

## IMPROVEMENT OF THE INVESTMENT CLIMATE IN THE ENERGY SECTOR OF TAJIKISTAN

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**Abstract.** This paper examines the current state of the investment climate in Tajikistan, determining factors, problems, and challenges that have a significant decisive impact on the investment climate and energy sector of the country, by conducting a survey and descriptive analysis. The result of the study identified important determining factors that seriously affect investment, including regulatory, economic, political, and social factors, the most important of which are political stability (risk), taxes, corruption, bureaucratic difficulties, access to infrastructure. The results of our research have shown that the above-mentioned determining factors are the most influential and important obstacles in the process of attracting and implementing FDI investments, which seriously affect the business environment and hinder the process of attracting FDI to the energy sector of Tajikistan. The study identified and confirmed the importance of role above-mentioned determining factors, in improving the investment climate in the energy sector of Tajikistan. **Keywords:** energy, investment climate, business climate, FDI.

**JEL codes:** E22, H54

**Аңдатпа.** Бұл мақалада Тәжікстандағы инвестициялық климаттың ағымдағы жағдайы, сауалнама жүргізу және сипаттамалық талдау жүргізу арқылы елдің инвестициялық климаты мен энергетикалық секторына айтарлықтай шешуші әсер ететін факторларды, проблемалар мен сын-қатерлерді анықтау қарастырылады. Зерттеу нәтижесінде инвестицияларға, соның ішінде нормативтік, экономикалық, саяси және әлеуметтік факторларға айтарлықтай әсер ететін маңызды факторлар анықталды, олардың ішіндегі ең маңыздысы саяси тұрақтылық (тәуекел), салықтар, сыбайлас жемқорлық, бюрократиялық қиындықтар, инфрақұрылымға қол жетімділік. Зерттеу нәтижелері жоғарыда аталған анықтаушы факторлар бизнес-ортаға елеулі әсер ететін және Тәжікстанның энергетикалық секторына тікелей шетелдік инвестицияларды тарту процесіне кедергі келтіретін тікелей шетелдік инвестицияларды тарту және іске асыру процесінде ең ықпалды және маңызды кедергілер болып табылатынын көрсетті. Зерттеу Тәжікстанның энергетикалық секторындағы инвестициялық ахуалды жақсартудағы жоғарыда аталған айқындаушы факторлар рөлінің маңыздылығын анықтап растады.

**Түйінді сөздер:** энергетика, инвестициялық климат, іскерлік климат, тікелей шетелдік инвестициялар.

**JEL кодтары:** E22, H54

**Аннотация.** В данной статье рассматривается текущее состояние инвестиционного климата в Таджикистане, определяющие факторы, проблемы и вызовы, которые оказывают существенное решающее влияние на инвестиционный климат и энергетический сектор страны, путем проведения опроса и описательного анализа. В результате исследования были выявлены важные определяющие факторы, которые серьезно влияют на инвестиции, включая нормативные, экономические, политические и социальные факторы, наиболее важными из которых являются политическая стабильность (риск), налоги, коррупция, бюрократические трудности, доступ к инфраструктуре. Результаты исследования показали, что вышеупомянутые определяющие факторы являются наиболее влиятельными и важными препятствиями в процессе привлечения и реализации прямых иностранных инвестиций, которые серьезно влияют на бизнес-среду и препятствуют процессу привлечения прямых иностранных инвестиций в энергетический сектор Таджикистана. Исследование выявило и подтвердило важность роли вышеупомянутых определяющих факторов в улучшении инвестиционного климата в энергетическом секторе Таджикистана.

**Ключевые слова:** энергетика, инвестиционный климат, деловой климат, прямые иностранные инвестиции

**JEL коды:** E22, H54

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## Introduction

This paper examines the determining factors, problems, and challenges that have a major decisive impact on the investment climate and energy sector in Tajikistan by conducting a survey and descriptive analysis. The results of the study revealed important determining factors that seriously affect this sector and the need to improve the quality of regulatory and legislative acts, decision-making, and the importance of creating modern electronic systems that give a clear idea of the situation and improve the investment process, and eliminate bureaucratic difficulties, red tape, corruption, and others. "A reduction in global investment in renewable energy sources combined could jeopardize the expansion of the use of clean energy needed to achieve energy security, climate, and clean air goals. While we would need these investments to grow quickly, we are disappointed that they may fall over time" (*Fatih Birol, IEA's Executive Director*).

Chairman of the Advisory Council on improving the investment climate, President of the Republic of Tajikistan Emomali Rahmon noted the importance of improving the investment climate and attracting investment in the national economy, especially in the energy sector, and instructed to take measures to address several problems that discourage potential investors that they need guarantees and transparency in their attitude to the implementation of investments in the sectors of the national economy. It is important to emphasize that Tajikistan, in the course of improving the investment climate in the energy sector, will be able to attract both foreign and local investments to solve the tasks set by exporting its electricity to foreign markets. For this reason, foreign investors are most often potential investors in the hydropower sector of Tajikistan. The most effective way to attract foreign investment is to contribute business climate, transparency of the process, guarantees, and support for investors (*State committee of investment and state property of the Republic of Tajikistan, 2019*).

An important principle is attracting FDI for the development of any country's economy. On a par with other countries, Tajikistan is interested in attracting investment. Due to the availability of

sufficient hydropower resources and opportunities for the development of hydropower, the country has attracted significant inflows of FDI in the hydropower sector over the past decade, which has contributed to the country's economic development. Today, energy plays an important role in achieving sustainable growth and energy independence in Tajikistan.

This article examines the current state of the investment climate, determining factors, problems, and challenges, that have a significant decisive impact on the business climate, investment climate in the energy sector of Tajikistan, by conducting a survey and descriptive analysis.

This study highlights the importance of improving the investment climate in Tajikistan, based on the analysis of the current situation and significant factors that are determined to attract investment in the energy sector of Tajikistan to develop the country. The results obtained in the course of our research will describe the current situation and show how it can be improved in the future for developing countries by coordinating and making the right decisions to improve the investment climate associated with the energy sector. It contains recommendations and suggestions for relevant agencies to improve the investment climate and energy sector in Tajikistan. The focus is to substantiate FDI relevance in Tajikistan, for hydropower. In doing so, we will examine each of the following points:

- the current economic situation in Tajikistan, which is a necessary element that affects attracting FDI to Tajikistan,
- foreign direct investment in hydropower development
- FDI in Tajikistan and the Central Asian region.
- significant determining factors for FDI

By studying the above provisions, we can understand the inflow of FDI and difficulties faced by investors, as well the reasons for the lack of investment in the energy sector of Tajikistan in the current situation, considering specific economic, social, and political factors, that affect the level of FDI in hydropower, and identify existing barriers-determinants and factors faced by investors.

After analyzing each of the provisions mentioned above, we can come to a

conclusion and useful progress, expecting a further improvement of the investment climate in the field of hydropower.

- Favorable business climate makes a positive impact on the increase of FDI in hydropower in Tajikistan.

- Political stability (risk), taxes, corruption, bureaucratic difficulties, infrastructure is extremely determinant for attracting foreign direct investment in Tajikistan.

Starting in the 1970s, when the world began to develop rapidly, and capital increased, it became necessary to find a general theory of FDI. However, by the end of the second half of the '80s, it became apparent among explication researchers that some individual theories and approaches were not sufficient as a whole (*Cantwell, 2000*). For all attempts to implement the existing theory of explaining FDI, the eclectic theory implemented by Dunning (1980) defined as an effective representation of FDI for multinational firms. This theory is a combination of various theories of FDI (O-L-I): "o" - the benefits of ownership, "l" - the benefits of location, and "i" - the benefits of internalization. While the current theory is a basic system from the study that explains the use of various theories in connection with the other hand, the current theory weakly defines barriers which are more important in attracting FDI.

Other researchers argue that "the eclectic theory is not a theory, but a paradigm" (*Cantwell, 2000*) or "the tax theory of other determinants of FDI" (*Ithaca, 1991*). The determinants of FDI are defined by destination, localizing o-L components, and taking into account the growing impact of choosing the location of FDI in the country chosen for investment. According to the current research, three aspects have

identified that influence the choice of location for FDI: the "endowment effect," which means access to cheap labor or natural resources; "agglomeration effect," indicating "the location of the firm in the same region"; and further "results related to this policy," confirming the influence of political interference and institutions on the location decision. This study highlighted the significance of the effect of the chosen exchange rate, supporting the relevant sector following the decision-making process for FDI placement (*Dunning & Lundan, 2008*). This theory is more appropriate for Central Asian countries that have the potential for sufficient resources. It defines as an effective representation of FDI for multinational firms in the region.

Central Asia, located in the Central part of Eurasia, is an important region from an economic and geopolitical point of view, consisting of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, with a total population of 59 million, with an educated workforce, energy and natural resources, accessible technological infrastructure and great development potential. Due to the Soviet Union destruction in 1991, gaining independence, country of the region faced serious problems, such as weak integration into the world economy, the inconsistency of their centrally planned economy with the market economy, differences in infrastructure and trade between countries, and slow implementation of reforms to match local economies of the world market economy. The gradual implementation of reforms and measures in the countries of the region has led to tangible results, such as favorable business conditions, an improved investment climate, which has contributed to new FDI investments and economic development.

**Table 1 – Central Asian Country Information**

| Country          | Surface Area | Population | GDP, bln | GDP per capital | GDP growth, % |
|------------------|--------------|------------|----------|-----------------|---------------|
| Kazakhstan       | 2,725        | 18,5       | 181,6    | 9,030,3         | 4,1           |
| Kyrgyzstan       | 200          | 6,4        | 8,2      | 1220            | 2,7           |
| Tajikistan       | 141          | 9,3        | 8,3      | 801             | 6,1           |
| Turkmenistan     | 488          | 5,9        | 45,2     | 7,356           | 6,2           |
| Uzbekistan       | 447          | 33         | 57,7     | 1,504           | 5,9           |
| All Central Asia | 4,001        | 73,1       | 301      | 2038,809,3      | 25            |

Source: World Bank, 2019

Foreign investment began its rapid development and stimulation of the oil industry in the mid-90s. Because it is the main component in the energy sector of Kazakhstan, all gas produced on the territory of Kazakhstan accounted for by four major gas producing companies. Of the total volume of gas produced, 20 percent is owned by the State-owned company KazMunayGas, and three foreign consortia locate the rest: "Agip Kazakhstan North Caspian operating company" and "Karachaganak integrated operating company," "Tengizchevroil." The state is interested in actively attracting foreign investment and improving the business climate (*Energy Information Agency, 2009*).

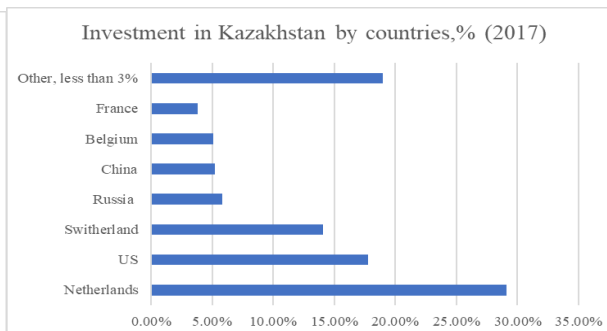
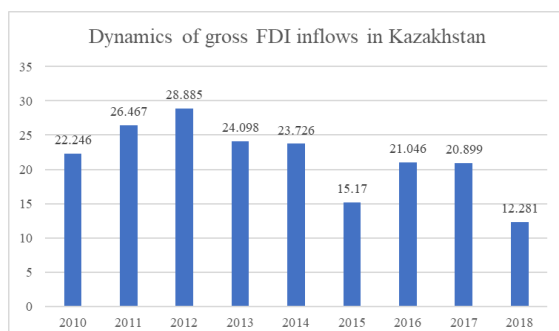
Two main laws define cooperation between a foreign company and the state in Kazakhstan: "the Law of the Republic of Kazakhstan on oil," and "the law on subsoil and subsoil use" (2008). That is, a license issued by the state is equivalent to the rights and regulations acquired by the investor for subsurface use or concessions. The state issues this license after a contract between the Ministry of energy and mineral resources and the producer company (a foreign company). Both of these laws are complementary to each other and regulate the entire process of attracting investment in

the oil and gas sector (energy) Kazakhstan (2008).

Thanks to the measures taken, gas production in Kazakhstan reached 50 billion cubic meters, which is 20 billion cubic meters more than in previous years. It contributes to Kazakhstan's entry into the foreign markets of Russia and China. As a result, a promising gas pipeline project built connecting Russia and China's Shanghai, through which Kazakhstan exports 25 billion cubic meters of gas annually.

The above provision States that an important and priority component of attracting foreign investment in the energy sector of Kazakhstan is the oil and gas industry since potential foreign companies are interested in investing in this industry.

The Ministry of energy presents an improved version of the environmental code that meets the OECD standards. To date, 11 free economic zones have organized across the country, within which about 170 projects implemented, where investors offered a reduced corporate tax of 100%, i.e., zero tax, property tax 0, Value Added Tax for suppliers. Starting from 2005 to 2018, the gross inflow of FDI to Kazakhstan amounted to 277 billion US dollars, while the growth rate of the gross volume was 15.4%, which is 12.3 billion US dollars.



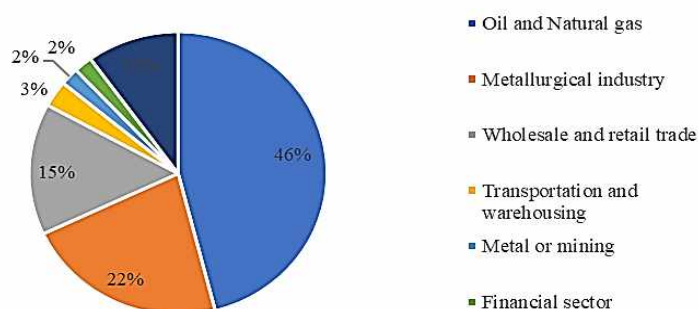
Source: World Bank, National bank of Kazakhstan

Figure 1 – Dynamic of FDI inflows in Kazakhstan

As of 2018, were attracted investments in the amount of 3.45 billion US dollars were implemented were 29 projects. Created 8

volume jobs were 6 of which are TNK (604 million US dollars) and created jobs for 1,300 people.

Foreign Investment in Kazakhstan by sector in 2017



Source: World Bank, National bank of Kazakhstan

Figure 2 – Foreign Investment in Kazakhstan by sector in 2017

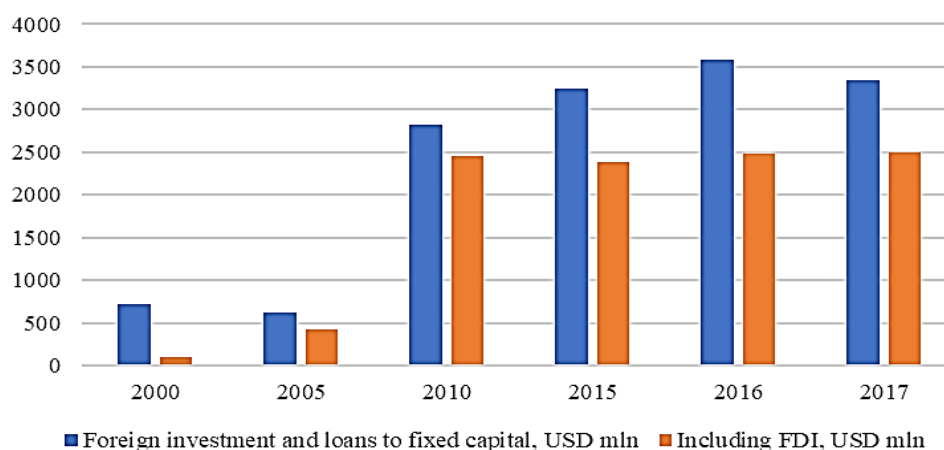
Investments in the oil and gas industry of Uzbekistan in 2016 amounted to about 2.8 billion dollars. The key investors in the energy market of Uzbekistan are Russian company LUKOIL and Chinese CNPC. Investments in the development and modernization of the oil and gas industry in 2016 increased by 8% compared to the results of last year to 2.798 billion dollars, according to the state statistics service.

In the structure of capital investment sources, out of the total volume, foreign investments and loans amounted to \$ 2.104 billion, funds from the national holding company (NHC) Uzbekneftegaz — \$ 216.3

million, loans From the Fund for reconstruction and development of Uzbekistan — \$ 303.5 million, loans from Uzbek banks — \$ 172.4 million.

Providing comfortable conditions for foreign investors on taxation and regulation of investment processes such as guarantees for new enterprises with an investment of more than 50 million us dollars will be valid for up to 10 years. Adopted measures helped to increase investment and loans in 2017, around 2 348,2 million dollars, and a decline of 6.4% the set value and increase average 35% (State Statistic Committee of Uzbekistan, 2018).

Dynamic of foreign investments in Uzbekistan



Source: State Statistics Committee of Uzbekistan

Figure 3 – Dynamic of foreign investments in Uzbekistan

In particular, the Russian company LUKOIL in 2016 invested 879 million dollars in the implementation of two separate production agreements (PSAs) in Uzbekistan, with a total value of more than 8 billion dollars. Chinese CNPC has started

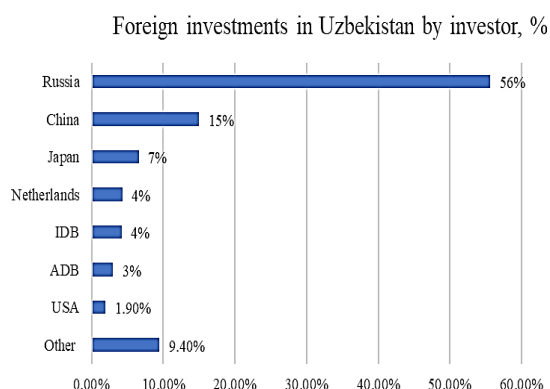
construction of the fourth line of the Uzbek section of the Central Asia-China gas pipeline at a total cost of 800 million dollars. Uzbekneftegaz has implemented a project to upgrade two fields in the Kashkadarya region (South of the country) at the cost of \$ 294



million and continues to modernize the Mubarek gas processing plant at the cost of \$ 437.4 million.

The only company that exports gas from Uzbekistan is NHK "Uzbekneftegaz." its capacity allows for the production of natural gas in the amount of about 70 billion cubic meters and liquid hydrocarbons in the

amount of 8 million tons per year. In addition to Russia and China, the following countries and international organizations carry out investment activities in various sectors of the economy in Uzbekistan: Japan, the Netherlands, the United States, the IDB, and the ADB.



Source: State Statistics Committee of Uzbekistan

**Figure 4 – (a) FDI by the investor; (b) Foreign Investment by Industry of Uzbekistan in 2017**

FDI in the energy sector of Turkmenistan regulated under the law "on foreign investment" and the law "on joint-stock companies." FDI in Turkmenistan regulated under the law "on foreign investment" and the law "on joint-stock companies." Potential investors in the energy market of Turkmenistan are China (39%) and Russia (16%), Canada (9%), and the Persian Gulf countries (12%). Over the past ten years, from 2010-2020, the oil and gas industry has attracted 10 billion dollars of foreign investment (ADB, 2016).

As a result, domestic and foreign investments have successfully implemented several projects for the construction of new enterprises, modern production facilities, and facilities. Among them are a polymer plant in Kiyanli and a plant for the production of gasoline from natural gas in the Akhal region. As well as the Turkmenistan-China gas pipeline, the annual volume of gas supplies through which is approximately 30 billion m<sup>3</sup>/year.

In particular, more than 3.2 million tons of oil and gas condensate, and about 25 billion cubic meters of natural gas produced in January-April 2020. More than 650 thousand tons of automobile gasoline was produced, which is almost 90 thousand tons more than in the same period of 2019.

Production volumes of diesel fuel amounted to more than 600 thousand tons, polypropylene 28.6 thousand tons, liquefied gas more than 70 thousand tons (State Statistics Committee of Turkmenistan, 2019).

The dominant position in the energy sector of Kyrgyzstan belongs to hydropower. About 95% of the electricity generated in Kyrgyzstan is accounted for by hydroelectric power stations. The number of HPPs generating electricity is 15 units, with an average annual electricity generation of 12 billion kilowatts, and a power system capacity of 3135 MW. With large Hydropower resources to date, no significant investment has attracted.

The entire energy sector is in the balance of the state. One company is engaged in power supply: JSC "National electric network of Kyrgyzstan." All consumers provided with electricity, but in winter, the load on the power system increases three times since all power equipment has been working since Soviet times, and 60% of them have exhausted their resources. At the moment, measures are being taken with donor countries and Russia to attract investment of 4 billion us dollars, for the reconstruction of the power supply system, and the construction of Kambarat

HPP-2, in Kyrgyzstan. The oil and gas producing, distribution companies in Kyrgyzstan are the Russian company "Gazprom" and the Kyrgyz company JSC "Gazprom of Kyrgyzstan." The main investor in the oil and gas sector of Kyrgyzstan is Russia, which invested \$ 38 million in 2013 and has invested \$ 600 million in the oil and gas industry of Kyrgyzstan over the past 25 years.

As noted in Chapter 2.3, Adhering to the National development strategy (NDS) of Tajikistan for 2016-2030, the government has taken certain measures to ensure strategic initiatives by attracting FDI and building new energy facilities that ensure the country's energy independence, as well increasing the country's energy capacity to 10 TWT by 2030. As a result, were achieved current measures:

During 2005-2015, about 3.5 billion USA dollars attracted to the energy sector of Tajikistan. Priority areas of investment in the Tajik economy are an investment in hydropower, construction of hydroelectric power stations, power transmission lines, conversion substations, the introduction of new energy-efficient technologies. Active investors in the energy sector are Russia, Iran, China, and India, which have invested in production, transmission, energy infrastructure reconstruction, and energy metering systems.

Within the framework of attracted FDI, were built and put into operation following energy facilities: In 2009, a 500 kV South-North transmission line commissioned by Chinese investment. The power transmission line is one of the components of the regional power transmission network that connects the southern and northern parts of the power system of the Republic of Tajikistan, providing reliable power supply to the Sughd region.

June 31, 2009, with an investment of 720 million US dollars, the Russian Federation built the Sangtudinskaya HPP-1, with a capacity of 670 MW, consisting of 4 hydroelectric units. With a stone-earth dam on the Vakhsh River, which provides about 900 MWh, or 15 % of the total electricity generation consumed in the Republic of Tajikistan (*Barki Tojik, 2017*).

April 26, 2013, with an investment of 180 million US dollars, the Islamic Republic of Iran, built the Sangtuda HPP-2, with a

capacity of 220 MW, consisting of 2 hydroelectric units. It constructed on Vakhsh River, with capacity 300 MWh, or 6 % of the total electricity generation consumed in the Republic of Tajikistan.

In 2011, it put into operation a 220 kV interstate power transmission line between Tajikistan and Afghanistan using modern technologies. This line will allow exporting electricity from Tajikistan to Afghanistan in summer and will help to export excess electricity from Tajikistan to neighboring countries. In 2015, the 220 kV Kairokum - Asht transmission line with a length of 74.3 km put into operation in the Sughd region.

This transmission line supplies electricity to residents from the Karakum HPP of the Asht district. Through this transmission line, consumers of Asht district join the unified energy system of Tajikistan, construction of substations "Shakhrinav-220 kV", "Gissar-110 kV", "Nurek-220 kV", using modern energy-efficient technologies, gas-operated switches, and effective relay protection system.

Introduction of a Billing system, delivery and installation of 250 thousand new electronic meters, electricity readings, an auditable billing system in Dushanbe, Khujand, and other districts and cities, rehabilitated high-voltage networks, including the supply and installation of equipment. Also, cables, transformers, and substations rehabilitated. The measures mentioned above have contributed to the development and renewal of e energy sector, reduced the load on the power system, reduced technical losses of electricity from 18% to 11%, reduced theft and non-payment for consumed electricity, improved the automated system of protection of the power system (*MEWR RT, 2017*).

### Material and methods

After gaining independence, Tajikistan began to shape the state system and economic policy. The transition from a planned economy to a market economy, thereby integrating into the world economy, has helped shape the priorities and directions of the state development strategy and the need to reduce barriers to trade and investment. Given the location of Tajikistan in the region and the lack of natural energy resources (oil, gas), the Government has focused on the development of hydropower,

as the main priority for economic development. The development of hydropower, as well as the construction of HPP, requires large investments.

Given the investment intensity of this sector, Tajikistan attaches great importance to the promotion of FDI in the energy sector by granting legal and legislative privileges, giving priority to both foreign and local investors. However, the position of attracted FDI in Tajikistan remained low. Due to the lack of proper monitoring of the determining factors, such as bureaucratic difficulties, corruption, taxes, political instability, incomplete legal framework and legislation, which become the cause of unattractiveness and deterioration of the investment climate (GCI RT, 2018).

At the 20th meeting of the Advisory Council on improving the investment climate, PRT Emomali Rahmon noted importance and timeliness of measures on "Doing business," modernization of public services for business using electronic documentation, simplification of business activities and ensuring a favorable investment climate in the country's economic sectors for both foreign and local investors" (2020).

Effective functioning and development of economic systems imply economic and political stability, a stable financial and credit system, the availability of an appropriate regulatory framework that regulates the entire investment process. For a comprehensive analysis of the conditions for the rational use of investments in economic science and practice, the category of the investment climate used. Its generalized characteristic of the aggregate, processes of investment regulation, economic, political, legal, social prerequisites, and determining factors that presuppose the attractiveness and feasibility of investing in a particular country's economy (Vdovin, 2004).

Further down in the research conducted by different researchers, the discussion focuses on two main understandings: the understanding of modernization and the understanding of dependency. The understanding of modernization-it explains that FDI promotes the development of the economy, focusing on the fact that the development of the economy requires investment (Samuel, 2009). According to new theories: due to the lack of proper social, political, and economic

stability in developing countries, FDI is a mechanism that contributes to their economic growth, through the transfer of new know-how, technology, management and marketing skills, and access to open financial markets (Mohammed, Shujaat, 2011).

From another point of view, the concept of dependence theory explains, that FDI does not always have a positive effect, explaining that it makes a country dependent on a foreign investor, takes under its monopoly industry and economic sectors, becomes a strong monopolist of the domestic market, and a serious competitor for local investors in the country (Bornschier, 1985; Samuel, 2009). Therefore, the necessary relevant sectoral data selected based on previous studies of determinants factors of FDI in renewable energy sources. Some of the factors that grouped in the literature review process divided into four criteria: the regulatory investment process (institutional environment), the macroeconomic environment, the social environment, and the renewable energy policy that will be subject to research and interpretation of the results.

Necessary to study this problem and find the existing determinants and barriers, their impact in the energy sector, through the development of certain recommendations and proposals and calculations to improve the investment climate in the energy sector in order to create a favorable climate for the active involvement of FDI in this sector as the main driver of the development of the national economy (NDS, 2016).

Several studies emphasize the importance of FDI for economic development, and important determinants that seriously affect the future course of the investment. According to Kaygusuz, hydropower is a type of energy source that is growing very fast all over the world and considers an important mechanism of development of the economies of developing countries (Kaygusuz, 2004). Besides, certain factors that promote FDI, such as affordable-developed infrastructure, market size, contributing factors (regulating the investment process), access to certain markets with developing countries, developed countries are more attractive to FDI. In the era of globalization, the importance of FDI has grown significantly and has become the main driver of the



world's economies (*Rahman, 2008*).

According to international experience, the following main profitable to the national economy: 1. increase the level of competitiveness, 2. increases the level of people's knowledge skills, 3. introduces new technologies, 4. integrates the economy, 5. a convenient position for the development of enterprises. In General, it is fundamental to notice that FDI gives a good impetus to the development of the national economy (*OECD, 2002; Moura, Forte, 2009*).

It is important to note that, along with the positive effects of FDI, it also negatively affects the growth of the national economy, covering more and more the market, natural resources, qualified human resources, thus as a potential competitor, limit the opportunities and scope of activities of local investors (*Eller, Haiss, Steiner, 2005*). Given the current situation, it is fundamental to notice that this position of FDI is most useful for countries with developed economies and rich capital (*Beugelsdijk, Smeets, Zwinkels, 2008; Blomstrom, 1992*). In countries with low levels of development and high levels of poverty, the positive impact of FDI is very small (*Kevin, Zarsky, 2006*).

Researchers hold the view that if human resources are properly knowledgeable and properly qualified, this contributes to the positive FDI effect on a sovereign country (*Borensztein, 1998*). Nevertheless, along with the positive factors that affect FDI, some factors hinder and repel FDI from countries, such as political instability in the country, bureaucracy, and imperfect legal acts that create barriers to property rights (*Ali, Fiess, MacDonald, 2011*).

The most important factors that FDI investors pay serious attention to before investing are insufficient security, changes in leadership or political regimes, conflict (political instability), high levels of corruption, the size of market sales (economic instability), available infrastructure, and the level of human resources. These factors have a serious impact on investors' decisions for further investment in the country (*Tatoglu, 2002*).

Also in a study on the impact of factors on renewable energy sources development on FDI distribution, in comparison with traditional determinants focused on wind energy in developing countries, it was shown

that the main factors affecting the development of renewable energy sources included the level of corruption, taxes, infrastructure, market, price stability, and access to Finance (*Kelli, Ikeda, 2017*).

In the article "foreign direct investment Economics: investment incentives," it is noted that foreign investors, as well as large companies, invest in countries where the level of real income, market size, qualifications and skills, secure infrastructure, political and economic stability are important. As well as the investment incentive of a country, it considered important for companies to make decisions about investing FDI (*Blomstrom, Kokko, 2003*). The article "FDI in Nigeria" discusses the ways to attract more FDI by reducing barriers that regulate the flow of investment.

At the same time, they consider it important that their government provides sufficient political and economic stability, as well as normal infrastructure in the country. In this regard, improve accountability and transparency of government decision-making, because these are the barriers that can prevent foreign investors from investing or not investing in the Nigerian market. Furthermore, as a result, assuring foreign investors about the high barriers, such as reducing import or export duties, taxes, and other components, attracting more investment to the economy would be possible (*Adeleke, Olowe, Fasesin, 2014*). Important factors (*Soytas, 2008*) that will interest or repel investors before investing are insufficient security, changes in leadership or political regimes, conflicts (political instability), high levels of corruption, the size of market sales (economic instability), the availability of infrastructure and human resources, regulatory assistance to investors, and market activity, which have a serious impact on investors' decisions about further investments in the country. (*Soytas, 2008*) A study analyzed the data from 38 developing countries and identified that GDP growth rates, tax rates, and affordable infrastructure were important factors in FDI attracting (*Demirhan, 2008*).

Research on the determinant of the cross-country distribution of FDI in developing countries has shown that it is closely related to political risks and GDP. Political risks include changes in government, unrest, violence, and politically

motivated strikes (*Edwards, 1990*). Analyzing FDI inflows and the impact of political risks from 1984 to 2003 in 83 developing countries, it found that corruption, government stability and accountability, bureaucratic mechanisms, and the quality of law enforcement agencies are strong determinants of FDI (*Busse, Hefeker, 2007*). In emerging economies, the quality of law enforcement and bureaucracy are strong determinants of FDI (*Campos, Kinoshita, 2002*). It is important to note that administrative barriers, as well as the slow process of establishing a company, are some of the important barriers to FDI (*Dumludag, 2009*). Jongwanich has studied the determinants of FDI in the energy sector in Bangladesh by collecting data in a semi-structured way and found that important barriers in the energy sector are access to infrastructure, market size, political stability, taxes, employee insurance, wages, access to resources and land. By examining the determinants of FDI in wind power and environmental investment (including investment in renewable energy sources), it found that tax measures, regulations, and regulatory support policies (including guarantees of access to local electricity networks and standards) are serious determinants and have a strong influence on investors' decisions (*Murovets, 2012; Keeley, Ikeda, 2017*).

Conducting semi-structured interviews and seminars on how investors perceive barriers to investing in clean, renewable energy and energy infrastructure, he identified that policy effectiveness, restrictions on auxiliary infrastructure, electricity networks, transport infrastructure, and overall management and regulation are major barriers (*Jones, 2015*). Focusing on Romania, the study of investment determinants-barriers of FDI for renewable energy identified the following categories of barriers-determinants, administrative (regulatory), economic, corruption, lack of transparency of processes, obtaining permits, access to electricity infrastructure, technical and technological barriers (*Pillogea, 2011*). Studies on certain policies to promote and support renewable energy sources based on the experience of various countries concluded that priority of access to electricity networks (technical and technological difficulties), preferential tariff, auction, and

bureaucratic procedures play an important role in promoting FDI in renewable energy sources (*Kang et al., 2020*).

Based on the research mentioned above and literature on the importance of FDI and determinants-barriers in the economic sector, as well as on renewable energy, where investors often face difficulties (determinants), these determinants grouped into four parts, such as the regulatory perspective (investment process), economic, social and political perspectives, which are subject to study in this paper. As a result of the current study, it is necessary to identify the determinants that hinder investment attraction and negatively affect FDI and the investment climate in the energy sector of Tajikistan.

### Methods

This survey is based on a qualitative method, using primary data by collecting views of both foreign and local investors in the energy sector. A questionnaire used to research and analyze the current situation of FDI in the hydropower sector of Tajikistan, determinants, and difficulties, barriers that hinder. The questionnaire was prepared using data from previous research in this area and grouped according to the following factors that regulate the investment process: the economic component, the social component, and the political component.

Structured interviews were conducted with domestic and foreign investors in the hydropower sector to determine whether local domestic investors and foreign investors face similar barriers, difficulties, and determinants in this sector. Compiled data from the survey is encoded, and for each factor, five possible answers compiled, the collected data is analyzed, and their result will confirm and answer our research questions and hypotheses.

The survey conducted with representatives of foreign and domestic investment companies working in the energy sector of Tajikistan. In total, 52 HPP's are currently operating in the energy sector of Tajikistan, with total capacity about 5900 MW. Where 14 HPP's are of medium and large capacity operate year-round, and 38 HPP's are small capacity, but this number of small HPP's only 20 HPP's operate year-round. The remaining 18 HPP, from among the small HPP, operate and produce

electricity partially, that is, only in the full-water seasons of the year, starting from March to October. This is primarily due to the level of water runoff in rivers, especially in cold and winter seasons, when rivers freeze and water level in rivers decreases, which is the reason for their seasonal operation, and small electricity production in the winter. Out of the total number of HPP, was interviewed 34 respondents from each HPP.

From August 5 to September 27, 2019, data collected from 34 respondents consisting of the Chairman, Managing Director, and Directors of the branch of the investor's company, who directly implemented and managed the investment process. The survey conducted starting from August 5-15, Districts of Republican Subordination, August 16-21, Sughd region, August 22-30, Khatlon region, September 6-26, GBAO. A targeted sampling method selected for data collection. Samples of basic questions asked to respondents conducted as follows: (I) what is the main profile of your company; (II) in your opinion, how important is FDI in the energy sector of Tajikistan; (III) what are the strategic factors, that influenced your investment in the energy sector of Tajikistan.

The survey questions were designed to understand the structure and content of the questions, as well as the direction of their

activities in this sector. Respondents should describe the importance of their investments in the energy sector in Tajikistan, as well as the main determinants-factors that affect their investments and activities in the energy sector in Tajikistan. Based on research and literature in this area, questions have been grouped in such a way, to identify the determinants (factors) that affect the entire FDI process, which allowed us to understand the current situation by analyzing and identifying the main influencing factors, that are crucial for the energy sector.

Respondents answered the questionnaire on the Likert scale of 1-5, respectively corresponding as follows: 1-"not at all important," 2-"Slightly important," 3-"Fairly important," 4-"Very important," 5-"Extremely important." For the convenience of data analysis, the comparison of the significance of group determining factors of FDI according to the size of HPP (small, medium and large) divided: not at all important = 1-1.69, slightly important, 1.7-2.39, Fairly important = 2.4-3.09, very important = 3.1-3.79, extremely important = 3.8-4.5. For the analysis of qualitative data, grounded theory was used, as well as numbering for various concepts and topics for three groups of enterprises: large, medium, and small, containing 29 factors (Table 3).

**Table 2 – Structure of respondents**

| № | Firm size  | Power MW     | Position of the respondent of a power company | Quantity of respondent |
|---|------------|--------------|---|------------------------|
| 1 | Large HPP  | More than 50 | Chairperson                                   | 3                      |
|   |            |              | Managing Director                             | 5                      |
| 2 | Medium HPP | 25~50        | Managing Director                             | 6                      |
| 3 | Small HPP  | 25           | Director                                      | 20                     |

**Table 3 – Factors/ determinants influencing FDI decision making in the Tajikistan energy sector**

| № | Factors  | (1)<br>Not at all<br>important | (2)<br>Slightly<br>important | (3)<br>Fairly<br>important | (4)<br>Very<br>Important | (5)<br>Extremely<br>Important |
|---|--|--------------------------------|------------------------------|----------------------------|--------------------------|-------------------------------|
|   | <b>Regulatory investment Process</b>           |                                |                              |                            |                          |                               |
| 1 | Competitive selection process                  |                                |                              |                            |                          |                               |
| 2 | Presence of government guarantee               |                                |                              |                            |                          |                               |
| 3 | Government's commitment to enforcing contracts |                                |                              |                            |                          |                               |
| 4 | Power Supply control                           |                                |                              |                            |                          |                               |
| 5 | Land acquisition/rent/lease of land            |                                |                              |                            |                          |                               |
| 6 | Construction permit                            |                                |                              |                            |                          |                               |
| 7 | Protection of investors Act                    |                                |                              |                            |                          |                               |
| 8 | Property registration and protection           |                                |                              |                            |                          |                               |
| 9 | Tax exemption                                  |                                |                              |                            |                          |                               |
|   | <b>Economic</b>                                |                                |                              |                            |                          |                               |

|    |   |  |  |  |  |  |
|----|---|--|--|--|--|--|
| 10 | Skilled labor   |  |  |  |  |  |
| 11 | Availability of infrastructure  |  |  |  |  |  |
| 12 | Financial facilities  |  |  |  |  |  |
| 13 | Credit facilities   |  |  |  |  |  |
| 14 | Road network  |  |  |  |  |  |
| 15 | Price (tariff) regulation   |  |  |  |  |  |
| 16 | Wage and other returns  |  |  |  |  |  |
|    | <b>Political</b>  |  |  |  |  |  |
| 17 | Control of corruption   |  |  |  |  |  |
| 18 | Accountability of public officials  |  |  |  |  |  |
| 19 | Coordination and collaboration between ministries                           |  |  |  |  |  |
| 20 | Capacity to adapt policies  |  |  |  |  |  |
| 21 | Bureaucratic difficulties   |  |  |  |  |  |
| 22 | Political stability   |  |  |  |  |  |
|    | <b>Societal</b>   |  |  |  |  |  |
| 23 | Stable income and accountability of citizens                                |  |  |  |  |  |
| 24 | Regulation on the qualification of personnel who supervise the construction |  |  |  |  |  |
| 25 | Protection of property rights   |  |  |  |  |  |
| 26 | Regulation on subsidy for consumers   |  |  |  |  |  |
| 27 | Workers' insurance  |  |  |  |  |  |
| 28 | Human capital /skilled labor  |  |  |  |  |  |
| 29 | Wage and other returns  |  |  |  |  |  |

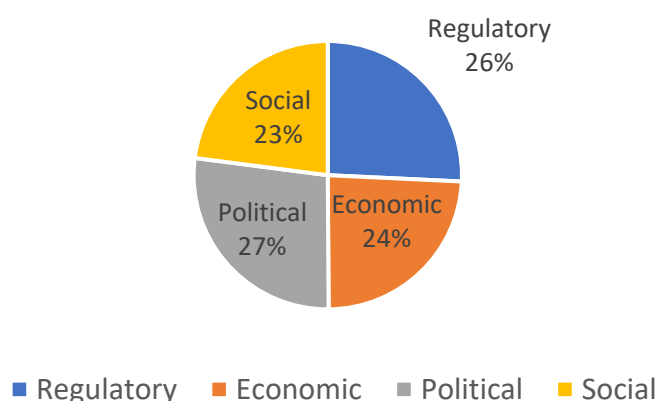
### Discussion

Potential participants in the energy market (sector) of Tajikistan, is Foreign investors who invested in the energy sector, with whose representatives conducted a survey. By their national character, they belong to such countries as Russia, Iran, China, India. The share of electricity produced by their companies is about 30 percent of the total power produced in the country. The remaining share of generated power-electricity is accounted for by local investors, investing in small HPP, which produces 10 percent of total power-produced electricity in the country. Furthermore, the remaining 60 percent of electricity generated

by HPPs, which are on the balance of the state.

The analysis of the current study showed the following results:

According to the results of the study presented in, the average values of determining factors of FDI for Large HPP, sizes are primarily 27 percent more inclined to the importance of factors of Political stability and 26 percent more inclined to factors Regulating the investment process. Factors of an economic nature estimated at 24 percent, and factors of a social nature estimated at 23 percent.



Source: Author survey

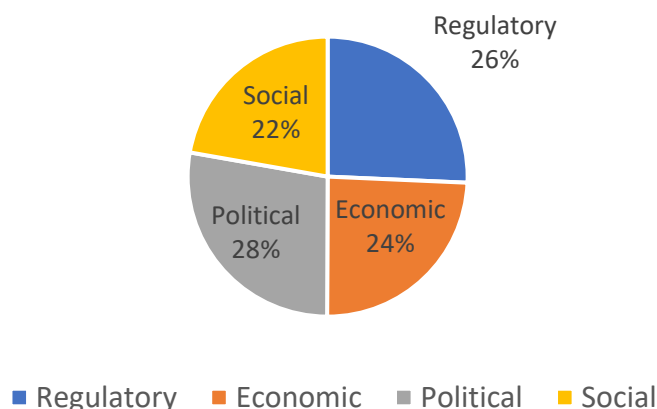
**Figure 5 – Mean score of determinants categorized by area for Large HPP**

The average values of the determining factors of FDI, for Medium size of HPPs, with a small change, have a similar significance

as in. According to the results of the study presented, 28 percent of respondents are inclined to the importance of Political factors

and 26 percent to factors that Regulatory the investment process. Economic factors an

estimated at 24 percent, and Social factors are estimated 22 percent.

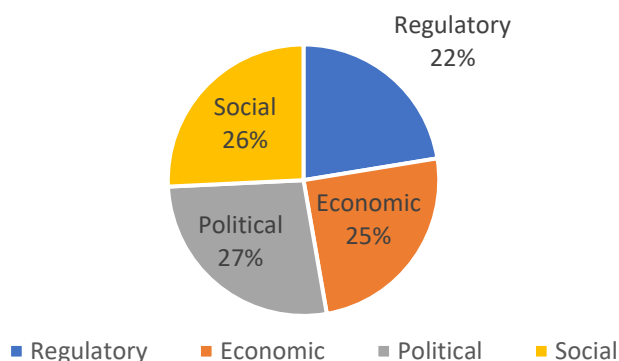


Source: Author survey

**Figure 6 – Mean score of determinants categorized by area for Medium size HPP**

For Small hydroelectric power plants the most important is the importance of determining factors of FDI, such as 27 percent of respondents are inclined to the importance of political factors, 26 percent

consider social factors important, and in third place, 25 percent attach importance to economic factors. Regulatory factors estimate the investment process at 22 percent.



Source: Author survey

**Figure 7 – Mean score of determinants categorized by area for Small size HPP**

According to the results of the study presented in, the average values of FDI determinants for three groups: Large, Medium and Small-sized of HPPs as follows: for large and medium-sized the size of HPPs, with fewer changes, since the importance of regulatory 26% and 26%, economical 24% and 24%, social 23% and 22%, political 27% and 28%, which have almost the same value, but extremely important values for all three groups of HPPs is a political component, where the percentage shows 27%, 28% and 27% for all three HPP size.

This means that the political component is the most important, and the regulatory factors are the second most important, and the economic and social

factors are the third most important after them. Nevertheless, for Small HPP, the Political 27% and Social 26% determining factors are important, followed by an economical 25% and regulatory factors 22%. Each foreign and local investor, before investing, focusing on political and regulatory norms, the legislative framework for the stable promotion of their investments.

Furthermore, local investors who have invested in small HPP, also consider political factors to be the basis for their successful promotion. And then the social and economic factors that are rated the most important, the regulatory factors are rated an important factor; this is because the state provides them with certain preferences for promoting



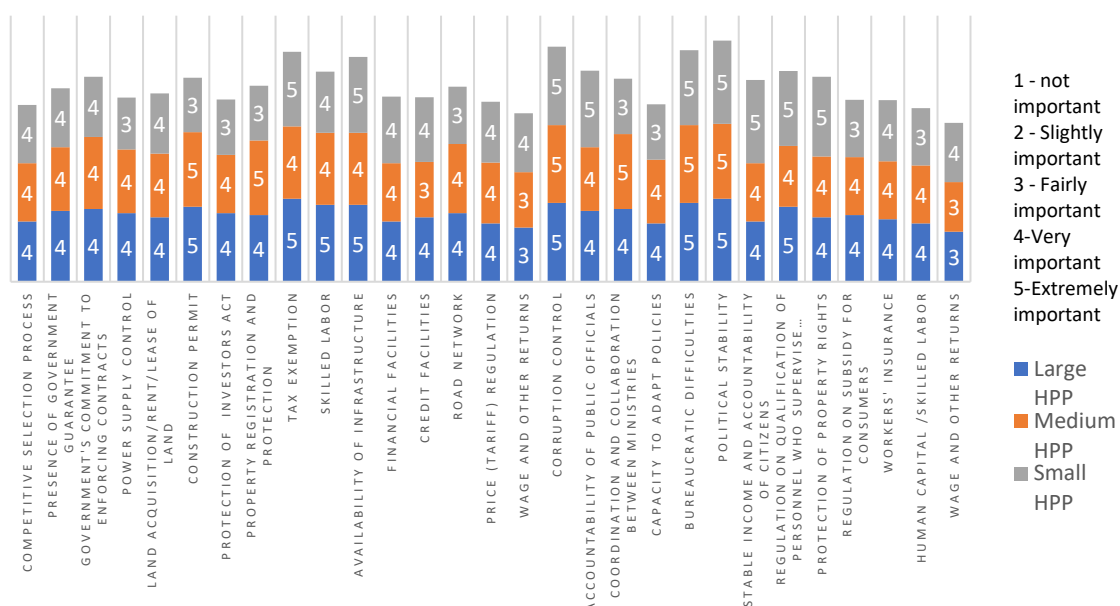
local-private investment and socio-economic development of far-away regions.

As shown in all 29 determinants of FDI analyzed according to the Likert scale on a five-point scale, which determines the further progress of FDI in the energy sector. The result of the analysis showed that for all three groups, analyzing the characteristics of all 29 determinants of FDI affecting investment in the energy sector, it was found that almost all determinants in all three groups of HPP considered fairly important, very important, and extremely important for the promotion of investment activities in the energy sector. As the result of the study shows, the fairly important factor among all are the competitive selection process (tender), the ability to adapt policies, credit mechanisms, price regulation, human capital /skilled labor and wages, and road network (infrastructure).

The very important factors are the presence of government guarantee,

protection of investors act, property registration and protection, construction permit, coordination and collaboration between ministries, qualification of personal, land acquisition/rent/lease, road network, power supply control, commercial facilities, and protection of property rights. In order to successfully and effectively attract and implement FDI investments in any country, including Tajikistan, it is necessary to improve indicators for investment in the energy grid and create a favorable investment environment.

However, the analysis of the results showed, that all respondents consider the following determinants to be extremely important determinants of FDI in the energy sector: tax exemption, infrastructure availability, control of corruption, bureaucratic difficulties and political stability, which determine how to attract and promote investment for both local and foreign investors.



Source: Author survey

Figure 8 – Features of determinants important, on investing in the energy sector

The significant majority of respondents noted that taxes are an important component in promoting FDI in the energy sector. In-country, those companies that have a capacity of up to 1 MW are exempt from taxes and VAT. These measures are part of a tax incentive to attract more private investment. However, this stimulation of processes is not a sufficient measure to solve the tax problem, and it is necessary to

provide privileges for the company regardless of capacity produced by providing tax reforms, such as tax breaks for 15-20 years, which will help the government create more favorable conditions for foreign and local companies reducing their costs. It helps them, on the one hand, reduce electricity tariffs, on the other hand, positively affects the budget of consumers—the measures taken to promote the attractiveness of this

sector for both local and foreign investors.

Also (*Bond, 1996*) studied "Tax reform to promote investment" in Britain, noted that tax reform and removal of tax barriers, the host country concerning FDI, will increase its attractiveness and facilitate business and stable profits, which contributes to the investing company to a more successful promotion, and the host country to successful development.

According to the results of the study, Political stability is rated by all respondents as an extremely important component, a guarantee of the permanence of both local and foreign investments, especially for those who are more focused on current policy in Tajikistan. Since a significant number of FDI projects have long-term investments and large capital investments, in the event of political instability or threats and risks, there is a risk of serious losses in the amount of capital invested. Therefore, it is rated by all respondents as a strategic factor that ensures successful promotion, profit, and security. Certain researchers have studied factors that influence FDI, such as Political risk, which is an important factor against attracting capital or FDI.

As usual, in developing countries, political risks and instability are less noticeable, so investors attach more importance to the current factor that threatens FDI inflows. Political risks are also important for stable countries that invest in countries where the risk of political instability (*Lucas, 1990*). Political and social instability is a basic factor of weak development and low levels of FDI in developing countries. Political stability is also an important determinant and condition for successful business operations and attracting FDI (*Singh, Jun 1995*).

According to the analysis of data conducted with respondents, Corruption in the energy sector of Tajikistan is considered extremely important in the distribution of FDI. On the other hand, it can be seen as an extraordinary tax that negatively affects the efficiency of investment. There are cases, when at the final stage of the project, a group of interested persons, represented by officials, offer their assistance in winning the tender, in return for certain fees. Such actions are blocked by competing groups of individuals or by competing individuals, who insist on the re-conducting tender. It worsens

the transparency of the process and plunges into uncertainty. As a result, a certain group of people associated with influential government officials or bureaucracy, preferring corrupt actions, affects the outcome of tender and award of projects to certain participants.

In the process of reviewing and approving investment projects in ministries and departments, there is a similar case, where in return for their positive assessment of investment projects, officials will require certain bribes from interested investment group or company. Analyzing the relationship between corruption and FDI in the Dominican Republic, he found that there is a clear negative relationship between FDI and Corruption, which affects living standards and also reduces FDI in the host country (*Marcos, 2007*).

Also, other researchers using data from companies and firms that invested in Eastern Europe and the former Soviet Union on the "impact of corruption on FDI" confirm that corruption in host countries is a serious barrier to attracting FDI. They confirm that corruption has a serious impact on FDI flows to the host country (*Kosinskiego, Kraka, Koman, 2012*).

According to data analysis, Bureaucratic difficulties are considered an extremely important factor in attracting FDI to the energy sector. This situation is common in ministries and departments with officials who use their official powers to demand a bribe, which makes it difficult to submit, review, and implement investment proposals. Non-compliance with regulatory laws, lack of proper coordination, and borrowing between relevant ministries and departments create a prerequisite for bureaucratic difficulties for foreign and local investors.

As practice shows, the situation remains the same, lack of accelerated implementation of tasks, slow coordination of actions between relevant institutions, delays in the verification process, the occurrence of corruption actions, becomes a serious problem to the detriment of foreign and local companies. It is a serious obstacle in this direction. If this problem is solved, the inflow of investment in the energy sector can be activated, and the economy will develop.

The study (*Tobias, Andreas, 2007*) on the relationship between bureaucratic

difficulties, corruption and FDI in the host country (post-Soviet countries), confirms the fact that most important factor that creates bureaucratic difficulties and corruption are officials who interpret the legal field in their favor, in order to obtain a bribe. It has negatively affected both: foreign and local investors. They recommend the way to solve this problem: is to toughen penalties for corruption, strengthen the legal framework, increase salaries and create innovative new digital systems for reviewing and approving requests and proposals, which contributes significant reduction of level bureaucratic difficulties and corruption (*Tobias, Andreas, 2007*).

As a result of the analysis show, the Availability of infrastructure is extremely important for FDI inflow in the energy sector of Tajikistan. It is the main artery for exports and imports, equipment, goods, services, and electricity. Lack of or limited access to infrastructure creates serious problems for local and foreign companies and makes it difficult to implement the planned plans within a specified time frame. Providing access to infrastructure for invested companies is an important task for each host country, which can activate or slow down the flow of FDI for the energy sector.

Other studies (*Carol, Nelson, 2016*) on the Impact of infrastructure development on FDI in Kenya found that water infrastructure, transport infrastructure, communications infrastructure, sewerage, and water supply infrastructure, and exchange rate, have positive effects on FDI inflows. One important infrastructure is energy infrastructure, which has a significant positive impact on FDI inflow to the Kenyan energy sector (*Carol, Nelson, 2016*).

As shown in data obtained comparing significance group factors of FDI by HPP size, according to a five-point Likert scale shows that Large and Medium-sized HPP, presence of Political and Regulatory factors is extremely important. Economic and Social factors are very important (Table 3). Because potential investors of these companies are foreign investors, and HPP data according to their feasibility studies are very capital-intensive and requires huge financial and technical investments. Same time, very sensitive to political risks and instability. Furthermore, the whole process of successful promotion and regulation of

investments, very important for investing a company, that has planned to invest for a certain time in advance and receive dividends. The extreme importance of the groups mentioned above factors, due to the fact, that in the event of unstable Political situation and an unhealthy regulatory environment that regulates the entire investment process, the foreign company will suffer huge losses in time and investment.

The economic and Social group of factors are marked very important, for the reason that the success and promotion of their investments seriously depend on the fundamental factors of these groups. A potential partner and monopoly for foreign companies in the energy market of Tajikistan is company Barki Tojik, which drains the production, transportation, and supply of electricity. Naturally, all foreign companies under the contract obliged to sell their produced electricity to the domestic market of Tajikistan, i.e., to Barki Tojik. Foreign companies are not allowed to export their own produced electricity to the foreign market in other countries, nor they allowed to build their power lines, with a chain of the conquest of the domestic and external energy market.

First of all, due to the regulatory legal framework that restricts the ability of foreign companies to build their infrastructure or export manufactured products(electricity). There are also other certain five extremely important factors obtained during the analysis of this study. Before investing, foreign companies take into account the economic and social significance of group factors that determine the success and promotion of their activities. They are related to the availability of infrastructure, financial resources, the size of the consumer market, skilled labor, income of the population.

Nevertheless, for Small HPP, the political and social components of group factors, have extreme and very important significance. It is primarily to the fact that all companies operating in the field of small electricity production consist of local-domestic investors, and they located throughout the country in far-located areas. The significance of political and social group factors for them, and risk of political instability corruption, is fraught with them, loss of investment and socio-economic difficulties. Companies need to have access to energy

infrastructure, road infrastructure, the persistence of profitable tariffs, legal protection in financial and corruption situations, and stable income, which contributes to the successful promotion of investments.

The main priority of Small HPP is that they granted certain privileges such as tax exemption, exemption from tax on water used for electricity production to companies, with production capacity up to 1000 kW. Convenient location in the vicinity of districts and localities provides them with a constant supply of electricity to consumers, and with low losses to supply electricity to consumers. Moreover, in terms of maintenance, they have low technical and economic costs, which allows local companies to limit themselves to low maintenance costs and have access to qualified personnel and permanent electricity consumers.

Regulating group factors are very important, because of the successful promotion of investments, companies interested in the full guarantee of their freedom and legal protection, protection of property, acquisition of land for construction, compliance contracts between state and investor, tax exemptions, guarantees on the power supply. However, according to law, they have limited access to export produced electricity to the common grid, and this is the main disadvantage of the company, which creates difficulties in accessing energy infrastructure. It creates prerequisites fact that, when building a small business, the investing company obliged to construct its energy infrastructure (power transmission line, transformer substation) in each locality, district, region falling under its jurisdiction.

When comparing results and differences between foreign and local investment companies, it is important to note the following: Infield of large and medium-sized HPP, where foreign companies operate, political, regulatory group factors is extremely important, economic and social component group factors are very important. Because:

- 1) needs huge investments
- 2) have modern expensive technological equipment
- 3) need for private road and energy infrastructure, depends on Government, road and energy infrastructure
- 4) seriously dependent on state

monopoly

5) Do not have independent access to internal and external energy markets

6) Seriously dependent on political shocks, risks, and changes

7) need important protection, maintenance, and highly qualified personnel

8) need to tax preferences

This situation explained by the fact that investor companies, on Large and Medium-sized HPP, due to their close dependence assumptions mentioned above and groups of factors, are more vulnerable to political and socio-economic changes and risks, which is fraught with large losses for them. Because political stability is a guarantee of the successful promotion of investment companies. Nevertheless, in other ways, dependence and vulnerability of foreign companies of investors, large and medium-sized HPP, due to their close dependence prerequisites mentioned above and groups of factors, can be assessed as to their advantage. Because, they have high-tech energy-efficient equipment, use state road and energy infrastructure with low costs, are in close cooperation with state, have potential consumers of electricity, such as industrial plants and factories, and have highly qualified personnel.

It is important to note that in the Small hydropower sector, political and social group factors are extremely important and economic and regulatory group factors are very important. Because political stability is a guarantee of the successful promotion of investment companies. It is due to the fact, that the State is interested in promoting and attracting local investments, in order to develop small-scale energy and provide regions and remote areas with electricity, which contributes to "Ensuring energy independence of Tajikistan" economic welfare of regions, raising the living standard of the population. It has given local investors certain privileges, that allows them an advantage over Large and Medium HPP's, they are as follows:

- 1) needs low investments for construction and operation, relatively large and medium-sized HPP
- 2) has modern appropriate technological equipment
- 3) owns its road and energy infrastructure
- 4) is a monopolist in the energy sector

of a particular region, district or locality

5) has access to the internal electricity market, regions, districts or localities

6) relative dependence on political shocks, risks and changes

7) can ensure the safety of the enterprise and promote investment, has access to qualified personnel

8) has tax preferences, is exempt from taxes, is exempt from taxes on water consumption for electricity generation, is exempt from VAT.

The result of the study showed that all three groups, Large, Medium, Small, HPP, are seriously dependent on components of four FDI groups factors (Regulatory, Economic, Politic, and Social) in the energy sector of Tajikistan, with a relative difference on Likert scale. For example, Large and Medium HPP, first, consider extremely important, Political and Regulatory, and second, consider very important economic and social groups of factors. Small HPP, considers extremely important political and social groups of factors first and considers economic and regulatory groups of factors very important second.

As shown in features of important determinants that affect investment in the energy sector of Tajikistan. Out of all 29 indicators of four groups factors only five factors: Tax exemption, Infrastructure availability, Corruption control, Bureaucratic difficulties, Political stability, is extremely important (See penultimate paragraphs-

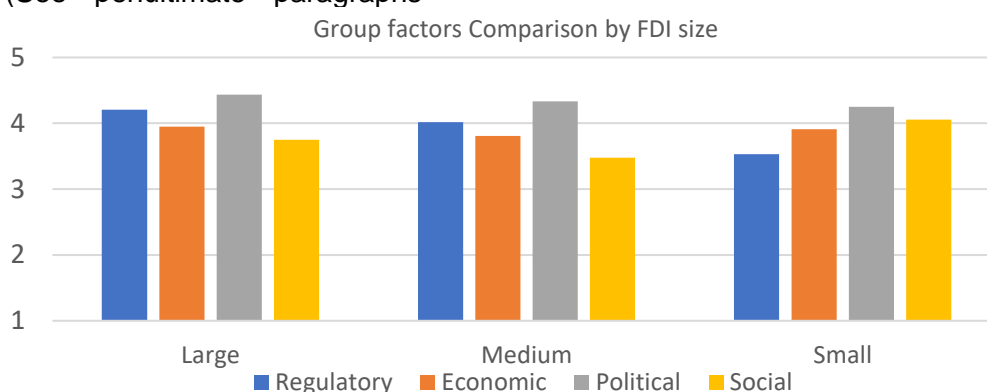
analyze and comparison with other studies, countries). Given their importance, all three groups of HPP expressed their opinion.

Unfortunately, all three categories of investment companies in the energy sector of Tajikistan, Large, Medium, and Small HPPs are vulnerable to the five found, extremely important factors. Frequent visits by representatives of tax and other authorities who have connections with certain power circles and encourage corruption and financial fee.

In the process of reviewing and approving certain documents, proposals, and projects for construction of energy facilities, representatives of relevant ministries and departments create bureaucratic difficulties, which slows down the process, contributes to delay of planned projects, encourages corruption and bribery.

Officials create corruption actions in ministries and departments in order to receive bribes, that impair the transparency of processes, the quality of implementation of investment projects, and the country's rating.

The existing difficulties in road and energy infrastructure make it difficult to deliver goods and products-electricity, to designated points independently. Political stability is a guarantee for promoting investment in the energy sector. In the event of political upheavals, changes in the ruling regime, or risks, there is a danger for both foreign and local investors.



*Source: The conducted survey*

**Figure 9 – Comparison of importance FDI group factors, by HPP size**

### Conclusion

This article examines the current state of the investment climate in the energy sector of Tajikistan, determining factors, problems, and challenges, that have a significant decisive impact on the investment climate

and energy sector of the country by conducting a survey and descriptive analysis. As a result of the conducted research, important determining factors have identified that have a serious impact on investment and have caused costs,



difficulties, and lack of transparency in the investment climate in the energy sector.

Determining factors are among the following groups of factors: regulatory, economic, political, and social factors. Extremely important components determined in the process of analyzing: taxes, availability of infrastructure, corruption, bureaucratic difficulties, political stability(risk). The results of the research have shown that determining factors extremely important factors in the process of attracting and implementing FDI in the energy sector of Tajikistan, which seriously affect the business environment and hinder the process of attracting FDI to the energy sector.

Besides, the analysis describes certain facts, that became reasons for identified extremely important factors, where officials resort to corrupt actions, using their official powers in relevant bodies, ministries, and departments. Bureaucratic difficulties in ministries and departments caused difficulties, slow consideration of certain proposals, investment projects, which will lead to large time costs, delays in implementation of projects, and encourages corrupt actions on the part of officials. Unexpected and unscheduled inspections of representatives of tax authorities, who have connections with officials of higher state structures, create difficulties in the process of work and require bribes. Corrupt actions, where officials take advantage of their provisions, require a fee or bribe, for performing certain tasks.

Access to infrastructure is an extremely important factor, especially for foreign investors who use state energy infrastructure to export electricity and do not have direct access to domestic and foreign electricity markets. The study revealed and confirmed the important role of five extremely important determining factors listed above in improving the investment climate in the energy sector of Tajikistan.

The results of the research confirm the research hypothesis that a favorable business environment contributes to the inflow of FDI into the energy sector of Tajikistan. Furthermore, the five important factors that determine the inflow of FDI to the energy sector in Tajikistan, obtained in the course of analysis, will confirm the hypothesis of this study that they are

extremely important in the inflow of investment in this sector.

### **Recommendations**

Based on five extremely important factors obtained during the analysis of the current study, which extremely important in attracting FDI for the energy sector of Tajikistan, proposed the following measures:

The government should focus on a legislative level; it is necessary to fix inviolability, stability, and protection of property rights, guarantee, and security of an investment company, according to international norms in the event of political instability, risks, or regime change.

The government should encourage tax legislation for foreign companies and provide tax preferences, accordance with international acts, which increases the interest of investment companies.

The government should Improve legislation and regulations in the field of investment

The government should continue active reforms to reduce procedures for issuing construction permits, conducting business, and improving the business climate

The government should encourage energy legislation, to urgently obtain licenses, permits for construction, and operation own energy infrastructure for foreign investors

The government should open direct access to domestic and foreign electricity export markets to foreign companies, operating in the energy sector of Tajikistan, which will allow them to directly serve large local and foreign consumers and increase electricity exports in summer. Thereby reduces the load on the country's energy system and creates stable competition in the energy market.

The government should create and implement a modern electronic system of monitoring for reviewing and approving proposals and investment projects, which helps to reduce time costs, bureaucratic difficulties, and corruption between relevant ministries, departments, and the government

The government should create of unified modern electronic databank system, legislative norms, rules, and investment projects, which gives foreign companies a clear understanding of investment climate

and investment projects in the energy sector of Tajikistan.

The government should tighten legislation in the field of corruption, increase

salaries, and strengthen control over the fulfillment of obligations of competent ministries and agencies.

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#### ТӘЖІКСТАННЫҢ ЭНЕРГЕТИКАЛЫҚ СЕКТОРЫНДАҒЫ ИНВЕСТИЦИЯЛЫҚ АХУАЛДЫ ЖАҚСARTY

**Джалолддин НАЗИРОВ**, Тәжікстан Республикасы Энергетика және су ресурстары министрлігінің Энергетикалық саясат және су ресурстары департамент басшысының орынбасары, Душанбе, Тәжікстан Республикасы, [j.nazirov@bk.ru](mailto:j.nazirov@bk.ru)

#### УЛУЧШЕНИЕ ИНВЕСТИЦИОННОГО КЛИМАТА В ЭНЕРГЕТИЧЕСКОМ СЕКТОРЕ ТАДЖИКИСТАНА

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