ISSN 2029-1701
ISSN 2335-2035 (Online)

Research Journal
PUBLIC SECURITY AND PUBLIC ORDER
2022 (29)

MANAGEMENT OF NATURAL RESOURCES IN THE CENTRAL ASIAN REGION

Mukhammadjon KHIKMAT
Master's student, Rezekne Academy of Technologies, Rezekne, Latvia
E-mail: maga31282@gmail.com
ORCID ID: 0000-0002-1213-903X

Nijolė PETKEVIČIŪTĖ
Vytautas Magnus University, Kaunas, Lithuania
E-mail: nijole.petkeviciute@vdu.lt
ORCID ID:0000-0002-3281-9411

DOI: 10.13165/PSPO-22-29-25

Abstract*. The term "natural resources" refers to both the natural and socio-economic realms. Natural resources - bodies and forces of nature - are linked to ensure close interaction in the process of nature management. Currently, this specific region has some vulnerable issues such as biodiversity loss and land degradation that are connected with poor resource management. The activities of modern society are followed by enormous changes in nature, which are reflected in the Earth's exterior appearance as well as the states of geosystems. Modern production is distinguished by the inclusion of significant reserves of natural resource potential. However, its participation and application are ineffective. Sustainable development necessitates the management of natural resources in a sustainable and integrated manner. The main tasks of the paper are: to discuss the theoretical aspects of natural resources and to analyze the natural resource potential of the Central Asian region. Research period: is modern economy of recent years 2011-2021. Research methods: analysis, observation and secondary data collection. Research problem: mismanagement of natural resources in the Central Asian region and economic evaluation of it. The paper introduces the analysis of scientific literature and observe the management strategies of natural resources in the Central Asian region. The scientific research methods that were used are: scientific literature analysis and synthesis, observation and secondary data collection. The novelty of the study is the analytical discussion about the mismanagement of natural resources in a specific region.*

Keywords*: management, natural resources, development, potential, social economics.*

Introduction

The concept of "natural resources" belongs to both the natural and socio-economic spheres. By linking these areas, natural resources - bodies and forces of nature, ensure their close interaction in the process of nature management. Natural resources - space-time category; their volume is different in different regions of the world and at different stages of the socio-economic development of society. Central Asia is a dynamic and diverse region that is experiencing steady economic growth and new development possibilities. Smart management of the region's energy and water resources is critical to the region's continued growth, prosperity, stability, and well-being. Despite the fact that Central Asia is becoming more globalized, national aspirations such as food security and reliable energy services continue to drive development decisions.

The aim of the present paper is to investigate the main natural resources of the Central Asian region and to analyze the cost of poor management. The first part of the paper deals with the concept of natural resources potential. The second part introduces the classification of main resources in this specific region. The main tasks of the paper are: to discuss the theoretical aspects of natural resources and to analyze the natural resource potential of the Central Asian region. Research period: is modern economy of recent years 2011-2021.

Research methods: analysis, observation and secondary data collection
Research problem: mismanagement of natural resources and economis evaluation of it.

The concept of natural resource potential

The natural resource potential of the territory is the totality of the natural resources of the territory that can be used in the economy, taking into account the achievements of scientific and technological progress. The natural resource potential of the territory is the most important economic factor, one of the qualities by which the economic and geographical position is assessed. The most important basis for the economic development of any region and one of the main conditions for the location of productive forces on its territory is the set of natural conditions and resources characteristic of it. The quantity, quality, and spatial combination of resources, the degree of supply is the most important factor in the location of the population and its economic activity (Kerimov, Gagaeva, 2018).

Any type of resource is beneficial for the economy of the region and rises the potential of natural resources of any specific country (Figure 1).

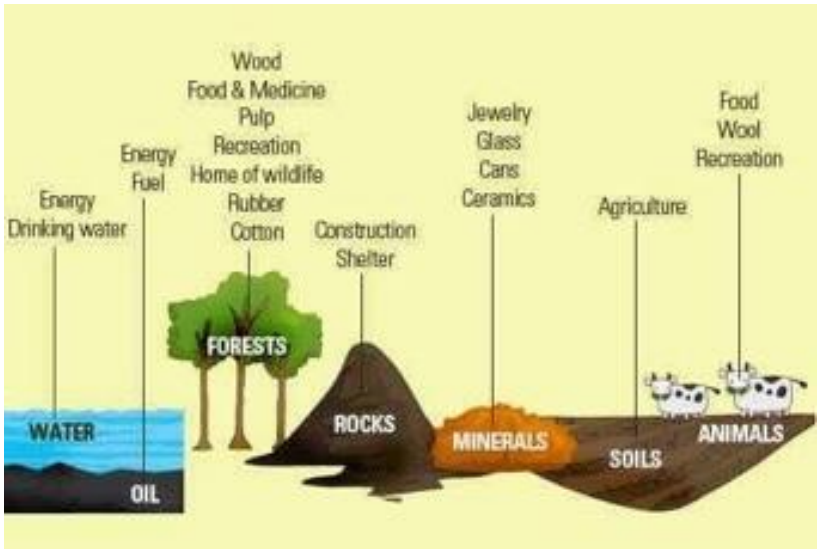

Figure 1. Types of natural resource potential

The functioning of national economies and the entire world economy is based on economic resources (factors of production) - natural, labor, capital (in the form of real capital, i.e. in the form of means of production, and financial, i.e. in monetary form), entrepreneurial, as well as scientific (scientific and technical, information knowledge). Taken together, economic resources form the potential of a national economy or a region of the world or the entire world economy.

Central Asia is a dynamic and diverse region that is experiencing steady economic growth and new development possibilities. Smart management of the region's energy and water resources is critical to the region's continued growth, prosperity, stability, and well-being. Despite the fact that Central Asia is becoming more globalized, national aspirations such as food security and reliable energy services continue to drive development decisions (World Bank, 2022).

The purpose of the work is to investigate the main natural resources of the Central Asian region, to show the cost of poor management.

The structure of the paper is management of resources in the Central Asian region. The first part deals with the theoretical aspects of socio-economic importance of natural resources. The second - is devoted to analyze natural resources of the Central Asian region.

Socio-economic importance of natural resources

The natural environment serves as the natural basis for human economic activity. All human production activity can be represented as a process of transforming nature into forms that are acceptable for use. From the point of view of the needs of society, all bodies and forces of nature can be conditionally subdivided into two groups: those directly involved in material production and the sphere of non-material services (natural resources) and all the rest (usually referred to as natural conditions). Natural conditions are elements of nature that are not directly used in the production process but affect the lives of people. The dependence on the natural conditions of agriculture, the mining industry, certain types of transport, recreational activities, etc. is especially strong. Natural conditions can be favorable (optimal temperature regime, sufficient air humidity, etc.) or negatively affect human economic activity. Alpine relief, harsh climate, permafrost, swamps, deserts complicate the economic development of the territory.

The use of renewable resources has the character of "resource turnover", its scale is determined by the annual "productivity", and the problem of rational use is to ensure the continuity of this circulation, increase its volume, and ensure conditions for the restoration of natural resources. Non-renewable resources have a certain finite stock, and this dictates the need for their more complete extraction, careful use, and comprehensive use of the extracted raw materials. Land, biological, and water resources are renewable, but in some sources (separate regions) their complete depletion or depletion may occur.

Overall, we struggle to value ecosystem functions, but we feel the economic consequences of degraded ecosystems when fisheries decline, soil fertility decreases, and deserts expanded. Ecological systems also provide chances for culturally valuable activities such as aesthetic enjoyment, education, and scientific research.

Classification of resources

Furthermore, according to Päivi Lujala (2003), if resources are not properly grouped, the results of any analysis may be diluted because different natural resources may affect the dependent variable (risk of conflict, duration, economic growth, etc.) differently and even in opposite directions. It is possible, for example, that some natural resources will actually shorten the duration of a conflict while others will prolong it. Similarly, some resources may increase the risk of conflict onset, whereas others may have no effect on the risk of conflict onset (Lujala, 2003).

Natural resources are classified basically under only three categories. Namely:

1. Classification based on origin
2. Classification based on availability.
3. Classification based on level of development.

1) *Classification of Natural Resources Based On Origin.*

Biotic and abiotic resources.

- Biotic Resources: The term "bio" refers to life. Biotic resources are natural resources that contain life and are derived from living organisms. All plant and animal species, microorganisms, fossil fuels, and so on are examples.

- Abiotic Resources: These are resources that do not contain life or are derived from non-living organisms. Water, air, soil, rocks, minerals, and so on are all examples.

Table 1. Difference between biotic and abiotic resources

Biotic Resources	Abiotic Resources
Definition	
Biotic factors include all the living components present in an ecosystem	Abiotic factors refer to all the non-living, i.e. physical conditions and chemical factors that influence an ecosystem
Examples	
Examples of biotic resources include all flora and fauna	Examples of abiotic factors include sunlight, water, air, humidity, pH, temperature, salinity, precipitation, altitude, type of soil, minerals, wind, dissolved oxygen, mineral nutrients present in the soil, air and water, etc.
Dependence	
Biotic factors depend on abiotic factors for survival and reproduction	Abiotic factors are completely independent of biotic factors
Origin	
Biotic components originate from the biosphere	Abiotic components originate from the lithosphere, hydrosphere and atmosphere

The two primary factors responsible for shaping the ecosystem are biotic and abiotic. All living beings present in an ecosystem are referred to as biotic factors, while non-living components such as physical conditions (temperature, pH, humidity, salinity, sunlight, etc.) and chemical agents (different gases and mineral nutrients present in the air, water, soil, etc.) are referred to as abiotic factors (Table 1). As a result, both abiotic and biotic resources influence the survival and reproduction processes (EnvironmentGo).

2) *Classification of natural resources based on availability*

Renewable and non-renewable resources.

- Natural resources that can be replenished are referred to as renewable resources. The rate at which they can be replenished outpaces the rate at which they can be depleted. As a result, they are always available. Solar energy, water, wind, and other forms of renewable energy are examples.
- Non-renewable Resources: These resources are limited and can be depleted. It takes millions of years for them to form. Examples include fossil fuels, coal, and endangered organisms.

Is the availability of the resource limited to geographically small areas or does it extend over a larger area? For example, forests cover large areas and are thus regarded as diffuse resources. Point resources are highly concentrated and do not cover a large area on a map. Many minerals, for example, occur in small areas and are represented as points on a map. The point-diffuse distinction has been used in some empirical studies to assess the impact of natural resources on conflict. To assess the scope of conflict, Buhaug and Gates (2002)

define activities like oil drilling and pit mining as point resources, whereas timber, drug cultivation, and alluvial diamonds are considered "more widely available (Lujala,2003).

3) *Classification of natural resources based on development*

Potential, reserved, stock, and actual resources.

Potential Resources: These are resources that exist but have not been quantified and can be used in the future. Wind energy, for example, exists in some areas but has not been used to generate energy.

- Wind, for example, or nuclear minerals.

Reserved Resources: These are natural resources that have been identified and quantified but have yet to be exploited because they have been set aside for future use.

- Example rivers.

Stock Resources: These are resources that have been discovered and quantified but have yet to be utilized due to insufficient technology.

- Example the element hydrogen.

Actual resources are those that have been discovered, quantified, harnessed, and are in use.

- Examples include crude oil and forests.

This is a basic classification of natural resources in a nutshell. All known and unknown natural resources must fall into one of these classes and then into one of the subclasses (EnviromentGo, 2021).

Table 2. Combination of natural resource classification, geographical concentration and regeneration rate
Source: Lujala,2003.

	Renewable	**Non-renewable**
Diffuse	• Vegetation, soil, forest, corps • Animals • Water	• Peat • Some substances found in Earth's crust like gravel and sand
Point	• Some crops/animals that require very specific conditions	• Many ores, like gold

The scarcity approach is mostly concerned with the resources in the upper left corner of the table (renewable diffuse resources), whereas abundance-oriented conflict literature tends to blame resources in the lower right corner (non-renewable point resources) for conflict propensity (Table 2). This could imply that the two approaches – one claiming scarcity of natural resources is causing conflicts and the other accusing abundance – are not mutually exclusive.

In his conflict typology, Le Billon (2001) considers the distinction between point and diffuse resources. He assesses the relative location of resource areas in relation to state capital, which is used as a proxy for state control, in addition to dividing resources into point and diffuse resources. He contends that point resources near the capital are associated with coup attempts, whereas point resources on the outskirts motivate violent secession conflicts. Diffuse resources, in turn, are associated with riots when located close to the capital, and with wardlordism when located further away, as several armed groups may violently claim their share of natural riches. Economic research can also provide examples of natural resource classifications. Sachs and

Warner (1995) discover that natural resource abundance is detrimental to growth in their influential empirical study on resource abundance and growth. While Sachs and Warner are not interested in estimating whether different resource types have different effects on growth, they do test the effect of mineral resource production on growth separately – as part of their robustness checking.

Others, such as Auty and Gelb (2001), Isham et al. (2002), and Murshed and Perälä (2001), argue that revenues from point resources will most likely be captured by the government and elite. They argue that the significant revenues generated by these point resources alienate the government/elite from the population because they do not rely on the population's support to raise funds through a taxation system. It is implicit in these arguments that governments/elites who are not directly accountable to the general population will use resource rents for their own, short-sighted benefit and will use the revenues inefficiently due to corruption and poor policy decisions. Agriculture, on the other hand, benefits growth because the revenues are less likely to be captured by the elite and the government is more dependent on the population to which it is linked through taxation (Lujala, 2003).

Several research studies on resource abundance and economic growth attempted to distinguish between point and diffuse resources. According to Isham et al. (2002), countries are classified into four categories based on their export structure, with countries primarily exporting diffuse, point, coca and coffee, and manufactured products. They define resources such as oil, diamonds, and plantation crops as point resources, and they define agricultural products such as wheat, rice, and animals as diffuse agricultural products. They separate coffee and cocoa because they can be grown by small-scale farmers as well as on plantations. Murshed and Perälä (2002) appear to use a dummy variable to distinguish between countries that have point resources and those that have diffuse resources.

There also appears to be little effort in the economic literature to investigate whether some subset of natural resources is more negatively related to growth. However, as long as all natural resources are deemed harmful to growth, there appears to be little room for policy recommendations – countries would be better off leaving their natural resource base unexploited. If we knew which resources could have the greatest negative impact on growth and under what conditions, it would be much easier to design measures to mitigate the negative effects of resource abundance and to target them correctly.[1]

Central Asia is rich in various energy resources, incl. fossil fuels (oil, gas, coal) and, in particular, renewable (hydro, wind and solar energy). These resources can be used to support growing agriculture, and their volumes can exceed domestic demand. The operation, observation, mitigation, and adaptation of ecological and environmental problems have received more attention in natural resource management than their theoretical design. Although osmosis with contingency planning is desirable, natural resource management is primarily based on the consideration of the relationship between humanity, culture, and natural processes, with science being applied to solve any problems that arise. Presently, natural resource degradation causes environmental pressures such as qualitative and quantitative impacts on water resources, overexploitation, desertification, soil erosion, deforestation, and environmental degradation.

[1] Lujala, P. (2003). Classification of Natural Resources. Retrieved on 10 of December, 2021 from https://www.researchgate.net/profile/Paeivi-Lujala/publication/228422462_Classification_of_natural_resources/links/5613987608aedee13b5cec3d/Classification-of-natural-resources.pdf?origin=publication_detail

Natural resources of the Central Asian region

Central Asia, once shrouded in secrecy and famed for its trans-Asian trade via the Silk Road, is now an open, dynamic region connecting Eastern Europe and West Asia. It is a region rich in natural resources, such as oil and gas, and home to a diverse range of animals and plants. Central Asia, which includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, is a vast land mass that separates Eastern Europe and the Caucasus from East and South Asia (Organization for economic co-operation and development, 2011).
The area of Central Asian region is big enough that can be seen on the map in (Figure 2).

Figure 2. Map of Central Asia with bordering countries
According: People International

Kazakhstan has the most land (2,724,900 square kilometers) and the second largest population in the region (17.5 million). Uzbekistan has the most people (31.3 million), as well as the third largest territory (447,400 sq. km). Turkmenistan has the second largest land area (488,100 square kilometers), but it is the least populated (5.4 million). Kyrgyzstan and Tajikistan, the two remaining countries, have the smallest territories (less than 200,000 square kilometers) and populations of 6.0 and 8.5 million, respectively.

Central Asia's geography and geopolitics are detrimental to the region's economic development for a variety of reasons. For starters, the region is remote from the world's major economic centers: North America, Western Europe, and East and South East Asia. Furthermore, all countries are landlocked (Kazakhstan is the world's largest landlocked country, and Uzbekistan is double landlocked, bordering only landlocked countries), with limited transportation connections both within and outside the region. During the Soviet era, main Central Asian road network crossed and recrossed the borders of Soviet republics. The transformation of already intra-Soviet administrative borders into borders between newly independent Central Asian states, with border and customs controls and, in some cases, visa requirements, posed a significant challenge to intra-regional trade and domestic movement of

people and goods within individual countries, particularly in the densely populated Fergana Valley shared by Kyrgyzstan, Tajikistan, and Uzbekistan.

Oil and gas production in the region has grown at 2.7 percent and 0.2 percent per year, respectively, over the last five years (Figure 3). Although Kazakhstan produces some gas, the majority of it is reinjected to boost local oil recovery. On the contrary, Turkmenistan and Uzbekistan export the majority of their gas to China, Russia, and Azerbaijan. The produced gas can also be exported to neighboring European countries such as Turkey and Georgia, as well as India and Pakistan in Asia.

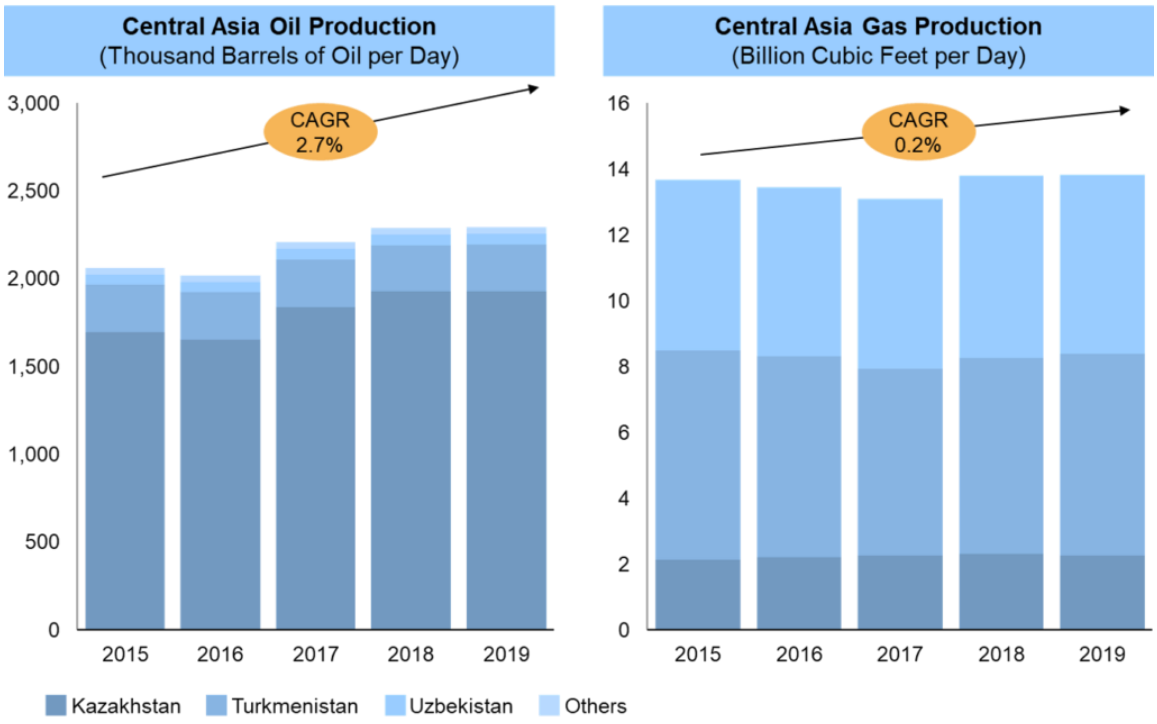

Figure 3. Oil and gas production in Central Asian region in the period of 2015-2019
Source: *AdiAnalytics, 27 of May, 2022.*

Central Asia is rich in energy resources. Kazakhstan, Uzbekistan and Turkmenistan, located in the lower reaches of the rivers, have significant reserves of oil, gas and coal, as well as significant potential in the field of generating wind and solar energy. The upper reaches of Tajikistan and the Kyrgyz Republic have significant, but not fully utilized, hydropower potential (Dabrowski, Batsaikhan, 2017). The presence of such diverse energy systems implies the possibility of meeting the seasonal demand of all countries for electricity in the most economical and environmentally friendly way: with the maximum use of inexpensive hydropower in the summer and reliable sources of thermal energy in the winter when the climate is cold, limits the production of hydropower. At the same time, countries can build capacity to develop sources of wind and solar energy in the future (Kulov,2010).

Agriculture is a major sector of the Central Asian economy. As a result, sustainable agricultural land use is critical to economic growth, human well-being, social equity, and ecosystem services. Agriculture is currently an important sector in Central Asia's economy, accounting for 5.2 percent of GDP in Kazakhstan, 7.5 percent in Turkmenistan, 18.5 percent in Uzbekistan, 20.8 percent in Kyrgyzstan, and 23.3 percent in Tajikistan (Abdullaev 2014; Bobojonov and Aw-Hassan 2014). During the transition period that followed, the crop production industry began to develop. In Kazakhstan, cropland area was drastically reduced,

and monoculture wheat production followed, with producers only recently beginning to include food legumes such as dry peas and chickpeas. Kyrgyzstan was known for its alfalfa seed, potatoes, and maize. Wheat area was doubled during the transition period. In the current market economy, the irrigation of dry beans is increasing. Tajikistan was previously known for its cotton production. The wheat area has doubled, but yields are low. Turkmenistan now produces a respectable amount of bread wheat, though this amount is low for irrigated land. Self-sufficiency in bread wheat grain has been a major achievement of agricultural restructuring in Uzbekistan in recent years (Helming, Hamidov, 2016).

The five Central Asian countries are highly agrarian, with agriculture accounting for over 45 percent of total employment and nearly 25 percent of GDP on average, and 60 percent of the population living in rural areas. Kazakhstan, despite its strong energy sector, is less agrarian than the average Central Asian country, accounting for only 8% of GDP (but still 33 percent of total employment). It is closer to the core CIS countries of Russia, Ukraine, and Belarus in this regard, where agriculture contributes around 10% of GDP and agricultural employment averages 15%.

Central Asia's agricultural land is mostly desert and mountain pastures. Arable land suitable for crop production accounts for approximately 20% of total agricultural land (and as low as 4 percent in Turkmenistan). In Russia and Ukraine, on the other hand, arable land accounts for 60-80% of agricultural land. As a result, pasture-based livestock production has grown in popularity in Central Asia comparing to other core CIS countries.

Cotton played a key role in Central Asia's industrialization and collectivization programs, particularly in Uzbekistan. Uzbekistan has the most share of cotton production among other countries of Central Asia. Moreover, in accordance with international quality parameters, approximately 86% of Uzbek cotton fiber can be attributed to fiber with high tenacity. In Uzbekistan, the agri-food sector, containing of agriculture, food and light industries (textile, garment, apparel, and leather industry), plays a vital role in the domestic economy. In 2019, it was the largest contributor to GDP (41 percent) and producer of export revenue (19 percent) (ICTSD 1st December, 2021).

Today, agriculture alone generates 28 percent of GDP and employs more people than any other industry—27 percent of the entire labor force, or over 3.65 million people. Despite the severe implications of the COVID-19 pandemic, Uzbekistan’s agri-food sector remains an important driver of economic growth and export. It is projected to grow by 2.8% in 2020, compared with 0.6% growth in national GDP (Zorya, Htenas, 2020).

It is proposed to actively introduce green technologies in all areas, increase energy efficiency by 20 percent, and reduce emissions of harmful gases into the atmosphere by 10 percent. For example, by 2026 it is planned to increase electricity production by another 40 billion kWh, bringing the total to 110 billion kWh. In addition, the government intends to save about 3 billion cubic meters. natural gas by increasing the share of renewable energy in total energy production to 25 percent by 2026. In this regard, reducing emissions of harmful gases into the atmosphere by 8 million tons is also a priority (Tulyakov, 2022).

The cost of poor resource management

Mismanagement and inferior technology are the primary causes of Kazakhstan's environmental problems, which include toxic waste (often radioactive), water pollution, and industrial pollution. Previous nuclear tests' radiation levels, as well as vast geological uranium deposits and uranium mining waste, pose significant environmental and health risks. More social issues, such as poverty and security, which both leads to environmental degradation, must

be addressed in Kyrgyzstan. Lack of governance, ethnic conflicts, and poverty wreak havoc on already vulnerable ecosystems (often mountainous). In comparison, it appears that the Kyrgyz government is the only one in Central Asia that explicitly states in its policies the link between environmental stress, poverty, and security risks.

The main issues in Tajikistan are a lack of safe drinking water and continuous land degradation. Notwithstanding the fact that the country does not have general water resource issues, ecologic emergency cases are induced by the country's poor water infrastructure, reliance on hydropower, and agricultural production. Moreover, the country suffers from a slew of social issues and is extremely vulnerable to natural disasters (high seismic activity).

The major environmental impacts in Turkmenistan are a lack of available water and pollution levels in bodies of water, both of which are primarily caused by agricultural and industrial activities. "However, the relatively prosperous economy stands in contrast with severely limited political and civil liberties, a lack of transparency, and virtually no participatory elements in policy-making." Cotton monoculture and pervasive pesticide use are the primary causes of environmental problems in Uzbekistan, including soil erosion, contamination, and widespread salinity. Tensions between Uzbekistan and its downstream neighbors should be mentioned as well, owing primarily to the allocation of critical water supplies and the Aral Sea issue. The worst and scariest issue that mismanagement of natural resources can cause in the Central Asian region is the natural disasters and environmental problems that already exist there. Central Asia's environmental issues are diverse. The collaboration of the Central Asian Republic can be advanced further by addressing environmental concerns. The environmental issues in Central Asia are various. The Aral disaster, as well as biodiversity loss, are two global issues. The degradation of land is severe, and water resources are diminishing and degrading in quality. Climate change is a new threat. Droughts, heat waves, and mudslides are becoming more common. Some issues that should be addressed are as follows: Social adaptation to such changes is becoming increasingly difficult; economically, we must spend significantly more resources to produce the same amount of crop in drought and water-stressed conditions. Conservation and maintenance of nature are financially viable.

Exploitation of high-value natural resources such as oil, gas, minerals, and timber has frequently been cited as a key factor in igniting, ratcheting up, or perpetuating violent conflicts around the world. Land and natural resource management is one of the most pressing issues confronting developing countries today. Moreover, competition for reducing renewable resources such as land and water is increasing. This is made worse by environmental degradation, population growth, and climate change.

Demographic changes place increasing and, at times, unsustainable demands on land, water, fisheries, and other natural resources. Mismanagement of land and natural resources is fueling new conflicts and impeding negotiated settlement of existing ones. Besides that, environmental degradation increases competition for scarce resources, which is exacerbated by climate change. Evaporation of renewable resources, alone or in combination with political, economic, and social factors, has the ability to disrupt livelihoods, harm ecosystems, and undermine peace and development. Access to scarce resources challenges are causing some groups to migrate in search of more reliable access to essential resources, while others engage in conflict – or, as is often the case, a combination of both migration and conflict. The difficulties in preventing, managing, and resolving conflicts over natural resources may come to define global peace and security in the twenty-first century. Demographic shifts, increased consumption, environmental degradation, and climate change are all putting significant and potentially unsustainable strains on the availability and usability of natural resources such as

land, water, and ecosystems. When natural resource grievances intersect with political, economic, cultural, or social dynamics, they have the potential to escalate into destructive, potentially violent conflict, with serious consequences for life and livelihood.

When parties disagree on how to manage, distribute, and protect natural resources and related ecosystems, natural resource conflicts arise. When parties are unable or unwilling to engage in a constructive process of dialogue and conflict resolution, conflicts can escalate into destructive relationships and, eventually, violence. Societies lacking the institutional arrangements for constructive conflict resolution can be drawn into intractable cycles of conflict and violence, particularly when political systems are fragile and oppositional party divisions are extreme (United Nations , 2012).

Conclusions

The low level of intraregional trade in Central Asia, which accounts for less than five percent of the total trade, makes the region one of the least economically integrated regions in the world and prevents the stream of investment.

There are still persistent problems in the area of development. The relatively small and in most cases rather undiversified Central Asian economies are highly dependent on foreign trade.

Most Central Asian countries perform below average in the J2SR Export Sophistication Index, which measures the diversification of a country's exports and is one of the key markers of an economy's complexity and resilience to economic shocks. With the exception of Kazakhstan, Central Asian countries export to a narrow range of markets, making the region vulnerable to external shocks.

Recommendations

In the future, the governments of the countries of Central Asia need to increase the volume of foreign investment by providing favorable tax rates and maintaining good transport and infrastructure network, in order to increase the volume of gas and oil production, as the region is abundant with these resources.

If foreign capital is not attracted, especially technology, local companies will not be able to extract gas at great depths. So the government should also make sure that new technologies are also attracted as an investment in the country. By this way the precious resources will be extracted from even great depths.

The ministries of transportation of Central Asian states need to establish a unified system of transportation networks connecting Asia and Europe, with the participation of Central Asian states, necessitates the formation of a cost-effective mechanism for the transportation of goods required for competitive transit. This action will make the region more attractive for foreign investors.

The governments of Central Asian countries must modify border procedures for goods, completely remove monopolies in the transportation sector, reduce import excise taxes, and simplify visa regimes in order to perform the development of transport corridors. By this way developed foreign companies will get more chance to enter the market. The ministries of the states of this region need to cooperate more as production sphere in Central Asia is not as developed as in Western countries. It will result as getting a higher profit from natural resources, and the production sphere in the economy will be more elaborated.

Switch to the use of solar energy more as most of the days in the year are sunny, solar energy is one of the best options for producing energy. There should be support from the

government for the businesses that will be based on the use of solar energy. This action will take the load from energy sources and it can cost less for the users.

References

1. AdiAnalytics. Retrieved on 27 of May, 2022 from https://adi-analytics.com/2021/05/28/regional-spotlight-oil-gas-in-central-asia/
2. Dabrowski, M., Batsaikhan, U. (2017). Central Asia - twenty-five years after the breakup of the USSR. Retrieved from https://reader.elsevier.com/reader/sd/pii/S2405473917300429?token=861D0578C7CE09D3CCBBEBF395492042C1186D0F00CBBF2B52B1298C845FA0713B7AC0B45A03CFEDA9DCFFDE51D9C894&originRegion=eu-west-1&originCreation=20211209164847
3. Ezoteriker. Retrieved from https://ezoteriker.ru/znachenie-prirodnyh-resursov-dlya-cheloveka-znachenie-prirodnye/ Retrieved on 8 of December, 2021 from
4. Helming, K., Hamidov, A., Balla, D. (2016). Impact of agricultural land use in Central Asia: a review. Retrieved on 8 of December, 2021 from https://link.springer.com/content/pdf/10.1007/s13593-015-0337-7.pdf
5. Kerimov, I., Gagaeva, Z. (2018). Natural Resource Potential - Basis of Sustainable Development of Chechen Republic. Retrieved from https://www.atlantis-press.com/proceedings/ciggg-18/55915016
6. Kulov, K. (2010). Central Asia Atlas of Natural Resources. Retrieved from https://www.adb.org/publications/central-asia-atlas-natural-resources
7. Organization for economic co-operation and development. (2011). The economic significance of natural resources: Key points for reformers in Eastern Europe, Caucasus and Central Asia. Retrieved from https://www.oecd.org/env/outreach/2011_ AB_Economic%20significance%20of%20NR%20in%20EECCA_ENG.pdf
8. ICTSD. Retrieved on 1 of December, 2021 from https://ictsd.iisd.org/bridges-news/%D0%BC%D0%BE%D1%81%D1%82%D1%8B/news/%D1%85%D0%BB%D0%BE%D0%BF%D0%BA%D0%BE%D0%B2%D1%8B%D0%B9-%D0%BF%D1%83%D1%82%D1%8C-%D1%83%D0%B7%D0%B1%D0%B5%D0%BA%D0%B8%D1%81%D1%82%D0%B0%D0%BD%D0%B0
9. United Nations., (2012). *Land and conflict: Toolkit and guidance for preventing and managing land and natural resources conflict.* Retrieved on 10 of May, 2022 from https://www.un.org/en/land-natural-resources-conflict/pdfs/EU-UN%20Introduction%20and%20overview.pdf
10. Tulyakov, E., (2022*). Economic Development as a Priority in the Development Strategy of Uzbekistan for 2022-2026*. Retrieved on 10 of March, 2022 from https://usnd.to/CzkY
11. Zorya, S., Htenas, A., (2020). *How to create more jobs and reduce poverty in Uzbekistan: Focus on the agri-food sector*. Retrieved on 15 of March, 2022 from https://blogs.worldbank.org/europeandcentralasia/how-create-more-jobs-and-reduce-poverty-uzbekistan-focus-agri-food-sector
12. World Bank. Retrieved on 27 of May, 2022 from https://www.worldbank.org/content/dam/Worldbank/Brief/Europe%20and%20Central%20Asia/central-asia/CAEWDP-Brochure-140807-en.pdf