Environmental management in small and medium-sized enterprises of oil and gas industry

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Abstract. The correct organization of environmental management is essential for oil and gas enterprises provide improving the efficiency of their activity. This is vital for small and medium-sized enterprises (SMEs), which are the driving force behind the economies of highly developed countries. There was a passive form of environmental policy in many developing countries, the influence to environment was not been taken into account, the existing methods in the field of environmental safety management were not been effective enough. The investigation toward the environmental management in oil and gas industry enterprises of Azerbaijan was provided and comparing the results with Ukraine. The article also includes the institutional barriers in SMEs development, which negatively affect for environmental management. The results define the main areas for improving environmental management in oil and gas industry, in particular taxation mechanism.

1. Introduction
Since Azerbaijan’s independence, oil and gas become a major political and economic factor in strengthening the country, protecting its territory and especially ensuring economic development by attracting foreign investment. Today the Republic of Azerbaijan is going through a period of economic, political and social reformation and development. In order to preserve a stable society with
steady and sustainable development, any sort of aggravation of the ecological system must be prevented. The principal of economic growth and optimism is the provision of sound ecological conditions for human life. In this approach, new design schemes are needed to minimize the negative impacts on the environment [1].

The development and expansion of oil and gas industry in the modern period has led to a number of environmental problems. The solution of these problems can be considered thought the improving the style of enterprises management; we will also give specific recommendations toward environmental management in oil and gas industry in a whole.

While prior research has often dealt with large firms, the last decade has begun to generate broad knowledge on the specificities of environmental management in small and medium businesses as they are increasingly recognized as central contributors to sustainable development. SMEs are arguably the most important sector of a nation’s economy; they are innovative and entrepreneurial, a source of job creation and competition in the market. It is needed to admit, that weak and inadequate environmental management of enterprises, primarily in the most dynamic and numerous among them – small and medium-sized, leads to significant negative consequences for the country’s ecology, its environmental safety in general. Therefore, in order to improve environmental policy at the macro level, it is necessary firstly to consider the quality of environmental management at the level of enterprises operating, which will form and ensure meso- and macro level environmental development.

2. Literature review

The research of these problems and the determination of their solutions is the main topic of a number of studies. In the article [2] was considered the issues of organization of environmental management in offshore oil and gas production. As a result was made a number of conclusions: “the expansion of oil and gas exploration activities makes it difficult to manage the environment if there is not enough primary data in water ecosystems. The synthesis of data contributes to the development of a number of recommendations for managing offshore oil and gas production”. Therefore, this study once again emphasizes that an effective management strategy, and especially environmental management is aimed at minimizing the risk of environmental damage, usually includes regulation of the scope of activities in areas where there are oil and gas deposits.

Paola Maria Pedroni in the article “Integrating the emerging concept of ecosystem services into oil and gas industry environmental management practices”, notes the importance of creating an ecosystem in oil and gas production [3].

In line with environmental management literature, ecological sustainable business practices in established SMEs concern the corporate as well as the functional level whereas management’s commitment to and orientation towards ecological sustainability is a major driver for conducting business in an ecological sustainable way [4].

Andrea Revell said that many small business owners are not convinced that implementing environmental management is a good way to reduce costs or attract consumers. Voluntary environmental measures are likely to meet resistance if SMEs think that reducing their environmental impact can also reduce their net profits [5].

The article about “the impact of the offshore oil and gas industry on the environment: a review of guiding strategies”, authored by Anna Metaxas, Angelo Bernardino and others, assessed the environmental impact of deep sea oil and gas production and management: sustainable oil and gas activities, sustainable environmental impact during the main stages of exploration, production and exploitation [2]. According to Alessandra Magrini and Luis Santos [6], systematic strategic planning should be formed. Authors note that strategic planning is a systematic, annual process that has certain procedures and deadlines. The inclusion of environmental management in strategic planning can be evaluated according to the priority of its implementation, control and updating, except for the resources invested in the sphere. Strategic planning should be able to prevent obstacles and prepare possible solutions before the problem arises [6].
The report [7], prepared by Stanley Ngene, Kiran Tota-Maharaj, Paul Eke and Colin Hills, identified strategies for managing the environmental impact of oil and gas production. The article notes that the countries of the world continue to study ways to optimize the production of crude oil and natural gas with minimal impact on the environment. Countries that produce oil and gas use a number of rules in the production of crude oil and natural gas to ensure the conservation of natural resources and the environment. Harm to the environment during the extraction of crude oil and natural gas can cause a number of processes. To deal with these losses, emergency plans and recovery technologies must be developed before production begins to return the affected land and water to their natural state. The government and decision makers must make reasonable decisions to ensure that mining is sustainable, but in accordance with the environment and public health [7].

Jacqueline Barbosa Mariano in her article [8] assessed potential environmental impacts. The article highlights such issues as the intensification of greenhouse effects on the environment, acid rain, and groundwater pollution. In some cases, the oil and gas industry may also contribute to the loss of biodiversity in addition to the destruction of ecosystems. The environmental impact of the oil and gas industry has already been determined. In order to find ways to link the development of industry with environmental protection, that is, with sustainable development, there was a need. After extraction and transportation, the crude oil must go through refining processes to turn into products with commercial value. Oil refineries are major pollutants, consume large amounts of energy and water, produce large amounts of waste water, emit harmful gases into the atmosphere, and form solid waste that is difficult to clean and dispose of. Oil companies can profit more and in different ways by adopting active environmental strategies. However, many companies in the oil business still do not learn the experience to avoid contamination. Their environmental policy is aimed at compliance with the rules established by environmental administrators, which reflects the ultimate point of view of management – corporate culture and a reactive approach to environmental management [9].

As we can see from the above-mentioned scientific works, there is increased attention to the issues of safe oil and gas production by enterprises, as well as the fact that strategic management of enterprises must provide effective use of environmental management. However, insufficient attention has been paid to solving the problem of effective implementation of elements of environmental management exactly in SMEs of the oil and gas industry as an important institution of development toward sustainability what significantly updates this investigation.

3. Results and discussion

The oil and gas sector in Azerbaijan is the main sphere of the economy. This area is the driving force of economy and will become an important sector in the future. Azerbaijan is a confirmed oil country.

However, the oil and gas industry is vital to Azerbaijan’s economy, as evidenced by rent payments for oil and gas, which account for about 30% of the country's GDP. Analyzing the growth rate over the past 10 years, we see that rent payments tend to increase (Figure 1).

Azerbaijan is one of the first centers of the oil industry both on land and at sea. The history of oil and gas production in the country has more than 130 years. Azerbaijan, along with the United States, was the world’s main oil producer. The main part of the resources is located in the deep layers of the Caspian Sea. The first production from the sea began in the 1920s and continued in the deeper layers of the sea in the late 1940s. Despite the prospects, the former Soviet Union focused its exploration and exploitation activities on territories with more accessible resources. This process has prevented the withdrawal of some of the available resources, as well as led to environmental problems. The existing environmental problems in the oil and gas sector of Azerbaijan are related to the decisions taken earlier and the lack of constant maintenance.

At the initial stage of oil and gas production, simple technologies were used. As in other parts of the world, the environmental performance of the technology first used in drilling operations was weak. This led to serious contamination of the oil-producing territory, oil spills and production leaks. Pollution is further complicated by drilling sections contaminated with water, drilling mud, and drilling mud mixed with oil. All substances are poured into open reservoirs and gorges.
Natural precipitation also helped the pollution. For a long time without proper maintenance, oil mines were intensively exploited. Differences in pressure between the drill pipe and the drilling mud during the operation and repair of wells led to the spread of oil, gas, and contaminated water, which polluted vast areas. The Azerbaijani sector of the Caspian Sea does not meet the standards set for environmental protection in the exploration and exploitation of oil and gas fields in various parts of the world. For many years, water released from reservoirs, sewage, drilling mud, and oil-containing sand has been dumped into the sea without proper treatment. For these reasons, the Caspian sea is polluted with carbon dioxide, heavy metal, and other toxic substances [10].

During drilling and operation, a large amount of oil, gas and highly mineralized rocks were brought to the surface. As a result, almost all oil fields on land (especially on the Absheron Peninsula) are in a state of ecological crisis. Restoration of all oil-contaminated land requires large-scale activities and large investments. Oil refineries, whose waste was not completely cleaned and was usually exported to neighboring territories, had a certain negative impact on the environmental condition of Absheron. The Absheron Peninsula accounts for about 40% of the population and 70% of industrial facilities. Therefore, it is very important to solve the environmental problems of this region at the state level.

One of the main problems is the accumulation of oil waste water for many years. Currently, 20-22 thousand hectares of the Absheron Peninsula are polluted with various wastes (oil and petroleum products, household, industrial, construction and other wastes). This represents about 10 percent of the total area of the Peninsula of 7,500 hectares of contaminated land used by SOCAR, of which 2,800 hectares are particularly polluted. The complete industrialization of the natural environment of the Peninsula reduced to zero the ability of the earth itself to recover. The expansion of polluted land over large areas restricts the construction of houses, creates social and economic problems for people, and has a negative impact on both health and the environment.

The main polluted areas within the Absheron Peninsula are located on the territory of two SOCAR oil and gas production departments. Bibi-eibat square is part of the administration of the same name, and the districts of Buzovna-Mashtaga and Gala. Bibi-eibat is located in the South of Baku, in the Caspian Sea. Industrial oil production in the region began in 1873. The land area is 817 hectares, of which 48.6 hectares are much polluted areas. Since the territory is completely subject to anthropogenic impact, there is no natural layer of soil and vegetation. Oil-polluted ponds, oil storage facilities stored in the swamp, are visible everywhere. The air on the site is heavily polluted due to various gases.
Buzovna-Mashtaga square is located 40 km northeast of Baku. Oil production in this area began in 1940. The terrain is flat; the geological structure is formed by Neogene and anthropogenic deposits. The landscape is subject to anthropogenic influence, oil ponds and swamps are widespread. The region is characterized by semi-deserts of gray color. These types of soil are morphologically salty, and the mechanical composition is mainly clay. Because soils are not very developed, they quickly become unusable when exposed to anthropogenic influences. The territory’s land is polluted by oil wells, sewage, solid substances coming out of oil wells, and household waste. The total area of the site is 588 hectares, and 72.35 hectares are heavily polluted.

Therefore, Absheron square is located in a relatively high part of the Peninsula. Gray-brown semi-desert soil types are common on the territory. Due to the intense anthropogenic impact, the land on the territory is polluted with sewage, solid substances from oil wells and household waste. Along with oil waste, there is household and construction waste throughout the territory. The territory has small ponds and lakes that were previously used as oil storage facilities, constructed from soil barriers contaminated with oil waste [11].

The table 1 and figure 2 below show indicators for the quantity and disposal of hazardous waste. As can be seen from the table and figure, the amount of waste reached the highest level in 2016, and the highest amount of waste treated was in 2015.

Table 1. Creation and use of hazardous waste and neutralization (thousand tons)

| Indicators                         | 2014  | 2015  | 2016  | 2017  | 2018  |
|-----------------------------------|-------|-------|-------|-------|-------|
| Amount of hazardous waste         | 456,6 | 262,6 | 632,6 | 266,0 | 338,7 |
| Amount of hazardous waste used    | 3,2   | 5,2   | 47,8  | 5,4   | 5,7   |
| Amount of hazardous waste to be of disposed | 111,3 | 210,9 | 25,9  | 35,8  | 64,2  |

Figure 2. Creation and use of hazardous waste and neutralization 2014-2018

From the first years of independence, the lack of environmental protection measures was evident in oil production in Baku and its environs. The areas of activity were operated for years and the
equipment was not updated. In these areas, production can only be carried out at a lower price, when operating and capital costs are kept within low limits. If the renewal of installations depended on the revenue generated, many wells had to be decommissioned, and for this reason many of the wells that are no longer in operation were completely abandoned. However, there is a need to evaluate production facilities and make a decision to restore or close facilities that meet environmental standards, including those that are not subject to environmental risks. Despite the above, SOCAR indicates that there is no leakage of environmentally hazardous substances into the sea in Azerbaijan. The State inspection for supervision of the Ministry of ecology and natural resources regularly conducts inspections at sites and reports minor leaks over the past 10 years. If the facilities meet international environmental standards, as the inspection claims, the pollution can only be caused by abandoned facilities or poor treatment. Nevertheless, it is more likely that the contamination of old objects continues at the same level [12].

The quantity of SMEs in mining industry of Azerbaijan is presented in table 2.

| Indicators                      | 2018 Micro | 2018 Small | 2018 Medium |
|--------------------------------|------------|------------|-------------|
| Mining industry                | 375        | 69         | 33          |
| in which:                      |            |            |             |
| state property                 | 6          | 3          | 3           |
| non-state property:            | 369        | 66         | 30          |
| private property               | 342        | 49         | 8           |
| foreign property               | 26         | 17         | 19          |
| joint property                 | 1          | -          | 3           |
| based on: stat.gov.az          |            |            |             |

Feature of the functioning of SMEs in the mining industry is that about 1% of them are owned by the state, and the rest are private enterprises. The mining industry includes enterprises that carry out such activities: extraction of crude petroleum and natural gas; mining of stone, sand gravel, salt and other products; mining industry production; mining support service activities; mining of metal ores. The structure of the mining industry is shown in Figure 3.

![Figure 3. The structure of the mining industry in Azerbaijan 2014-2018](image-url)
Taking into account a number of SMEs in mining industry with foreign property (table 2), it is important to remember about the factors of internationalization under the influence of institutional environment [13], especially in case for developing economies. Institutional barriers should also been mentioned separately in decision-making process of SMEs.

Therefore, there are so-called “institutional barriers” as in environmental management in particularly, and in management of enterprises in total. They play an important role for small and medium-sized businesses especially, as these are the factors that significantly hinder the development of such structures. By institutional barriers, we understand those factors that limit the access to key issues in the management and, consequently, reduce the efficiency and effectiveness activities. Thus, let us highlight the following general institutional barriers to the development of SMEs:

**Lack of support system for SMEs and effective mechanisms of assistance of their development in the country.** The policy of supporting of small and medium-sized businesses should reflect the appropriate special attitude of the authorities to such development institution of market economy as SMEs. The business support system should include clear and understandable mechanisms for assistance in various areas, whether it is financial support or consulting.

The business support infrastructure should include not only strong institutions, but also appropriate communication links between them. For instance, in Ukraine an important obstacle and problem is lack of communication channels between formal and informal business development institutions, as well as within such structures inside. The result is inconsistency of measures, fragmentary, unsystematic nature of business support projects, and lack of sustainable sources of funding for activities. We see the solution to this problem in the organization and provide the cluster of consulting services for small and medium-sized businesses. It is important additionally to note that the sustainability of the development of institutions of business support infrastructure directly depends on determining the legal status of each of them in country. Thus, again on the example of Ukraine, the status of business support funds remains undefined, both at the national and regional levels, as such entities were created for implementation the state policy of assistance the business development in Ukraine (as authorized structures for the implementation of budget support programs toward SMEs).

Budget programs of entrepreneurship support do not play a proper role as an instrument in the policy of SMEs developing. Among the reasons: declarative measures of budget programs, lack of clear executors, time limits, ineffective planning of funding for budget programs.

Comparing the situation with institutional barriers for proper SMEs development in Ukraine and Azerbaijan, we can confirm the similarly and typical problems. Main institutional difficulties according greening of SMEs in Azerbaijan are: the inability of environmental authorities to develop and implement sectorial policies, the lack of attention to environmental compliance, the weak green block in SME support policies and the immaturity of SME support institutions, and the lack of resources (other than limited donor funding) to support green methods doing business [14].

We agree with the approach [15] to consider an environmental management system, which should be created in SMEs of oil and gas industry, including the following sections: 1. **Policy.** The cornerstone of the business is the choice of policy that outlines the commitment what SMEs has done to manage environmental risks and consequences of oil and gas activities. 2. **Identification of Risks and Impacts.** The process of risk assessment requires large amounts of information involving complex methodological approaches, adaptation of economic and mathematical models to software[16]. The main purpose of risk assessment is identifying potential negative environmental risks in the oil and gas sector, so that the company can implement the necessary risk management strategies and their potential consequences. 3. **Management Programs.** Management programs for small and medium-sized enterprises in the oil and gas industry should be aimed at developing operational action plans and improved procedures to avoid, minimize risks and consequences that were defined in the previous part. 4. **Organizational Capacity and Competency.** A well-designed environmental management system requires good organizational management, well-trained, dedicated staff, etc. 5. **Emergency Preparedness and Response.** Even if SMEs took into account all the risks and put availability of appropriate management programs, accidents and emergencies can occur. Although it is not always
possible to prevent such situations, they can be prepared for an effective response to prevent and to minimize any harm to the employees, the community and environment. 6. Stakeholder Engagement. All of people and organizations are stakeholders – they have a stake in your enterprise’s financial, environmental and social performance. 7. External Communications and Grievance Mechanisms. If your company has environmental problems consequences for the community will then arise complaints required. How do you react addressing and managing these issues will be important implications for how your business is perceived.

Environmental management is one of the key tools for ensuring sustainability development. For example in large enterprises, such as SOCAR, there is a separate Department of Ecology, which carries out quantitative and qualitative monitoring of harmful substances in the atmosphere as a result of natural and anthropogenic impacts at subordinate enterprises. The company creates Environmental Reports covering the results of monitoring and regularly publishes such reports. Also, a multinational oil and gas company The British Petroleum Company (BP) publishes annual sustainability reports [12], which includes a lot of parts in particular Sustainability at BP, Doing business responsibly, Climate change and the energy transition and etc.

Like large corporations, we consider it necessary for both small and large enterprises to identify a person responsible for environmental issues. At the highest level, it can be the Chief Sustainability Officer, at the lowest level – a sustainability manager or a project manager for sustainable development or environmental projects. It is necessary to outline the scope of responsibilities of this person and integration within the organizational structure of the enterprise. And as a result of their work must be formed Environmental reports or Sustainability Report, where they should published results of their work in sphere of Ecology, Sustainable development, main ecological indicators, goals in providing new technology in oil and gas industry and so on. For example, like SOCAR, in such reports may be point information about the results of SOCAR monitoring of environmental impacts in oil and gas production, covering the years 2016-2018.

Thus, SOCAR carries out systematic monitoring and research on a scientific basis, which determines the chemical composition, degree of contamination, radioactive and physical properties of air, water and soil environment. Although, in the first years of independence, environmental monitoring in Azerbaijan was not carried out at the proper level in the face of difficult economic conditions.

The following table 3 shows the results of SOCAR monitoring of environmental impacts in oil and gas production in Azerbaijan, covering the years 2016-2018.

| Impact on the environment | 2016  | 2017  | 2018  | Norm  |
|---------------------------|-------|-------|-------|-------|
| CO₂, ton.                 | 166.4 | 246.5 | 207.8 | 252.6 |
| NO₂, ton.                 | 147.1 | 217.9 | 176.9 | 228.5 |
| Organic compounds, ton.   | 2.1   | 3.1   | 2.5   | 3.7   |
| Drill cuttings, ton.      | 3122  | 4596  | 8328  | -     |
| Hazardous waste, m³       | 1097  | 1005  | 1250  | -     |
| Safe waste, m³            | 1287  | 1032  | 931   | -     |

According to the results of monitoring, there is a decrease in the amount of toxic gases released into the atmosphere for many years. On the contrary, contamination by drill cuttings has increased. And in the total volume of waste, the amount of hazardous waste has increased, while safe waste has significantly decreased [17]. BP, which owns a large share in oil and gas production in Azerbaijan on the basis of the “contract of the century”, has also assumed a number of environmental obligations and is constantly working on these obligations.

BP conducts annual environmental monitoring on the territory of Azerbaijan. The figure 4 shows the trend by year of environmental impact of BP’s operations in Azerbaijan.
According to BP’s activities, about 3.7 million tons of total greenhouse gas was released into the air in 2018, which is 11% more than in 2017. The largest share of greenhouse gas emissions is from the Central Asian platform (22%), the Solar platform (17%), the Sangachal terminal and Shah Deniz (18% and 10% respectively). In 2018, 66% of the level of recycling and recycling of unsafe waste was achieved, which is 13% more than a year earlier. Recycled unsafe waste traditionally includes metal, plastic, paper and cardboard. 45% of hazardous waste was sent for recycling and recycling, which is 4% more than a year earlier [17], [18].

Drilling in the Caspian Sea continued in 2018, producing about 50,000 tons of mud and cuttings, which is almost 50% less than in 2017. On the landing platform was effectively used drilling mud and cuttings on land. In line with the increase in the number of drilling wells and operations, the volume of hazardous waste has increased. During 2018, there was increasing a quantity of rigs and wells, which explains the increase in the volume of drilling cuttings from 2016 to 2018 [19].

Thus, for decades, perhaps centuries, people's indifference has put them in the face of environmental problems. Many of these problems are related to the activities of the oil industry, and the current environmental situation is a result of these activities. Therefore, oil production and processing should be carried out in an environmentally friendly way.

In the Republic of Azerbaijan it is noted that the fiscal nature and effect of the economic sanctions defined by the legislation are weak. The lack of payment volume also has a minimal impact on the environment polluting enterprise and the amount of damage incurred.

The preventive target orientation of environmental taxation in a country is to stimulate pollutants to reduce all types of emissions into the environment, to introduce environmental technologies. Research shows that by raising the rates of environmental taxes in the long run, it is possible to achieve a reduction in pollutant emissions and the tax rate should be comparable to the damage that pollutants cause to nature [20].

In order to improve the state fiscal system of Azerbaijan, what was mentioned above, it is necessary to study foreign experience; it can be done again on the example with Ukraine.

According to Art. 240 of the Tax Code of Ukraine, an environmental tax is levied from business entities, which includes different types of emissions into the environment. According to Art. 245 of the Tax Code of Ukraine, the tax rates are as shown in table 4.
Table 4. Tax rates for discharges of certain pollutants into water bodies

| Name of the pollutant                                      | Tax rate, $/ton |
|-----------------------------------------------------------|-----------------|
| Ammonium nitrogen                                         | 56.37           |
| Organic substances (according to biochemical oxygen demand) (BSC 5) | 22.56           |
| Suspended substances                                       | 1.62            |
| Petroleum products                                         | 331.60          |
| Nitrates                                                  | 4.85            |
| Nitrites                                                  | 276.85          |
| Sulfates                                                  | 1.62            |
| Phosphates                                                | 45.05           |
| Chlorides                                                 | 1.62            |

According to reports on state budget revenues for 2015-2019 in Ukraine, the level of revenues from the environmental tax was in 2015-2017 at the level of 46-60 million dollars. In 2018, it was increased to 100 million dollars and in 2019 – it was doubled – and amounted to 206 million dollars. This increasing was due to an increase in rates for waste and in the control of the State fiscal service over these fees.

Thus, the tax for emissions of pollutants into the atmospheric air by stationary sources of pollution (including CO2) has increased more than fivefold over the past five years, from $ 9.8 million to $ 51 million; the tax for placement of waste (except for the placement of certain types (classes) of waste as a secondary source of waste, placed on their own territories (facilities) of business entities) increased...
by 4 times – from 5.7 to 24 million dollars, the tax for discharges of pollutants directly into water bodies increased 3 times – from 0.9 to 3 million dollars, and the tax for the formation of radioactive waste increased 1.6 times – from 29 to 45 million dollars. If we take into account that 45% of the environmental tax is credited to the state budget, and 55% is still sent to local budgets of all levels, then the total amount of revenues in the general budget of the country is 458 million dollars based on the results of 2019.

Payers of the environmental tax pay the amount of the environmental tax levied on emissions in local budgets, which are opened in the bodies that carry out the maintenance of budget funds. The Bodies of treasury services of budget funds, ensuring the distribution of credited funds in the ratio determined in the Budget Code of Ukraine, direct the 55 percent of all payments to special fund of the local budgets (except the environmental tax, which pay for the generation of radioactive waste), including: in rural, settlement, city budgets, budgets of the united territorial communities, created in accordance with the law and the long-term plan of the communities – 25%; regional budgets – 30%; the budget of the city of Kiev – 55%.

Experts have pointed the need to improve the current mechanism of environmental tax in Ukraine, which should stimulate businesses to reduce the volume of discharges of pollutants, comply with standards and limits, and install environmental technologies. Nevertheless, this experience could be a good example of the diversification of environmental taxes in the fiscal system of Azerbaijan.

4. Conclusion
Such a comprehensive analysis makes it possible to identify clear conclusions and recommendations for improving environment management both at the level of enterprises and throughout in the country respectively:

As a modern western-oriented Muslim country, Azerbaijan is important for the energy security of the European Union, as well as a transport corridor between Europe and Central Asia. The achievement of the Government of Azerbaijan is the creation of a stable legal framework in the energy sector and the provision of a predictable legal and regulatory framework in oil contracts to increase foreign investment for the oil and gas industry development.

The oil and gas industry is decisive in the economy of Azerbaijan and its dependence on this sector is growing. Therefore, in addition to the fact that the government needs to diversify the economy by strengthening the service sector and the non-oil sector, increasing agricultural productivity, it is necessary to use environmental management to improve the environmental situation in the country.

During the production activities of the oil and gas, industry in most cases does not comply with the requirements of environmental safety. To overcome the most serious environmental problems of such country as Azerbaijan (its ecological security), numerous programs of action are needed to strengthen the country’s management capacity in the field of environmental protection.

Improving the environment is considered as an important factor for human health. However, faced with serious problems, the further deepening of problems in the field of environmental protection, the development of certain industries and agriculture in the country is closely linked to the fact that environmental factors are not taken into account. To solve successfully of extremely important environmental problems, such as reducing emissions of harmful substances into the atmosphere, improving the environmental condition of the Caspian Sea, preserving the ozone layer and biodiversity, it is necessary to constantly continue regional and international cooperation.

Institutional problems and difficulties of SMEs, which are very important to entrepreneurship development, are typical for all enterprises, regardless of the industry in which they operate. The work highlights such main general institutional barriers as the lack of a business support system and its effective mechanisms, weak role of business institutions and communications between them, the fact that the budget programs aren’t proper instrument in SME support policy. Institutional barriers are important for environmental management and greening of SMEs, as well as for general management of such enterprises.
Research shows the need to introduce a mechanism for environmental taxation in Azerbaijan, which will stimulate enterprises to introduce environmental protection technologies, meets the best tax practices of European countries and the concept of sustainable development. An example is the taxation mechanism in Ukraine.

The main points of environmental management improving in SMEs of oil and gas industry are to provide a proper monitoring system of environmental impact of their activity and to consider environmental management of enterprises as complicate and comprehensive systems, which includes various aspects of business activities. Only in such conditions, the sustainable development of the perspective territories and countries in whole can be ensured.

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