Science and Technology Statistics 2014": the share of R&D spending in the country's total GDP increased from 1.47 in 2008 to 2.09% in 2013.

As world experience shows, the task of carrying out structural reforms in the country with a transition to a green economy in the course of their implementation is possible and should be based on a set of environmental innovations.

The transition to a green economy with a sustainable comprehensive (inclusive) growth model will ensure the implementation of environmentally oriented growth based on the introduction of environmental innovations aimed at radically changing the structure of the energy balance with an increase in the share of renewable energy sources in it, the implementation of measures to save resources and improve energy efficiency.

The priority areas for the implementation of such a policy should be the removal of barriers that block the country's

transition to an innovative environmentally oriented development trajectory.

A number of works are devoted to the study of the factors that have the most significant impact on the implementation of the innovation model. Thus, J. Schumpeter spoke about the possibility of implementing the push of new knowledge ("knowledge-push") and the growth of inventions, the problems of stimulating innovations from the demand side ("demand-pull") were noted in work [5].

M. Porter [6] paid considerable attention to the forms of stimulating demand for innovations that the state can offer, creating the necessary conditions for the dissemination of new technologies and products.

He singled out the following number of ways in which the government influences demand conditions for specific industries: government procurement, regulation of products and processes as a system of standards, monitoring the market structure of buyer industries, stimulating early and deferred demand.

The recommendations of the OECD 2012 [7] were a generalization of the proposals put forward by experts to support the demand for innovation using a variety of tools. In it, special attention was paid to the role of innovative demand in connection with the so-called "innovation paradox" ("innovation paradox"). This is due to the fact that in a number of OECD countries, despite constant efforts to support the effectiveness of innovations (including by stimulating innovative proposals with state support for higher education and research), in practice, there was a low level of innovativeness of the economy.

The implementation of environmental innovation policy is largely determined by the presence of climate change as well.

In the OECD report "Science, Technology and Industry Outlook. 2014"[8] highlights that since the market does not directly quantify greenhouse gas emissions, incentives to reduce them through improved technology are very limited. In general, even when these new green technologies are weak in market incentives for the environmental benefits of their introduction, demand for them is low.

Under these conditions, enterprises are not interested and have no incentives to invest in the production of appropriate environmental protection measures and the introduction of such equipment.

To this end, important instruments of environmental policy (environmental policy mix) are: environmental standards and taxes on hydrocarbon raw materials, payments for negative environmental impacts, trading in greenhouse gas emissions permits, insurance of environmentally hazardous production facilities, etc.

In order to maintain demand for eco-innovation, it is important to ensure the implementation of measures and instruments, which for the case of green innovation includes measures such as public procurement, regulatory measures, environmental standards system, etc. This practice is often used in foreign countries. Australia's Clean Technology Innovation Program is focused on supporting innovative clean technologies and related services, and reducing greenhouse gas emissions. In Belgium, the Action Plan on Procurement of Innovation (PoI) aims to address environmental issues through public procurement of eco-innovations. In Spain, the Spanish State Innovation Strategy applies innovation policy tools to selected markets and sectors of the economy, including the green economy, internet government, science, tourism, and information and communication technology (ICT). For these markets, innovation is supported through public procurement, which is implemented in the form of public contracts and special contracts for a sustainable economy with the targeted formation of a regulatory framework for these contracts[9].

In Italy, as part of relevant initiatives, the National Revolving Fund for Green Job was established in 2012 to stimulate private and public investment in a green economy, with a focus on supporting employment among youth, small and medium-sized businesses[10].

Thus, an important condition for the successful implementation of the green growth

strategy is its reliance on eco-innovation. International experts have developed recommendations on the composition of tools that support the demand for environmental innovation, which can resolve the so-called "innovation paradox". The following are recommended as the main instruments of environmental innovation policy: public procurement, regulatory measures, a system of environmental standards, institutions for the formation and support of leading markets (markets for alternative energy, organic food, etc.), public-private partnerships and network structures.

An analysis of the measures implemented in the country to support the demand for environmental innovations shows the purposefulness of the efforts of regulatory authorities in this direction in recent years, especially with regard to legal regulation.

In Uzbekistan, one of the most important tasks of deepening economic reforms is to improve environmental legislation and the regulatory and methodological framework in the field of environmental protection, environmental education and education for sustainable development, as well as the promotion of environmental knowledge.

The Law of the Republic of Uzbekistan "On Nature Protection" establishes the legal, economic and organizational framework for the conservation of environmental conditions, rational use of natural resources. Its most important goal is to ensure a balanced harmonious development of relations between man and nature, the protection of ecological systems, natural complexes and individual objects, guaranteeing the right of citizens to a favorable environment.

Relations in the field of nature protection and rational use of natural resources in the Republic of Uzbekistan are regulated by this Law, as well as land, water, forestry legislation, subsoil legislation, protection and use of atmospheric air, flora and fauna, other legislative acts of the Republic of Uzbekistan (Art. 1 of this Law).

Article 33 of the Law establishes the economic mechanism for ensuring the protection of nature: the introduction of special taxation of enterprises, institutions, organizations for the use of environmentally hazardous technologies and the implementation of other environmentally hazardous activities; tax, credit and other benefits provided to enterprises, institutions and organizations, as well as individuals when introducing low-waste and resource-saving technologies that have an environmental and nature restoration effect.

The Republic of Uzbekistan has developed a Program and Concept “On the development of environmental education, training and retraining of environmental personnel, as well as the prospects for improving the system of advanced training in the Republic of Uzbekistan”, approved by a joint Decree of the Ministry of Higher and Secondary Specialized Education, the Ministry of Public Education and the State Committee for Nature Protection of the Republic of Uzbekistan for No. 242/33/79 dated November 7, 2005. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated May 27, 2013 No. 142 "On the Action Program for Environmental Protection of the Republic of Uzbekistan for 2013-2017".

These measures contribute to achieving a guaranteed level of environmental quality, ensuring the rational use of natural resources, improving and implementing effective economic methods of environmental management, developing sectors of the economy taking into account environmental priorities and creating conditions conducive to achieving sustainable development of the country, including through the development and implementation a set of measures to introduce eco-innovations.

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