

## Social and Ecological Situation in Kazakhstan: Facts and Numbers

*...They were exhausted under a burden of their happiness.  
M.E. Saltykov-Shchedrin,  
“The story of one city”*

During the period after the Forth Meeting of the Parties of the Aarhus Convention, social and ecological situation in the country continued to get worse. Materials published by the state officials, independent researchers, and international organizations serve an evidence to this. The main trends which define the social and ecological situation in the country are:

- economic growth based on increase of extraction of natural resources;
- increase of dependency of the economy of the country on raw material sectors;
- deteriorating condition of water resources;
- increasing pollution of soil and atmosphere;
- growth of sickness rate caused by environmental pollution;
- continuing deterioration of the state environmental protection system;
- weakening of legislation in favor of polluters;
- failure to follow obligations of the international and national legislation by the state authorities of all levels;
- high level of corruption;
- limitation of public access to the national natural resources;
- restriction of public access to environmental information, decision-making process, and justice in the matters related to the environment;
- massive violations of human rights on favorable environment.

In Kazakhstan, there is a full spectrum of problems typical for under-developed countries.

Lack of environmental policy in Kazakhstan leads to a constant replacement of priorities in the sphere of environmental protection and natural resources utilization. This causes squandering of the state money, deterioration of the natural environment, and lowering of the quality of life.

On May 30, 2013, a Decree of the President established a concept of Kazakhstan’s transition to “green economy.” At the present time, the state officials make active attempts to demonstrate seriousness of their

intentions.<sup>1</sup> But this concept contradicts many provisions of the national and international legislations. Moreover, it allows ministries and departments to develop plans of construction of atomic power stations,<sup>2</sup> implement production of genetically modified organisms,<sup>3</sup> destroy ecological systems of national parks and clear cut specially valuable forestlands.<sup>4</sup>

### **Economic growth based on increase of extraction of natural resources, and increase of dependency of the economy on raw material sectors**

After proclaiming independence in 1991, Kazakhstan declared itself a democratic, secular, lawful, and social state, which highest values are people, their lives, rights and freedoms.<sup>5</sup> But during the period of independence, no truly democratic state was established in the country,<sup>6</sup> and natural resources did not become a basement for economic prosperity of all levels of the society.

In accordance with the official statistics, gross domestic product per capita increases.<sup>7</sup> The growth is primarily based on the extractive industries.<sup>8</sup> “Kazakhstan’s oil sector plays a significant role in the economy and will likely remain a main driver of growth. Kazakhstan possesses the world’s ninth largest proven reserves of oil (3 per cent of the global reserves), and is among the top 20 oil producers. The dependence of the economy on exports of oil and other minerals has been growing, reflecting both higher international prices of oil and higher extraction 12 volumes. Oil and other mineral products account for around 85 per cent of exports, up from around 50 per cent in the mid-

<sup>1</sup> Concept of transitioning of the Republic of Kazakhstan to the “green economy”, adopted by a Decree of the President of the Republic of Kazakhstan dated on May 30, 2013, No.577: <http://www.eco.gov.kz/files/koncepciya.htm>.

<sup>2</sup> Russia and Kazakhstan agreed on construction of an atomic power station in the city of Kurchatov: <http://www.zakon.kz/4628109-rossija-i-kazakhstan-dogovorilis-o.html>; May 29, 2014.

<sup>3</sup> Address of the Head of the State, Nursultan Nazarbayev, to the people of Kazakhstan: [http://www.akorda.kz/ru/page/page\\_215738\\_poslanie-glavy-gosudarstva-nursultana-nazarbaeva-narodu-kazakhstana](http://www.akorda.kz/ru/page/page_215738_poslanie-glavy-gosudarstva-nursultana-nazarbaeva-narodu-kazakhstana); January 17, 2014.

<sup>4</sup> Kazakhstan needs a state forest policy: <http://www.sim.kz/articles/view/31587>; October 2, 2013.

<sup>5</sup> Constitution of the Republic of Kazakhstan. 1995, article 1.

<sup>6</sup> On March 7, 2012, the European Parliament adopted a resolution on situation in Kazakhstan, in which it is stated that “the significant retreats made by the government of Kazakhstan in the recent period in the fields of human rights”, and antidemocratic actions of the public officials are blamed. European Parliament resolution on Kazakhstan (2012/2553(RSP):

<http://www.europarl.europa.eu/sides/getDoc.do?type=MOTION&reference=B7-2012-0144&format=XML&language=EN>.

Also, see the Democracy Index of the countries of the world: <http://gtmarket.ru/ratings/democracy-index/info#kazakhstan>.

<sup>7</sup> The World Bank: <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>.

<sup>8</sup> Majority of investments in Kazakhstan are going into the extracting sector: <http://kzinform.com/ru/news/20140519/36506.html>; May 19, 2014.

1990s. Oil contributes around three quarters of commodity exports. Most of the “non-mineral” exports are in fact accounted for by industries closely linked to natural resources, primarily metals and chemicals...Almost 55 per cent of government revenues came from extraction and exports of oil in 2011.”<sup>9</sup>

State officials admit dependence of the economy from the export of raw materials: “As for today, the economy of Kazakhstan depends on export of raw materials, and therefore, in a significant extent is subjected to influence of external drastic fluctuations of prices on raw materials market.”<sup>10</sup>

“At the same time, other sectors suffer from low productivity, often difficult business environment and insufficient competition in the product markets.”<sup>11</sup> Agricultural sector is also far from being in the best condition.<sup>12</sup>

### **Corruption and shadow economy**

According to the research conducted by Transparency International in 2012, Kazakhstan took the 133<sup>rd</sup> place out of 174 countries for the Corruption Perceptions Index. In 2013, the 140<sup>th</sup> place out of 177 countries.<sup>13</sup> Corruption in Kazakhstan has a system nature and takes place in all branches of power.

As stated by the chairman of the Agency on Fighting with Economic and Corruption Crimes, Tussupbekov: “From the beginning of this year, there were 1333 criminal cases initiated against 900 persons who committed corruption crimes, and also officials authorized to perform state functions and persons equaled to them. More than 120 officials of the republic and oblast level were called to account. As for the shadow economy, ... we strengthened fight against illegal trade of alcohol, crude oil, false enterprises. In general, there were 4652 crimes identified...”<sup>14</sup>

“According to the operational data of the Agency of the Republic of Kazakhstan of Statistics, by the end of 2011, unobserved economy made

<sup>9</sup> Strategy for Kazakhstan. European Bank for Reconstruction and Development: <http://www.ebrd.com/downloads/country/strategy/kazakhstan-strategy-2013.pdf>; December 17, 2013, p.11-12.

<sup>10</sup> Concept of transitioning of the Republic of Kazakhstan to the “green economy”, adopted by a Decree of the President of the Republic of Kazakhstan dated on May 30, 2013, No.577, p.4.

<sup>11</sup> Strategy for Kazakhstan...:

<http://www.ebrd.com/downloads/country/strategy/kazakhstan-strategy-2013.pdf>; p.18.

<sup>12</sup> Kazakhstan: 20 years of galloping or duck-size steps?:

[http://kazakh-zerno.kz/index.php?option=com\\_content&task=view&id=48402](http://kazakh-zerno.kz/index.php?option=com_content&task=view&id=48402); November 28, 2011. Agriculture of Kazakhstan – from rain to rain:

[http://www.kazakh-zerno.kz/index.php?option=com\\_content&view=article&id=90440:2014-03-15-04-13-40&catid=18&Itemid=111](http://www.kazakh-zerno.kz/index.php?option=com_content&view=article&id=90440:2014-03-15-04-13-40&catid=18&Itemid=111); March 15, 2014.

<sup>13</sup> Corruption Perceptions Index 2012: <http://cpi.transparency.org/cpi2012/results>. Corruption Perceptions Index 2013: <http://www.transparency.org/cpi2013/results>.

<sup>14</sup> Nazarbayev is unhappy by the rating of corruption perception: <http://news.nur.kz/293401.html>; December 5, 2013.

19.5% of the GDP volume, in the past several years, it fluctuated between 19.5 and 20.1%.” “According to the World Bank, average size of the shadow economy in Kazakhstan for the period of 1999-2007, was 41.1%. According to researches conducted by foreign experts, unobserved economy of developed countries takes 10-15% of the GDP, in the countries with transitional economy – 23-28%, in developing countries – 40-45%.”<sup>15</sup>

Among the main reasons of appearing of shadow economy, the following should be noted: “Lack of responsibility for unjustified planning of the state expenses. The current legislation stipulates responsibility only at the stage of spending of budget money (ill-purposed, non-efficient spending, etc.). But taking out money from the budget into the unobserved economy by overstating costs takes place at earlier stages during the planning phase.

The legislation of the Republic of Kazakhstan lacks of norms about responsibility of the state organs officials, including the leadership, for violation of the requirement of justification stipulated in the Budget Code when preparing republic and local budgets...

Imperfection of the system of law-making and implementation of laws. There are problems of control over implementation of normative and legislative acts.”<sup>16</sup>

### **Loss of biological diversity**

Predominance of the raw materials sector in the economy, incompliance of laws with the requirements of international treaties ratified by the country, their unsatisfactory implementation, and corruption have a destructive impact on the nature of the country. In the Forth National Report of the Republic of Kazakhstan on Progress in Implementation of the Convention on Biological Diversity prepared in 2008 it is said: “The environmental situation in Kazakhstan is characterized by a large extent of degradation of natural systems, leading to destabilization of the biosphere, the loss of its ability to maintain quality of the OS required for the life of society. The problem of desertification is of high importance. The critical state of biodiversity is connected with human activities, environmental pollution and natural disasters, as well as a small area of protected ecosystems. It was the depletion of biodiversity and degradation of 66% of the republic, especially in the area of deserts and steppes, while plowing the land, and overgrazing.”<sup>17</sup>

<sup>15</sup> Complex plan of counteraction to shadow economy in the Republic of Kazakhstan for 2013 – 2015. Adopted by the Decree of the Government of the Republic of Kazakhstan No.190 dated on February 27, 2013: <http://adilet.zan.kz/rus/docs/P1300000190>.

<sup>16</sup> Same as above.

<sup>17</sup> The Fourth National Report of the Republic of Kazakhstan on Progress in Implementation of the Convention on Biological Diversity, 2008: <http://www.cbd.int/doc/world/kz/kz-nr-04-en.pdf>, p.16.

In 2010, in the National Report about condition of the environment in the republic, it is stated: “Failure to act on the sphere of conservation of biodiversity of Kazakhstan threatens to lead to a full extinction of some of species of animals and plants, degradation of ecosystem.”<sup>18</sup>

The National Report name factors impacting the condition of biological diversity – these are “irrational utilization and depletion of natural resources (poaching, over-fishing and over-hunting, uncontrolled recreation activity); degradation of ecosystems and extinction or threatening decline in number of some of the species of flora and fauna, as a result of anthropogenic activity; improper level of ecological culture of the population; conflict on the level of local communities, when issues of providing life necessities for the population conflict with the obligation of environmental protection activity.”<sup>19</sup>

Six years after preparation of the Forth National Report, the situation did not improve. The Fifth National Report of the Republic of Kazakhstan on Biological Diversity of 2014 admits: “With the existing resource-dependent economy and intensive agriculture it is very difficult to regulate pollutants...”<sup>20</sup>

“The contamination of the environment is being intensified and presents a serious problem in general and a very dangerous threat at a local level.”<sup>21</sup>

“Results of ecological zoning in Kazakhstan confirm that the natural environment is not healthy in significant areas of the regions (19.05%). The category of relatively unfavourable areas relates to moderately deserted ecosystems – of a moderate degree of danger (57.82%), since their utilization has already required observance of strict standards and seasonal monitoring of the environment, especially in periods of droughts.”<sup>22</sup>

It should be noted that in the Fifth National Report, it is partially admitted that the legislation stipulates norms contributing to destruction of specially protected natural territories (SPNT) and, at the same time, impeding implementation of the requirements of the Convention on Biological Diversity: “Conservation of biodiversity is highlighted in all tourism development programmes. However, it should be noted that lands in SPTs could be withdrawn for building of touristic sites. This negative motive has appeared since 2008, and the experience has shown that it brings serious risks to the integrity of the SPTs system, especially near large cities with very high land prices.” And further on: “Since July 2013 the reference

<sup>18</sup> National report on environmental conditions in the Republic of Kazakhstan in 2010. – Almaty, 2011, p.115.

<sup>19</sup> National report on environmental conditions... , p.116.

<sup>20</sup> The Fifth national report on progress in implementation of the Convention on biological diversity, 2014, p.10: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

<sup>21</sup> The Fifth national report... , p.9: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

<sup>22</sup> The Fifth national report... , p.41: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

to a “state program” has been replaced with a reference to “documents of the state planning system”, which include a very wide range of documents, both on the national and local levels. This creates preconditions for uncoordinated actions of state agencies, akimats of local authorities and national companies regarding withdrawal of lands in PTs. It starts causing a real threat to the PTs system of the country. Currently the need to make amendments to this article in the law is under discussion.

The example of such threats is procedures, effective since 2013, on withdrawal of 1000 hectares of lands from the Ile-Alatau national park (included into the tentative list of the UNESCO World Heritage) for the construction of a ski resort “Kokzhaylau” under local plans of the Almaty akimat. At the same time, for withdrawal of the lands, the zoning of the Ile-Alatau national park was first changed to move a part of this section from the zone of the “environmental stabilization” to the zone of the “limited economic use”, justifying this decision just with the need to construct the resort. Thus, the imperfect legislation allows similarly to withdraw from any national park virtually almost any site required for privatization. This situation should be changed.”<sup>23</sup>

According to international evaluations, efforts of Kazakhstan in conservation of biodiversity and habitats of live organisms are, obviously, insufficient. By the Environmental Performance Index prepared in 2013 by the University of Yale, Kazakhstan takes the 160<sup>th</sup> place out of 178<sup>24</sup> countries researched.

### **Atmospheric air pollution and climate change**

As indicated above, officials admit that the “problem of environmental pollution is becoming acute and serious, and on a local level, it is very dangerous.”

“Trends for different types of pollutants are quite different. For instance, from 2009 to 2012 the volumes of the following pollutants decreased: crude wastewater discharged into water bodies – by 7.6%, and their share in the total volume of waste waters – by 12.9%; emissions of dust – by 7.1%, lead – by 29.3%, mercury – by 33.3%, arsenic – by 46.2%, dichloroethane – by 67.1%.

During the same four years, from 2009 to 2012, the following indicators increased: emissions of nitrogen oxides – by 20.7%, ammonia – by 29.4%, non-methane volatile organic compounds – by 33%, hydrocarbons – 30.7 %, cadmium – by 168.5%, toluene – by 50.2%, benzopyrene – by 6.9%.

... Pollutants worsen a quality of drinking water, air and make an adverse impact not only on biodiversity, but also on human health.”<sup>25</sup>

<sup>23</sup> The Fifth national report..., p.8, 95, 110: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

<sup>24</sup> 2013 Environmental Performance Index (EPI): <http://epi.yale.edu/epi/issue-ranking/biodiversity-and-habitat>.

<sup>25</sup> The Fifth national report..., p.9-10: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

Problem of atmospheric air pollution in Kazakhstan and, in particular, in Almaty, is discussed for many years. But a lack of environmental policy and quite contradictive economic activity of local officials lead to complication of the situation. As in the beginning of the 2000s, the main sources of the pollution are industrial enterprises and auto-transport. In Almaty, where there are no large industrial enterprises, “up to 90% of the total emissions of contaminants into atmosphere are coming from auto-transport, which quantity has increased in the recent years.” Almaty stays the city with the most polluted atmospheric air in the country. Heavy air pollution also exists in Temirtau, Karaganda, Shymkent, Ust-Kamenogorsk.<sup>26</sup>

“In the area of adaptation to Climate Change, a number of climate change impacts on key sectors of the economy are raising concern. These are increasing water scarcity, reduced agricultural production (driven by heat stress and water scarcity), and extreme heat events in urban and industrial areas, especially in the south.”<sup>27</sup>

### **Deteriorating conditions of water resources**

Problem of deterioration of the condition of water resources during many years is discussed in official documents, researches and reports of international experts. But no effective measures on improvement of the situation were undertaken.

In the report prepared by the UNDP in 2006, it is stated that “over 39% of the country’s population has no permanent access to quality drinking water. The issue is especially acute in rural areas, where slightly over one-third of all rural residents have permanent access to quality drinking water.”<sup>28</sup>

Studies of the last decade indicate accelerating rates of melting of glaciers which are the most important water sources. For example, “According to experts’ evaluation, as a result of degradation of mountain ice caps, flow rate of rivers of the northern slopes of Zailiisky Alatau will reduce approximately on 16%. Regulating influence of glaciation of the river basins on total flow rate variations from year to year caused by asynchronism of the glacier runoff and runoff from the surface of non-glacier part of the basins will disappear. Monthly fluctuations of river flows will change: their volume will decrease in the summer (July-August) and increase in spring-summer time (May-June) which will negatively impact agricultural production in irrigated regions.”<sup>29</sup>

<sup>26</sup> Almaty “suffocates” from cars emissions into atmosphere:  
<http://meta.kz/novosti/kazakhstan/836254-almaty-zadyhaetsya-ot-avtomobilnyh-vybrosov-v-atmosferu.html>;  
October 18, 2013.

<sup>27</sup> Strategy for Kazakhstan...:

<http://www.ebrd.com/downloads/country/strategy/kazakhstan-strategy-2013.pdf>, p.17.

<sup>28</sup> Access to drinking water and sanitation in the Republic of Kazakhstan. – Almaty, UNDP, 2006, p.21.

<sup>29</sup> National report on environmental conditions..., p.62-63.

“A special attention should be given to the issue of influence of degradation of the mountain glaciations on river flow resources of the Lake Balkhash basin, as one of the largest and densely populated. Results of reconstruction of the patterns and balance of the mass of the glacier Tuyuksu located in Malaya Almatinka River basin and on the northern slopes of Zailiisky Alatau showed that from the end of the 19<sup>th</sup> century to the middle of the 20<sup>th</sup> century, its area was slowly but continuously shrinking, from the second half of the 20<sup>th</sup> century, the shrinking rate significantly increased.

In general, volume of glaciers in the Lake Balkhash basin for the indicated period decreased approximately on 110 cubic km (42.2%) or, on average, on 2.19 cubic km (0.84%). Calculations showed that because of decrease of long-term ice and water reserves in glaciers, rivers receive additional 10% of water.”<sup>30</sup>

Decrease of water resources is accompanied by strong pollution of water bodies. “By the level of discharge of polluting organic substances in water Kazakhstan surpasses such countries as Russia, USA, and Germany on 37%, 66%, and 75% correspondingly.”<sup>31</sup> Already in 2006, it was identified that “over the past few years nearly all the surface sources of water supply suffered from considerable pollution by anthropogenic substances, and their water quality is incompliant with regulatory requirements. The pollution of surface sources is particularly difficult in the cities of Kokshetau, Kyzylorda, Shardara, Ekibastuz, Ridder, Lenger, etc.”<sup>32</sup>

Increase of oil extraction also negatively affects conditions of water resources. “Ground waters are polluted with oil products in the areas of all oil and gas sites in Kazakhstan.”<sup>33</sup>

Pollution of water sources has lead to deterioration of quality of drinking water which attracted attention of scientists back in 2000.<sup>34</sup>

“A change of demand for bottled water can be considered an indicator either of the deterioration or improvement of water quality in Kazakhstan. The following connection is established: the more respondents’ opinion of the quality of drinking water is negative, the more bottled water they use for drinking.”<sup>35</sup>

<sup>30</sup> National report on environmental conditions..., p.65.

<sup>31</sup> 40 thousand children suffer from the high level of environmental pollution in Kazakhstan: <http://www.kursiv.kz/news/details/obshestvo/ot-vysokogo-urovnya-zagryazneniya-okruzhayush-hej-sredy-v-kazaxstane-stradaet-40-tys-detej>; February 1, 2013.

<sup>32</sup> Access to drinking water..., p.24.

<sup>33</sup> The Fifth national report..., p.41: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

<sup>34</sup> I.V.Severskiy, N.V.Uvarov. Results of research of pollution of snow cover in the basins Bolshaya and Malaya Almatinka. In the book: International ecological Forum “Balkhash-2000”. – Almaty, 2000, p.147-151.

<sup>35</sup> Access to drinking water..., p.78.

In 2012, in his address to the nation, the President of Kazakhstan pointed out the issue of water supply of the country as one of the most crucial: “We have a shortage of quality drinking water. Whole numbers of regions have an urgent need in it.”<sup>36</sup>

In the Concept of transitioning of the Republic of Kazakhstan to the “green economy” (2013), it is said that the “threat of water deficiency and inefficient water resources management can become the main obstacle to sustainable economic growth and social development of Kazakhstan.”<sup>37</sup>

Because of the high importance of this problem, in March 2014, the president signed a Decree about a State Program of Kazakhstan’s Water Resources Management.

### **Land resources and soil pollution**

Studies of the condition of land resources show extremely serious situation: “Analysis of zones of ecological risk of the republic (Northern, Western, Southern, Central, and Eastern Kazakhstan) show that total area of desertification of different extent covers 91.6% of the territory of the republic, no desertification is only found on the area of 8.4% of the territory of the republic. 510.91 thousands of square km or 19.1% of the territory of the republic are subjected to strong and very strong desertification (risk level). Risk zones of critical level of damage are considered as crisis zones. Among the regions of strong and critical level of degradation the largest area is observed in Central and Western Kazakhstan regions – 53.9% and 19.9% correspondingly.”<sup>38</sup>

“Almost third of agricultural lands right now are degraded or under a serious threat, and more than 10 million hectares of potentially plough-lands were abandoned in the past.”<sup>39</sup> “Significant degradation of land resources causes reduction of soil productivity (more than 30%).”<sup>40</sup>

“Pasture lands suffer from overgrazing near populated areas and undergrazing in distant areas which has lead to 20 millions of pasture lands being degraded because of excessive grazing.”<sup>41</sup>

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<sup>36</sup> Address of the President of the Republic of Kazakhstan – the leader of the nation, N.A.Nazarbayev, to the people of Kazakhstan. “Strategy “Kazakhstan-2050”: New political course of an accomplished state” (Astana, December 14, 2012); [http://online.zakon.kz/Document/?doc\\_id=31305418&sublink=204](http://online.zakon.kz/Document/?doc_id=31305418&sublink=204).

<sup>37</sup> Concept of transitioning ... : <http://www.eco.gov.kz/files/koncepciya.htm>, p. 14.

<sup>38</sup> Report on “Preparation of the National Report...”, p.69.

<sup>39</sup> Concept of transitioning ... : <http://www.eco.gov.kz/files/koncepciya.htm>, p.4.

<sup>40</sup> Report on “Preparation of the National Report of the Republic of Kazakhstan on biological diversity for 2011”. – Astana. 2012, MEP, p.45.

<sup>41</sup> Concept of transitioning ... : <http://www.eco.gov.kz/files/koncepciya.htm>, p.19.

One of the main causes of unsatisfactory conditions of land resources is a lack of effective waste management. 97% of solid household waste finds their way onto uncontrolled dumpsites and landfills, which do not meet sanitary standards. Also a serious problem comes from historical toxic and radioactive industrial waste.”<sup>42</sup>

“Analysis of the existing problems of solid waste landfills in all populated areas showed that the current system of waste management does not fully meet the modern requirements to this service of public utilities: waste landfills placement is performed without engineering and hydrogeological justifications; no separate collection or recycling facilities exist; no environmental monitoring in landfill areas is conducted; no sanitary or environmental requirements to installation and maintenance of temporarily storage places of solid waste are met; no work on minimization of waste is conducted; technological requirements to exploitation of landfills and dumpsites of solid wastes are not met, in the majority of cases; not all of the generated solid waste reaches approved dumpsites which leads to formation of illegal dumpsters.”<sup>43</sup>

“...Large amount of solid household waste is generated in the republic. Outside of large cities, waste collection services are developed very poorly (about 25%). Waste collection at acceptable levels is performed only in some large cities, for example, Astana (90%), Kokshetau (95%), Ust-Kamenogorsk (85%). But outside of the large cities, up to 75% of waste is not collected and most likely finds its way to illegal dumpsters.

Solid waste is being handled with violations of safety requirements and very low material recovery rate. Enormous amount of waste (97%) is concentrated on dumpsters, dumpsters with dirt cover (“sanitary” cover) make 2%, and only 1% of waste is used for production of heat energy and material recycling, including production of compost. Illegal dumpsters worsen sanitary and epidemiological conditions of large cities and small towns causing high risk of infections and respiratory diseases among the population.”<sup>44</sup> Illegal dumpsters are found even on territories of national parks, downtowns, and memorial sites.

According to the official statistics, from the year 2000 to 2012, number of dangerous waste increased in almost 3.5 times; mining industry waste – more than in 5 times; construction waste – in 42 times. Total amount of waste per unit of GDP increased in 1.47 times.<sup>45</sup>

Raw materials sector contributes to destruction of land resources as well. “Thus, the area of lands, occupied by mining companies, has been steadily

<sup>42</sup> Concept of transitioning ..., p.4.

<sup>43</sup> National report on environmental conditions..., p.103.

<sup>44</sup> Report on “Preparation of the National Report...”, p.49.

<sup>45</sup> Ecological indicators of monitoring and evaluation of the environment:  
[http://www.stat.gov.kz/faces/homePage/ecolog?\\_afzLoop=818720429352608#%40%3F\\_afzLoop%3D818720429352608%26\\_adf.ctrl-state%3Dy2b317kcr\\_77](http://www.stat.gov.kz/faces/homePage/ecolog?_afzLoop=818720429352608#%40%3F_afzLoop%3D818720429352608%26_adf.ctrl-state%3Dy2b317kcr_77).

extended; for the period from 2008 to 2012 - to 110,000 hectares, and in general, since 2000 from 580,000 ha to 910,000 ha. In the last 5 years the oil and gas production areas, uranium mines, etc., were extended in the Western Kazakhstan, eastern PriCaspian region, the Betpakdala desert. The statistics does not reflect extensive areas of preliminary explorations of mineral resources, also causing displacement of, at least, cautious animals.<sup>46</sup>

### **Increase of sickness rate caused by environmental pollution**

Studies of sickness rate caused by environmental pollution in Kazakhstan show that the main reasons are pollution of atmospheric air, water, and soil. "High level of atmospheric air pollution in urban areas (cities, industrial centers) with emissions level several times higher than the maximum permissible emissions level serves an origin of increase in sickness rate in population which is expressed in significant state expenses on health improvement and is a serious factor of decrease of resource potential/biodiversity of ecosystems. Atmospheric air pollution with solid particles in urban areas of Kazakhstan causes approximately 40 deaths per 100 thousand people. Total expense related to the negative influence of atmospheric pollution over public health are around 1.7% of GDP as of 2010, and 90% of the expenses are related to high death rate."<sup>47</sup> In other words, 6,000 Kazakhstan citizens die prematurely each year as a result of air pollution.

About 40 thousand children suffer from various neurological diseases as a result of environmental pollution.<sup>48</sup>

Public health studies in Aral Sea region demonstrate even more serious situation. "Leading environmental factors which determine health quality of the population living in Aral Sea region are: dry, continental climate; high mineralization, pollution and deficit of drinking water, and also desertification of territories. In these conditions, risk of cancer, tuberculosis, and diabetes has increased."<sup>49</sup>

"Kazakhstan is facing challenges in restructuring its healthcare system and its health outcomes are lagging behind its rapidly increasing income. At 68 years, the life expectancy is at the level of EU-15 back in 1950."<sup>50</sup> This is taking place, despite of increase of the portion of GDP spent on public health.<sup>51</sup>

<sup>46</sup> The Fifth national report ..., p.55: <http://www.cbd.int/doc/world/kz/kz-nr-05-en.pdf>.

<sup>47</sup> Report on "Preparation of the National Report...", p.48.

<sup>48</sup> 40 thousand children suffer from the high level of environmental pollution in Kazakhstan: <http://www.kursiv.kz/news/details/obshestvo/ot-vysokogo-urovnya-zagryazneniya-okruzhayush-hej-sredy-v-kazaxstane-stradaet-40-tys-detej>, February 1, 2013.

<sup>49</sup> Report on "Preparation of the National Report...", p.59-60.

<sup>50</sup> Strategy for Kazakhstan...:

<http://www.ebrd.com/downloads/country/strategy/kazakhstan-strategy-2013.pdf>; p.15.

<sup>51</sup> WHO European Region: Kazakhstan statistics summary:

<http://apps.who.int/gho/data/node.country.country-KAZ>.

## Conclusion

The main result of deterioration of the ecological situation is limitation of public access to national natural resources, in particular, to primary needs resources: drinking water, quality food, clean air, and recreational resources. Lowering of quality of life accompanied by massive violations of human rights on favorable environment more and more often becomes a source of public discontent and social tension, causes public protests. One of the examples is a public movement formed in 2012-2013 in defense of Kok-Zhailau Hollow, central part of Ile-Alatau National Park, located near the city of Almaty.<sup>52</sup> The public protests against the plans of construction of a mountain ski resort on the territory of the national park.

Lack of a clear environmental policy in the country lead to the situation when big businessmen oriented on extraction of natural resources and global budget programs together with interested officials became a force which forms environmental legislation and state programs in this sphere. “Equidistant position of all market players from the power” was not achieved.<sup>53</sup> Commercial structures transfer environmental costs on tax-payers, remake the legislation for specific projects, and even do not try to hide it. According the Environmental Performance Index prepared in 2012 by the University of Yale, Kazakhstan takes the 129<sup>th</sup> place out of 132 countries studied.<sup>54</sup>

Public officials often admit the seriousness of the situation: “Irrational utilization of natural resources, environmental pollution and, consequently, deterioration of the quality of the environmental and human health, also caused by the forced industrial and innovative development of our country, at the current stage, require implementation of more effective triggers for lowering the anthropogenic pressure on the environment.”<sup>55</sup> But other than the admission, no actions are being taken.

Decree of the president No.1241 dated on December 3, 2003, “About Concept of environmental safety of the Republic of Kazakhstan on 2004-2015” lost its validity by a decree of the president No.47 dated on April 13, 2011. Goals made in the Concept were not achieved which became obvious already in 2011.

<sup>52</sup> Protect Kok-Jailau, one of the most popular places of Ile-Alatau National Park:

<http://www.greensalvation.org/index.php?mact=News,cntnt01,detail,0&cntnt01articleid=328&cntnt01detailtemplate=news02detail.tpl&cntnt01returnid=51>.

<sup>53</sup> [http://ru.wikipedia.org/wiki/%D0%9F%D1%83%D1%82%D0%B8%D0%BD\\_%D0%92%D0%BB%D0%B0%D0%B4%D0%B8%D0%BC%D0%B8%D1%80\\_%D0%92%D0%BB%D0%B0%D0%B4%D0%B8%D0%BC%D0%B8%D1%80%D0%BE%D0%B2%D0%B8%D1%87](http://ru.wikipedia.org/wiki/%D0%9F%D1%83%D1%82%D0%B8%D0%BD_%D0%92%D0%BB%D0%B0%D0%B4%D0%B8%D0%BC%D0%B8%D1%80_%D0%92%D0%BB%D0%B0%D0%B4%D0%B8%D0%BC%D0%B8%D1%80%D0%BE%D0%B2%D0%B8%D1%87).

<sup>54</sup> 2012 Environmental Performance Index (EPI):

[http://epi.yale.edu/files/2012\\_epi\\_summary\\_for\\_policymakers.pdf](http://epi.yale.edu/files/2012_epi_summary_for_policymakers.pdf).

<sup>55</sup> Strategic Plan of the Ministry of Environmental Protection of the Republic of Kazakhstan for 2011-2015. Adopted by the Statement of the Government of the Republic of Kazakhstan No.98 dated on February 8, 2011.

“Program on fighting desertification in the Republic of Kazakhstan on 2005-2015” lost its validity by a statement of the government No.162 dated on February 19, 2008. New program was not adopted yet.

Decree of the president “About the Concept of transitioning of the Republic of Kazakhstan to sustainable development on 2007-2024” lost its validity, in accordance with the decree of the president No.47 dated on April 13, 2011. Thus, groundlessness of the concept was confirmed.

A Branch Program “Zhassyl damu” was adopted in 2010. Its purpose is “creation of conditions of conservation and recovery of natural ecosystems.” The program goals are “development of “green economy;” reduction of anthropogenic impact on the components of the environment and health; preservation and recovery of natural ecosystems...”

In January 2013, Counting Committee noted that “at the intermediate stage, implementation of the Branch Program “Zhassyl damu” on 2010-2014 is not effective enough; there is no necessary coordination for implementation of the Program measures between responsible state officials.

Specific measures on lowering of environmental pollution level, creation of mechanisms of ecological sustainable development, transition to regulation based on the best accessible technologies for large industrial enterprises, protection and reproduction of forests are not implemented. Total cost of identified violations of the budget requirements and other legislative provisions is 7.5 billion tenge.”<sup>56</sup>

Only time will show how long the Concept of transitioning of the Republic of Kazakhstan to the “green economy” will last.

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<sup>56</sup> <http://esep.kz/rus/showin/article/1618>, January 17, 2013.

See also: [http://online.zakon.kz/Document/?doc\\_id=31508108&search=%D0%96%D0%B0%D1%81%D1%8B%D0%BB%20%D0%94%D0%B0%D0%BC%D1%83&spos=1&tSynonym=1&tS hort=1&tSuffix=1](http://online.zakon.kz/Document/?doc_id=31508108&search=%D0%96%D0%B0%D1%81%D1%8B%D0%BB%20%D0%94%D0%B0%D0%BC%D1%83&spos=1&tSynonym=1&tS hort=1&tSuffix=1).