

KARAKALPAKSTAN TOWARDS GREEN ECONOMY AND SUSTAINABLE DEVELOPMENT GOALS

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Annotation: The Sustainable development goals are the outlines to achieve a better and more sustainable future for all. They address the global challenges we face today, known as SDG 12, is a global initiative that emphasizes responsible consumption and production. It is important that Uzbekistan responds to all these goals, but in this article we show some actions to achieve SDG 12, particularly in Karakalpakstan.

Key words: Green economy, Clean Energy, Sustainable development goals, Responsible consumption and production, recycling

The Sustainable development goal 12 focuses on ensuring responsible consumption and production patterns. This goal recognizes the critical need to address the environmental impacts of our consumption habits and production processes. By promoting efficient resource utilization, reducing waste, and minimizing the negative effects on the environment, SDG 12 aims to create a more sustainable and resilient future for all. The purpose of this research is to reveal the works how deal with plastic reduction and renewable energy in Karakalpakstan. A broad use of plastic goods everyday life and brings many facilities for people. But plastic waste has become a pervasive problem, polluting various ecosystems such as soil, waterways, and streets. Shockingly, Dick Vethaak, an ecotoxicologist

at Vrije Universiteit Amsterdam in the Netherlands have even found traces of plastic particles in human blood¹. Furthermore, countless animals suffer accidental deaths due to ingesting plastic waste. To address this issue, several measures can be taken. Firstly, governments should establish regulations governing the production, disposal, and recycling of plastic.

It's worth mentioning that steps are already being taken to tackle this issue. For instance, in Kungrad district of Karakalpakstan, the production of paving stones using plastic waste has commenced, along with the manufacturing of ropes in Muynak district of Karakalpakstan. These initiatives mark important strides toward reducing plastic pollution and promoting sustainable practices.

The following plastics are suitable for recycling, depending on their use once they have been recycled:

Polyethylene terephthalate (PET), which has unique properties such as lightness, high flexibility, resistance to extreme temperatures or to steam and various gases. It is also transparent, which makes it ideal for food preservation and marketing. It is the most widely used type of plastic in the world.

Polyvinyl chloride (PVC), which is rigid and hard. As such, it is mainly used to package materials and ensure their protection. It contains a toxic substance called nonylphenol.

High-density polyethylene (PE-HD), which is characterized by good moisture resistance and, like PVC, is quite strong. It is widely used in the sanitary sector and in beverage factories.

Polypropylene (PP), which is quite flexible yet tough. It is used to produce disposable material or, for example, to make kitchen utensils.

Polystyrene (PS), which is highly moldable. As a result, it is used to make packaging foam or in industries such as electronics.

¹ A.D. Vethaak, J. Legler Microplastics and human health. Science, 371(No 6530) 2021

Low-density polyethylene (LDPE), which is very flexible and withstands heat quite well. It is the essential element for producing bags for the food industry. One of the problems it suffers from is that it contains some toxic substances, such as aldehydes, ketones or carboxylics.

The dynamics of waste plastic recycling in Karakalpakstan, tons

| | Types of plastic recycling | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
| 1 | Polyethylene terephthalate (PET) | 412 | 528 | 576 | 610 | 720 |
| 2 | Polyvinyl chloride (PVC) | - | - | - | - | - |
| 3 | High-density polyethylene(PE-HD), | - | - | - | - | - |
| 4 | Polypropylene (PP) | 358 | 478 | 502 | 550 | 624 |
| 5 | Low-density polyethylene (LDPE), | 305 | 346 | 398 | 414 | 438 |
| | TOTAL: | 1 075 | 1 352 | 1 476 | 1 574 | 1 782 |

One of its key facets revolves around renewable energy. As the world grapples with the urgent need to reduce carbon emissions and mitigate climate change, our response to SDG 12 regarding renewable energy in Karakalpakstan, in collaboration with foreign investors from the United Arab Emirates, China, and France, is making significant efforts towards transitioning to green energy. We are witnessing transformations where our medical and educational institutions are actively participating. These buildings are becoming symbols of this change, with solar panels appearing on their rooftops. Meanwhile, our streets are being illuminated by the energy of sunlight, making our roads safer and more environmentally friendly. This collaboration with investors from different parts of the world brings us technologies and resources to shift towards more sustainable energy sources.

It's not just a commitment to Sustainable Development Goal 12; it's our collective aspiration to improve our world. Together, we are crafting a cleaner and greener future where energy is not only power but also responsibility. We are the architects of our future, and with renewable energy, we're building a nation that thrives, sustains, and flourishes.

Conclusion:

As a conclusion of the realms of Sustainable development goals in Karakalpakstan: Reducing plastic waste and embracing renewable energy is not just our response to a global challenge; it's our legacy for future generations. These showed to us how our country respond to SDG 12 from globally to minimally.

Worldwide communities are beginning to enact regulations to control plastic production and promote recycling. In our region, we see promising initiatives like the use of plastic waste in paving stones, rope manufacturing and solar panels on a buildings solar-powered street lighting being tangible evidence of our progress to sustainable practices. This is not the end; it's just the beginning of a brighter, cleaner, and greener future.

Reference:

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3. Uzbekistan-2030 Strategy, 2023
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