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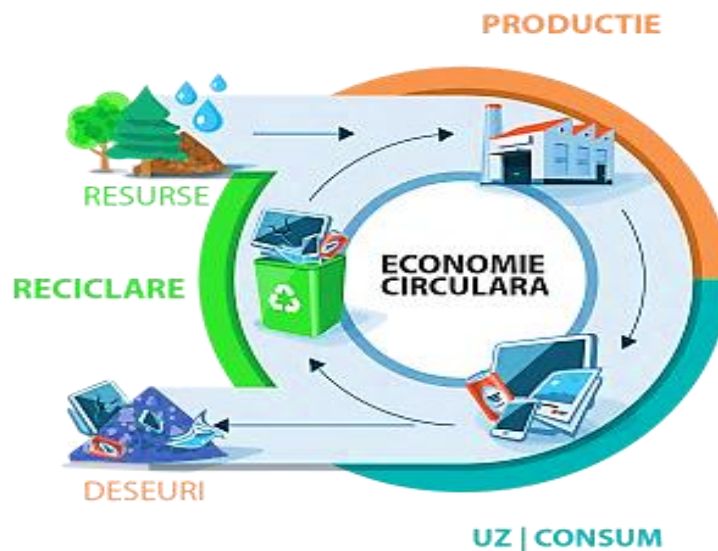


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**The Sustainable Development Goals are based
on encouraging responsible consumption and
promoting the circular economy**

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Introduction

The Republic of Moldova's efforts to promote sustainable consumption and production involve initiating a transition towards sustainability at the level of public policies, the business and the behaviour of the population.

Reflecting the country's development over the past two decades, the National Development Strategy "European Moldova 2030" (hereinafter - NDS "European Moldova 2030") outlines a vision that encourages industries and businesses to adopt production practices that optimise the use of resources and to take collective responsibility for minimising waste and toxic pollutants. By creating synergies and actively involving all parties in the production-consumption cycle, Moldova aims to protect natural resources and reduce the negative environmental impact of economic development.

To realise this vision, significant progress is essential in improving the population's quality of life by transitioning to a circular economy, which promotes recycling over the current linear model. This circular model offers significant economic and social benefits: it drives economic growth, fosters innovation, creates new jobs, increases incomes, and ensures a healthier environment for current and future generations.

These strategies support the strengthening of economic resilience and energy security by reducing dependence on fossil fuels and promoting renewable energy sources. Furthermore, adopting circular economy principles can decrease reliance on limited natural resources and lower production costs through more efficient use of materials.

Decoupling economic growth from resource use and transitioning to circular systems of production and consumption are essential to achieving climate neutrality by 2050.

The development of the circular economy will also contribute to the implementation of the provisions of the Environmental Strategy for 2024-2030, approved by Government Decision No. 409/2024, which includes General Objective 7: "to reduce greenhouse gas emissions by 70% by 2030 compared to 1990 in the unconditional scenario (or by 88% in the conditional scenario), ensuring Moldova's contribution to achieving climate neutrality by 2050 and enhancing the resilience of economic sectors to climate change".

The imperative to achieve the goal of climate neutrality by 2050 is regulated in paragraph (1) of Article 1 of Law No. 74/2024 on climate actions.

It is worth noting that Moldova is among the countries most vulnerable to climate change, with an average annual economic loss of 2.13% of GDP. A transition to a circular economy is expected to yield positive benefits in terms of GDP growth and job creation, with the implementation of ambitious circular economy policies potentially increasing Moldova's GDP by 0.5% by 2030. To reduce vulnerability to climate change, the waste sector has the potential to achieve emissions reductions of 15-20% by implementing recycling measures and recovering material and energy from waste. These targets can be achieved by actively applying the 'waste hierarchy' principle and transposing the European Union's circular economy directives into national legislation. Half of all global emissions are linked to production, and these can be reduced by 30% through circular economy measures.

A transition to a resource-efficient, circular development model—one that reduces waste before it is generated and treats waste as a valuable resource—is essential. Actions taken in the waste management sector will also have an impact on other sectors, such as energy or industry.

In line with EU directives, recycling offers significant economic and social benefits: it generates economic growth, fosters innovation, creates jobs, and ensures the availability of critical resources. Recycling is a major priority within European and global policy for transitioning to a circular economy based on recycling, as opposed to the existing linear economy in the Republic of Moldova, thereby creating a healthy environment for present and future generations.

1. The particularities of nationalising the Sustainable Development Goals in the context of the Republic of Moldova

1.1 The formation of the Sustainable Development Concept

The term "sustainable development" became widely known after the United Nations International Conference on Environment and Development in Rio de Janeiro in 1992, commonly known as the "Earth Summit".

The event led to the development of several international conventions focusing on climate change, biodiversity and combating deforestation. Additionally, Agenda 21, also known as the Agenda for Sustainable Development, was established as a global plan to promote sustainable development. Ten years after Rio Summit, in 2002, the World Summit on Sustainable Development was held in Johannesburg, where Agenda 21, originally adopted in Rio, was reaffirmed as a key instrument for advancing global well-being. Focusing on local implementation, Agenda 21 encourages broad public participation in finding a balance between economic development, social equity and environmental protection. Today, the concept of sustainable development is based on three main pillars: economic development, social progress and environmental protection, with a view to the well-being of future generations.

In one of the documents adopted at the Rio de Janeiro Conference - the Declaration on Environment and Development - global environmental issues were addressed from two perspectives:

- a) the level of consumption of biosphere resources, which determines the favourable (currently unfavourable) ecological state of the planet, has increased rapidly. However, the permissible level of impact on the biosphere, beyond which life on Earth could be endangered, has not yet been definitively established.
- b) the balance between the level of consumption of biosphere resources and the growing population is unbalanced. The limited and degraded resources of the biosphere cannot meet the needs of the planet's growing population.

In December 1992, the UN General Assembly established the United Nations Commission on Sustainable Development. The creation of the Commission underscored the continuing global commitment to the principles and goals established in Rio de Janeiro in 1992 and was an important step in strengthening international efforts to promote development that respects the balance between the economic, social and environmental needs of the planet. The United Nations has assumed a leading role in coordinating global action for sustainable development, ensuring that progress towards this goal is systematically monitored and that the recommendations of the Earth Summit are effectively implemented.

On 25 September 2015, at the 70th session of the UN General Assembly, world leaders adopted a new global framework for sustainable development, the 2030 Agenda for Sustainable Development (hereafter - 2030 Agenda), with the Sustainable Development Goals (SDGs) at its core.

1.2. The European Union consensus on Sustainable Development

Sustainable development was established as a key policy objective of the European Union in 1997, when it was included in art. 3(3) of the Maastricht Treaty on European Union. In an important subsequent step, the Göteborg European Council in 2001 formalised the adoption of the European Union's Sustainable Development Strategy (SDS), marking a strong commitment to promoting sustainable growth. This strategy was later enriched with an external component in Barcelona in 2002, emphasising the EU's commitment to sustainability not only within its borders but also in its external relations.

Between 2014 and 2019, the European Commission approved its strategy for implementing the Sustainable Development Goals (SDGs) through a series of key policy documents. These included a communication entitled "Next steps for a sustainable European future"¹, which set out the strategic direction for integrating sustainable development principles into Europe's long-term vision. A second document, a policy paper entitled "Towards a sustainable Europe by 2030", provided an in-depth analysis and a set of recommendations to guide the EU on the path to sustainability, highlighting the key steps needed to achieve the ambitious goals set for 2030. Furthermore, to underline its commitment in external relations, the Commission adopted the European Consensus on Development in 2017², an agreement that reaffirms the unity and solidarity of EU member states in promoting sustainable development globally. These documents

¹ COM(2019) 22 of 30 January 2019. <https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX:52016DC0739>

² European Consensus on Development 'Our World, our Dignity, Our Future' (8 June 2017), Official Journal of the European Union, C 210, 30 June 2017. https://www.consilium.europa.eu/media/24004/european-consensus-on-development-2-june-2017-clean_final.pdf

reflect a strong commitment by the European Union to position itself at the forefront of global efforts for sustainable development, highlighting a strategic and coordinated approach both domestically and in its external actions.

From a regional perspective, similar commitments were expressed in the declarations of the Eastern Partnership Summit in Warsaw in 2011 and the Vilnius Summit in 2013. At these meetings, participants from the European Union and the Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine) recognised the benefits of mutually beneficial cooperation in promoting a green economy. As a result, the EaP GREEN initiative was launched to support the Eastern Partnership countries in adopting effective national strategies for green economic growth. The initiative aims to promote economic and sustainable development while ensuring that natural resources continue to provide essential ecological services for the well-being of society.

In line with global political directions, the European Commission is adapting its economic coordination mechanism to incorporate the SDGs within the framework of the European Green Deal³, with the goal of transforming Europe into the first climate-neutral continent. This ambitious endeavor will be achieved while simultaneously promoting equality and a fair transition, ensuring that all citizens benefit and that no one is left behind. To meet these objectives, it is essential to mobilize all stakeholders, including authorities, civil society representatives, the private sector, academia, and the general public.

The European Green Deal is the EU's flagship strategy for developing a sustainable economy that is more resilient, secure, and healthier, with the ultimate goal of achieving climate neutrality by 2050. To achieve this goal, decoupling economic growth from resource consumption and adoption circular production and consumption systems are essential. In March 2020, the European Commission launched a revised Circular Economy Action Plan⁴, introducing new initiatives for all stages of the product life cycle. This Action Plan aims to modernise and transform the EU economy while ensuring environmental protection.

The new Circular Economy Action Plan for 2020 focuses on the entire product life cycle, from design and production to consumption and waste management. It targets key sectors such as electronics, batteries and vehicles, packaging, plastics, textiles, construction and food.

The European Strategy for Plastics in a Circular Economy was launched in 2018 to address specific issues related to plastic pollution, with clear targets for recycling plastic packaging and reducing the use of single-use plastics.⁵

1.3 Moldova's political commitment to Agenda 2030

The 2030 Agenda represents an ambitious commitment for the Republic of Moldova to address the most pressing challenges facing the world today. As a member state of the United Nations (UN), the Republic of Moldova has expressed its commitment to the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda, adopted by UN General Assembly resolution A/RES/70/1. The 2030 Agenda balances the three dimensions of sustainable development - economic, social and environmental - with universal applicability to all countries, regardless of their level of development and priorities. To be effective, the 2030 Agenda must be adapted to each country's specific priorities and context (nationalised), while the principle of "leaving no one behind" applies both domestically and globally.⁶

The NDS "European Moldova 2030", approved by Law No. 315/2022⁷, represents a strategic adaptation of the Sustainable Development Goals (SDGs) to the unique context of the Republic of Moldova, highlighting a deep commitment to sustainability and inclusion. This national initiative aims to effectively address the country's specificities and priorities by integrating the SDGs into a public development policy document, covering essential aspects such as strengthening institutions, promoting inclusive economic growth, combating poverty, promoting access to quality education and health services, protecting the environment and ensuring gender equality.

³ Communication from the Commission – The European Green Deal COM/2019/640. <https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX:52019DC0640>

⁴ Communication from the Commission – Closing the Loop – An EU Action Plan for the Circular Economy <https://eur-lex.europa.eu/legal-content/RO/TXT/HTML/?uri=CELEX:52015DC0614&from=SV>

⁵ The European Strategy for Plastics https://environment.ec.europa.eu/strategy/plastics-strategy_en

⁶ Natalia Zamfir. Particularitățile naționalizării obiectivelor dezvoltării durabile în contextul Republicii Moldova. Conferința "Integrare prin cercetare și inovare" Chișinău, Moldova, 7-8 noiembrie 2020. https://ibn.idsi.md/vizualizare_articol/114134

⁷ Official Gazette Nr. 409-410 din 21.12.2022. https://www.legis.md/cautare/getResults?doc_id=134582&lang=ro

The NDS "European Moldova 2030" aims to translate global goals into a set of specific actions and policies applicable at the national level, ensuring harmonious and sustainable development in its economic, social and environmental dimensions. The strategy also emphasises the crucial importance of partnerships between government, the private sector and civil society, recognising the need for cross-sectoral cooperation to achieve these ambitious goals.

Furthermore, the European Moldova 2030 NDS includes a robust framework for monitoring and evaluating progress, allowing for real-time adjustments to policies and interventions to keep Moldova on the most direct path to achieving the SDGs. This strategic approach demonstrates Moldova's commitment to building a more prosperous, equitable and sustainable future for all its citizens, and stands out for its comprehensive and forward-looking vision.

The NDS 'European Moldova 2030' addresses the nationalisation of the Sustainable Development Goals (SDGs) through a number of features that reflect the specific context of the Republic of Moldova, adapting global goals to national realities and priorities. These features demonstrate how the strategy combines global aspirations for sustainability with the country's unique needs and opportunities.

The main features of this nationalization include the following objectives:

1. **General Objective 1: Increasing income from sustainable sources and mitigating inequalities.**
2. **General Objective 2: Improving living conditions.**
3. **General Objective 3: Ensuring appropriate and quality education for all throughout life.**
4. **General Objective 4: Elevating the level of culture and personal development.**
5. **General Objective 5: Improving the physical and mental health of the population through the active contribution of a modern and efficient healthcare system that meets the needs of every individual.**
6. **General Objective 6: Establishing a solid and inclusive social protection system.**
7. **General Objective 7: Ensuring efficient, inclusive, and transparent governance.**
8. **General Objective 8: Building a fair, incorruptible, and independent justice system.**
9. **General Objective 9: Promoting a peaceful and secure society.**
10. **General Objective 10: Ensuring a healthy and safe environment.**

The operationalization of these objectives is achieved through the establishment of tangible targets across all relevant dimensions of the concept of quality of human life.⁸

2. Sustainable Development Goals relevant to achieving a circular economy

2.1 The evolution of the circular economy concept and its correlation with the SDGs

The concept of a circular economy has historical roots in different periods and cultures, where practices of reuse and recycling were intuitively implemented. However, the explicit formulation and popularisation of the idea of a circular economy began to take shape in the 20th century.

The idea of a modern society built around nature's circular systems first appeared in economist Kenneth Boulding's 1966 essay "The Economics of the Coming Spaceship Earth". In it, Boulding described the urgent need to move from an "open economy" of resource extraction, production and careless consumption to a "closed earth" - a cyclical economic system that conserves and maintains resources by creating products that never wear out.⁹

The economist Walter Stahel proposed the concept of a "regenerative economy" in the 1970s, emphasising the need to move from a linear economic model that follows the path of extraction-production-consumption-waste to one that regenerates and revalues resources in a continuous cycle. This model focuses on maintaining the value of products, components and materials for as long as possible, encouraging reuse, remanufacturing and recycling to reduce waste and conserve natural resources.

In the 1990s, industrial ecology, now a widely practiced field of environmental science, was promoted by strategist Hardin Tibbs, who proposed that economies should be built around a "continuous cyclical flow of materials", with the outputs of one industrial system used as inputs for another.¹⁰

The circular economy is a revolutionary economic model that aims to eliminate waste and pollution through design, promoting a continuous cycle of product and material reuse at the highest possible

⁸ Law no. 315/2022. Official Gazette Nr. 409-410 din 21.12.2022.

https://www.legis.md/cautare/getResults?doc_id=134582&lang=ro

⁹ Maria OLEINIUC. Aliona DODU. Economia circular versus economia verde.

https://ibn.idsi.md/sites/default/files/imag_file/169-173_31.pdf

¹⁰ Maria OLEINIUC. Aliona DODU. Economia circular versus economia verde.

https://ibn.idsi.md/sites/default/files/imag_file/169-173_31.pdf

level of value. This model is not limited to reducing waste; it also promotes the regeneration of natural resources in an efficient and sustainable process. In a circular economy, products are designed to be durable, repairable, reusable and recyclable, ensuring that they retain their value over the long term and reduce their negative impact on the environment.

Taking into account the lessons learned from the country's development trajectory over the past two decades, the Waste Management Strategy in the Republic of Moldova 2013-2027¹¹ proposes a vision of encouraging industries and businesses to adopt resource-efficient production and share responsibility for eliminating waste and toxic pollutants. The synergy and participation of all actors in this production-consumption chain will help save and conserve natural resources and reduce the environmental damage caused by economic growth.

At the national level, an important step in achieving the SDGs, which will support the development of the circular economy, was taken with the adoption of Government Decision No. 495/2024. This decision approved the Program for Promoting the Green and Circular Economy in the Republic of Moldova for the period 2024-2028¹², being the first public policy document dedicated to supporting the adoption of green and circular economy principles in the country.

The implementation of this programme has contributed to the following achievements:

- the approval and effective implementation of the Greening Programme for Small and Medium Enterprises, approved by Government Decision No. 592/2019¹³;

- the promotion and establishment of specific mechanisms, including Extended Producer Responsibility (hereinafter - EPR), through Law No. 209/2016 on Waste¹⁴. This economic regulatory framework requires producers and importers to manage the disposal of their own or imported products when they reach the end of their life cycle and no longer have usable properties.

- the approval and implementation of the Re-technology and Energy Efficiency Programme for Small and Medium Enterprises, approved by Government Decision No. 515/2022.¹⁵

- the approval of the Support Programme for Digital Innovations and Technology Start-ups, approved by Government Decision No. 243/2024.¹⁶

The Global Sustainable Development Goals (SDGs), integrated into the NDS "European Moldova 2030" at the national level, serve as a fundamental pillar for improving the quality of life in harmony with the environment and ensuring a sustainable future. Essential for the Republic of Moldova in advancing the circular economy, the relevant SDGs are:

SDG 3. Good Health and Well-being

The circular economy supports a healthy environment and reduces health risks related to pollution and climate change, while also fostering job creation in renewable energy and environmental protection sectors. By promoting economic practices that reduce GHG emissions and other pollutants, it contributes to cleaner air and the prevention of respiratory diseases, thereby improving public health. Additionally, it encourages the production and consumption of renewable energy, which has a significantly lower environmental impact than fossil fuels, favoring both environmental protection and human health.

SDG 7. Affordable and Clean Energy

The circular economy supports the transition to the use of renewable energy sources, thus facilitating access to clean energy and reducing harmful emissions and greenhouse gases (GHGs). The circular economy encourages the development and implementation of clean energy technologies, such as solar, wind, hydropower, and other forms of renewable energy. It also emphasizes the need to make these technologies accessible to all segments of society, including rural communities, to ensure social equity.

SDG 8. Decent Work and Economic Growth

The circular economy stimulates job creation in recycling and reuse sectors, contributing to sustainable economic growth and promoting social inclusion. It favors business models and industrial practices that improve resource efficiency and reduce waste, contributing to sustainable economic growth that is independent of the overexploitation of natural resources. It is essential to ensure a fair distribution of the gains from green economic growth among different social groups through equitable wage policies and the provision of a safe and healthy work environment.

¹¹ Official Gazette Nr. 82 din 12.04.2013. https://www.legis.md/cautare/getResults?doc_id=114412&lang=ro#

¹² Official Gazette Nr. 332-335 din 02.08.2024. https://www.legis.md/cautare/getResults?doc_id=144384&lang=ro

¹³ Official Gazette Nr. 360-366 din 06.12.2019. https://www.legis.md/cautare/getResults?doc_id=139541&lang=ro#

¹⁴ Official Gazette Nr. 459-471 din 23.12.2016. https://www.legis.md/cautare/getResults?doc_id=135894&lang=ro#

¹⁵ Official Gazette Nr. 246-450 din 05.08.2022. https://www.legis.md/cautare/getResults?doc_id=139539&lang=ro#

¹⁶ Official Gazette Nr. 118 din 20.04.2022. https://www.legis.md/cautare/getResults?doc_id=139547&lang=ro#

SDG 9. Industry, innovation and infrastructure

The circular economy encourages innovation in production processes and the development of sustainable infrastructure. It promotes the development and modernisation of infrastructure to minimise negative environmental impacts, supporting initiatives such as green transport, the use of renewable energy sources, and sustainable construction practices. A strong emphasis is placed on innovation as a means of finding creative and efficient solutions to global environmental challenges. Innovation in green technologies, responsible resource management and the creation of business models based on circular economy principles are crucial for a successful transition to a sustainable economy.

SDG 10. Reduce inequalities

The circular economy supports sustainable urban development, encourages the use of green public transport and improves energy efficiency in buildings. It provides a framework in which reducing inequalities can be addressed not only through fair income distribution, but also through access to resources, job opportunities, education and participation, contributing to a fairer and more sustainable future for all.

SDG 11. Sustainable cities and communities

The circular economy emphasises the design and renovation of buildings for maximum energy efficiency, using environmentally friendly materials and innovative technologies to minimise resource consumption and greenhouse gas emissions. There is also a strong focus on supporting green transport systems, including optimised public transport, bicycle- and pedestrian-friendly infrastructure, and the introduction of electric vehicles, all of which contribute to reducing air pollution and improving public health. In addition, the creation and maintenance of urban green spaces play a crucial role in improving air quality and preserving biodiversity, while providing recreational areas for residents, thereby improving the quality of urban life.

SDG 12. Responsible Consumption and Production

The circular economy supports models of responsible production and consumption, as well as contributes to waste generation reduction and encourages material recycling. Within the framework of the circular economy, SDG 12 focuses on creating consumption and production models through the following strategies: (i) eco-design, (ii) waste minimization, (iii) resource use optimization, and (iv) consumer awareness.

SDG 13. Climate Action

The circular economy plays a crucial role in reducing GHG emissions by encouraging the use of renewable energy and adopting sustainable farming methods. By promoting reuse, repair, remanufacturing, and recycling, the circular economy plays a key role in reducing the carbon footprint. Optimizing energy consumption in industrial processes and transitioning to renewable energy sources instead of fossil fuels are essential steps. The adoption of sustainable agricultural and forestry practices, which leverage natural cycles and reduce reliance on chemical fertilizers and pesticides, contributes to carbon sequestration and strengthens ecosystem resilience.

SDG 15. Life on Land

The circular economy emphasizes the importance of protecting, restoring, and promoting the sustainable use of terrestrial ecosystems, sustainable forest management, combating desertification, halting and reversing land degradation, and halting biodiversity loss. It contributes to reducing the impact on terrestrial ecosystems by integrating regenerative agricultural practices that promote soil health and biodiversity conservation. By supporting conservation and restoration projects, it promotes environmental quality improvement and ensures the provision of vital ecosystem services for life on Earth.

SDG 16. Peace, Justice, and Strong Institutions

For the effective implementation of a circular economy, inter-institutional collaboration is crucial, encompassing the integration of science, economics, and traditional local knowledge. The circular economy aims to create a peaceful and inclusive society, emphasizing free access to justice and the development of responsible and transparent institutions at all levels. By encouraging cross-sectoral collaboration and public-private partnerships, the circular economy strengthens initiatives focused on peace and justice.

SDG 17. Partnerships for the Goals

The efficient implementation of the circular economy requires innovation across multiple sectors, including production, consumption, and waste management. Collaborations between the public sector, private sector, academia, and societal organizations are crucial for creating and applying technologies and methodologies that support sustainability. International partnerships can stimulate the exchange of information, technology, and resources, while local projects are essential for adapting and implementing solutions in accordance with the particularities and needs of communities.

2.2 Promoting responsible consumption to achieve a circular economy

Since the first oil crisis in the early 1970s, the importance of environmental aspects of industrial activities has increased steadily. The first attempts to find solutions to regional and global environmental damage involved the development of environmental technologies (end-of-pipe treatment) to manage, control and treat waste from industrial activities. In the late 1970s, the concept of pollution prevention emerged as an economic alternative to end-of-pipe solutions. Pollution prevention focuses on the introduction of conservation-oriented technology, covering not only the supply and production of raw materials, but also the consumption and disposal of products. Despite these efforts, environmental threats have increased. With the focus on sustainable development in 1987, the concept of pollution prevention was extended to cover all industrial activities, the entire product life cycle and all other human activities that have an impact on the economy, the environment and society.

Eco-design is a product design approach that aims to reduce the overall environmental impact of a product in a number of ways. This can include significant innovations, such as placing the on/off button on a TV in a way that makes it easier or harder to turn off the TV and save energy, or simple aspects such as the metals used in the product or how different components of the used product can be recycled. Environmental performance and energy efficiency can be improved by incorporating environmental aspects at an early stage of product development.

The concept of the product life cycle is therefore at the heart of eco-design. It starts with the extraction of resources from nature, continues with the production of materials and manufacturing processes of products/components, the use and maintenance of a product and ends at the end of its life ("cradle to grave" approach).

To realise this vision, it is necessary to make tangible progress in improving people's quality of life by transitioning to a circular economy based on recycling (as opposed to the existing linear economy in the Republic of Moldova), which offers significant economic and social benefits: generating economic growth, stimulating innovation, creating jobs, increasing incomes and providing a healthy environment for current and future generations.

Up to 80% of a product's environmental impact is determined at the design stage, yet the linear "take-make-use-dispose" model does not provide sufficient incentives for manufacturers to make their products more circular. Many products break down too quickly to be easily reused, repaired or recycled, and many are designed for single use only.¹⁷

Implementing circular economy principles aims to create an economic system that works in harmony with nature, supports sustainable development and ensures long-term prosperity for people and the planet.

Eliminating and minimising waste to reduce environmental impact. Products and materials are designed from the outset to minimise waste and pollution. In addition, efforts are made to increase the proportion of recycled materials in the composition of products, while ensuring their performance and safety.

Maintain the use and extend the life of existing products. The aim is to extend the life cycle of products by keeping them in optimal working condition for as long as possible, thus reducing the need to produce new goods and the environmental impact associated with their production and disposal. This approach is fundamental to the circular economy and contributes to more efficient use of resources and a reduced environmental footprint.

The "do no significant harm" principle means not supporting or carrying out economic activities that cause significant harm to any of the established environmental objectives. (art. 17 of Regulation (EU) 2020/852 establishing a framework to facilitate sustainable investment).

Ensuring sustainable consumption is possible through the availability of viable alternatives. The choice of sustainable products, such as biodegradable and reusable ones, will naturally lead to the sustainable development of the national territory, in line with the capacity of the ecosystem and natural resources to support this development. The aim is to achieve economic and social transformation through innovation and technology, encouraging companies and consumers to adopt sustainable models that contribute to the conservation of natural resources for future generations.

As Moldova's economy develops and consumption increases, a lack of public awareness may also lead to higher volumes of waste and a reluctance among consumers to separate waste, reuse products and packaging.

¹⁷ JO L 198, 22.6.2020. <https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX%3A32020R0852>

Moldova lacks an integrated waste management system, particularly for hazardous waste, that meets international requirements. This problem is even more acute in rural areas, where there is a lack of space for waste storage.

According to the Waste Management Strategy of the Republic of Moldova for 2013-2027¹⁸, per capita municipal waste generation in rural areas was 0.3-0.4 kg/person/day, while in urban areas it was 0.9 kg/person/day (in the period 2010-2012). During the period 2016-2020, as feasibility studies for the development of regional waste management systems were being finalised, the waste generation indicators were revised and the following values were proposed: 0.5-0.7 kg/person/day for rural areas, 0.9 kg/person/day for small urban areas and district centres, and between 1.3-1.5 kg/person/day for the communes of Bălți and Chișinău.

2.3 Sustainable Producer Responsibility

Law No. 209/2016 on Waste¹⁹ has incorporated most of the regulations from Directive No. 2008/98/EC²⁰, which standardizes contemporary waste management practices and establishes the Extended Producer Responsibility (EPR) framework.

The provisions of Law No. 209/2016 on Waste²¹ encourage the design, production and marketing of products with multiple uses, which are technically durable and, after becoming waste, can be safely recovered and disposed of without polluting the environment. The law establishes the Extended Producer Responsibility (EPR) regime for natural or legal persons (the product producer) who, on a professional level, design, produce, process, treat, sell and/or import vehicles, including their components, and imposes obligations, either individually or collectively, for the recovery, reclamation or recycling of end-of-life products.

According to the provisions of art. 12, para. (14) of Law No. 209/2016 on Waste, the EPR principle applies to the following products:

- a) batteries and accumulators;
- b) electrical and electronic equipment;
- c) vehicles;
- d) oils;
- e) packaging.

The EPR principle for various categories of end-of-life products is established in several regulations.

The conditions for improving environmental protection performance and public health by preventing or reducing the negative effects of the generation and management of Waste Electrical and Electronic Equipment, as well as by improving the efficiency of their use, are regulated by the Regulation on Waste Electrical and Electronic Equipment, adopted by Government Decision No. 212/2018.²²

The rules for the placing on the market of batteries and accumulators, as well as specific procedures for the collection, treatment, recycling and disposal of waste batteries and accumulators, including the prohibition of the placing on the market of batteries and accumulators containing certain hazardous chemicals, are laid down in the Regulation on the Management of Batteries and Accumulators and their Waste, approved by Government Decision No. 586/2020²³.

The Regulation on Packaging and Packaging Waste, approved by Government Decision No. 561/2020²⁴, regulates the management of packaging and packaging waste in order to prevent or reduce environmental impact, ensure a high level of environmental protection, the functioning of the market and the avoidance of obstacles to trade, as well as the prevention of distortion or restriction of competition.

The Regulation on the Management of End-of-Life Vehicles, adopted by Government Decision No. 93/2023²⁵, establishes a legal framework conducive to achieving circular economy targets. It promotes eco-design, prohibits the use of harmful substances in vehicle manufacturing, and sets ambitious goals for the reuse, recycling, and recovery of materials from End-of-Life Vehicles (hereinafter - ELVs), thereby keeping valuable resources within the economy.

¹⁸ Official Gazette Nr. 82 din 12.04.2013. https://www.legis.md/cautare/getResults?doc_id=114412&lang=ro

¹⁹ Official Gazette Nr. 459-471 din 23.12.2016. https://www.legis.md/cautare/getResults?doc_id=135894&lang=ro#

²⁰ Directive 2008/98/CE. JO L 312, 22.11.2008. <https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=CELEX:32008L0098>

²¹ Official Gazette Nr. 459-471 din 23.12.2016. https://www.legis.md/cautare/getResults?doc_id=135894&lang=ro#

²² Official Gazette Nr. 95-104 din 23.03.2018. https://www.legis.md/cautare/getResults?doc_id=139922&lang=ro

²³ Official Gazette Nr. 221-225 din 28.08.2020. https://www.legis.md/cautare/getResults?doc_id=122845&lang=ro

²⁴ Official Gazette Nr. 212-220 din 21.08.2020. https://www.legis.md/cautare/getResults?doc_id=122773&lang=ro

²⁵ Official Gazette Nr. 130-133 din 18.04.2023. https://www.legis.md/cautare/getResults?doc_id=136554&lang=ro

This regulatory initiative is primarily motivated by the need to implement an efficient system for preventing the generation of waste from ELVs and their components, as well as optimizing their reuse, recycling, and other recovery processes to minimize waste. Additionally, it aims to improve the environmental performance of all economic actors involved in the vehicle life cycle, with particular attention given to operators managing the treatment of ELVs.

The Waste Oils Management Regulation, approved by Government Decision No. 731/2022²⁶, establishes requirements for the proper environmental management of waste oils generated at the national level through the application of the Extended Producer Responsibility (EPR) system. It establishes standards for the prevention and limitation of air, water and soil pollution and the reduction of risks to human health resulting from the handling and transport of waste oils.

The Regulation on the Management of Used Tyres, approved by Government Decision No. 610/2022²⁷, establishes a legal framework for the management of used tyres in order to prevent or reduce their impact on the environment and human health, thereby contributing to the sustainable development of society. It also establishes requirements for the collection, reuse, retreading, energy recovery and/or recycling of used tyres.

The processes of authorisation, notification and reporting of data on the generation and management of waste covered by the EPR principle are facilitated by the Automated Information System "Waste Management" (SIA "MD"). SIA "MD", implemented in accordance with Government Decision No. 682/2018²⁸, serves to collect and centralise data on waste in the Republic of Moldova, providing an overview of the products placed on the market and the waste generated.

²⁶ Official Gazette Nr. 374-382 din 25.11.2022. https://www.legis.md/cautare/getResults?doc_id=134207&lang=ro

²⁷ Official Gazette Nr. 291-296 din 23.09.2022. https://www.legis.md/cautare/getResults?doc_id=133416&lang=ro

²⁸ Official Gazette Nr. 267-275 din 20.07.2018. https://www.legis.md/cautare/getResults?doc_id=108814&lang=ro

Conclusions

Global and regional crises cannot be treated separately, as they are deeply interlinked and have common origins in the shortcomings of the global economic system. The current economy favours excessive consumption and endangers natural resources. The activities of extraction, processing and disposal of materials generate various negative environmental impacts, including the increase of greenhouse gas emissions, which jeopardise the achievement of essential environmental protection goals. It is imperative to promote stricter resource efficiency policies and to advance the circular economy throughout the value chain, replacing traditional business models with circular ones.

Sustainable development is a central pillar of the Government Program, with the fundamental objective of promoting sustainable and inclusive development for the Republic of Moldova. This strategic orientation is essential not only for improving the quality of life for citizens but also for aligning with European standards and values in the context of the country's European path.

On June 23, 2022, the Republic of Moldova marked a historic moment by obtaining candidate status for European Union membership. This status not only reaffirms the country's commitment to the principles of democracy, the rule of law, and respect for human rights but also highlights the importance of sustainable development as the foundation of progress and European integration.

In December 2023, EU leaders decided to open accession negotiations with the Republic of Moldova and invited the Council to adopt the negotiation framework after completing the relevant steps outlined in the Commission's report.

During the accession process, the Republic of Moldova is required to align with several essential policy documents aimed at achieving the sustainable development goals adopted by the European Commission for the period 2020-2024. These include the European Green Deal, the Circular Economy Action Plan, the EU Action Plan "Towards Zero Pollution for Air, Water and Soil," the Industrial Strategy for Europe, the "Farm to Fork" Strategy, the EU Biodiversity Strategy for 2030, the EU Strategy on Adaptation to Climate Change, and the "European Climate Law." These documents aim to translate political aspirations into practical measures, with the goal of facilitating a green transition, including the shift to a circular economy that is both efficient and socially equitable, while also ensuring predictability and a transparent legal framework for achieving the proposed objectives.

At the same time, national targets need to be adapted in line with the following EU policy documents Towards a circular economy: A Zero Waste Programme for Europe and the European Strategy for Plastics in a Circular Economy. The adoption of the Programme for the Promotion of the Green and Circular Economy in the Republic of Moldova for the period 2024-2028 represents an important step towards alignment with EU policy objectives. However, certain shortcomings need to be addressed, such as the inclusion of the following provisions:

- research and innovation initiatives;
- information exchange and support for voluntary approaches;
- actions to reduce plastic waste and promote circular solutions;
- development of a sustainable plastics industry focused on reuse, repair and recycling.

Achieving success in waste initiatives in line with their hierarchy requires a crucial change in consumer attitudes and production methods. Creating responsible consumers and producers is essential to bring about this change and to achieve the Sustainable Development Goals. This is a significant challenge for producers placing products on the market, but also a responsible choice for consumers in their purchasing decisions. Extended Producer Responsibility (EPR) involves actions where producers assume responsibility for their products throughout their lifecycle, including taking them back for recycling after use. This "take-back" system encourages producers to design better product packaging, use more easily recyclable or reusable materials, and improve the sustainability of the products they manufacture.

At the same time, efforts must be intensified to achieve key indicators where progress has been limited, particularly in relation to eco-efficient enterprises (with rational resource use), green public procurement, and the integration of sustainable development topics into school curricula.

In order to meet the above-mentioned objectives, the following **policy recommendations** could be considered:

1. **Strengthening Circular Economy Policies:** Introduce stricter regulations to promote resource efficiency across industries and incentivize circular business models that emphasize waste reduction, reuse, and recycling. Establish measurable targets for sectors such as construction, manufacturing, and agriculture to encourage sustainable practices.

2. **Public-Private Partnerships for Innovation:** Foster collaboration between government, industry, and academia to support research and innovation in sustainable materials, eco-friendly product design, and advanced recycling technologies. Provide financial incentives for companies investing in green innovations.
3. **Extended Producer Responsibility (EPR) Framework:** Mandate EPR schemes for key industries, ensuring that producers are responsible for the full lifecycle of their products. This would encourage companies to design products that are more sustainable and recyclable, reduce waste, and foster a circular economy.
4. **Consumer Awareness Campaigns:** Launch public awareness campaigns to promote responsible consumption, encouraging citizens to choose sustainable products and reduce waste. Provide information on the benefits of circular economy practices, including reuse and recycling.
5. **Green Public Procurement:** Set ambitious targets for green public procurement, requiring that all government contracts prioritize eco-friendly products and services. This would stimulate demand for sustainable goods, supporting the green economy.
6. **Sustainable Education Initiatives:** Integrate sustainable development and circular economy principles into national school curricula, ensuring that younger generations are educated on the importance of environmental protection, resource efficiency, and responsible consumption.
7. **Monitoring and Reporting Mechanisms:** Establish a robust monitoring and reporting framework to track progress towards sustainability goals, ensuring accountability at all levels. This framework should include regular reviews and updates to policies based on performance data.

By implementing these recommendations, the Republic of Moldova can accelerate its transition towards sustainable development, aligning with EU standards and securing long-term economic, social, and environmental benefits.