Middle-East Journal of Scientific Research 18 (2): 154-157, 2013
ISSN 1990-9233

DOI: 10.5829/idosi.mejsr.2013.18.2.12397

Sustainability Development-New Innovation Vector in the Republic of Kazakhstan

Ainura Toyakovna Omarova and Dinara Raxmangazievna Sihimbayeva

Karaganda Economic University of Kazpotrebsoyuz, Karaganda, Kazakhstan

Abstract: This article examines the sustainable development and also human resource management in Kazakhstan. Defines the basic principles of environmental sustainability strategy. Sustainable development is fairly new term, but it often comes into use in the world of big business. In that article we disclosed the main problems in this area. Special attention is devoted to the development of environmental management and environmental protection in the Republic of Kazakhstan.

Key words: Sustainable development · Sustainable management · Renewable resources

INTRODUCTION

Environmental management is among the greatest threats to the well-being and possibly the long-term survival of humankind and they present profound challenges to many other species. Is therefore crucial that scholars and policy-makers do all that they can to understand the human relationship to the environment and the potential means to the mitigating our impact on the planet.

Much has been done to do this, but it is clear from ongoing global pollution, overuse of natural resources and the failure of international regimes to adequately address most environmental problems, that the trend is-despite some successes-very much in the wrong direction. Species and habitants are being destroyed, water and air quality are deteriorate unabated in many parts of the world, greenhouse gas emissions grow even as signs of climate change become increasingly unmistakable and dangerous-in addition to a huge range of other problems arising from industrialization and modern life. Given our failure to stop, let alone reverse, this trend, it seems reasonable and even imperative to look of new ways of understanding what is happening and why and find new ways for people and their governments to respond to environmental problems [1].

The fundamental definition of sustainable development is far from giving tangible indications of corporate management. There are other definitions, which explain some imperatives-human behavior should agree with the natural global material and energy balance, it should be possible that regional and local environment factory are assimilated and biodiversity as well as landscapes should be protected [2].

Let's consider the main dimensions, which are influenced to the sustainable development:

- Maintenance of capital and ecological performance. The use of materials and energy must take into consideration the natural capacities of the environment. Additionally the decomposition rate of renewable resources should not go beyond the rate of regeneration. In business, long-term entrepreneurial activities are based on return / income rather than on capital. This principal gains importance under social and ecological aspects of business, if the objective is that future generations will have similar chances to be successful too.
- Environmental dimensions. Non-renewable resources must be used only to the extent that a physically equivalent compensation is possible either in the form of renewable resources (i.e. substitution) or as an increased productivity in processing non-renewable resources efficiency [3].
- Long-term orientation: By integrating short-and long-term objectives, those business activities which are hardly realized at present because as the prevailing emphasis on short-term financial results

Corresponding Author: Omarova, Karaganda Economic University of Kazpotrebsoyuz, Akademicheskaya 12 street, 100009 Karaganda, Kazakhstan.

shall also become possible. This effect shortens the planning, decision and success horizons and undermines in many cases the chances of profits in the future, because there are not enduringly sustainable.

- Triple bottom line. Corporate success is sustainable when it meets economic, ecological and social criteria. In this way a company is legitimated not only for its relevant stakeholders, but it also stabilizes or increases the values in all of these three dimensions. There are various definitions, placing particular emphasis on social solidarity, economic performance and environmental responsibility as similar target dimensions of sustainable development [4].

Main Part: The first Environmental Performance Review of Kazakhstan in 2000 concluded that environmental information in the country was a very weak link in the management chain. Since that time, there has been an increasing understanding in Kazakhstan that environmental monitoring and information systems are crucial for environmental policy. Decision makers at the national, oblast and local levels have started looking for the best data and good-quality assessments to prevent and reduce adverse environmental impacts that risk increasing with the overall growth of the economy and particularly of the most polluting industries. These adverse impacts on human health and ecosystems are observed in various regions and modern tools need to be applied to understand, inter alia, the driving forces behind these developments, cause-effect relationships and the effectiveness of response measures [5].

Kazakhstan has made progress in improving public access to environmental information and involving the public in environmental decision-making. Pressure by a more and more informed civil society on authorities and polluting enterprises is helping to raise the awareness of politicians as well as leaders of business and industry of the need to improve the environment and to achieve cost-effectiveness, at the same time. Nevertheless, producing factual timely and easy-to-understand assessments of the state of the environment remains a great challenge for Kazakhstan.

The purpose of the research is to improve the environment situation in Kazakhstan in a right way, to understand the main problems of sustainable development and sustainable management.

Inference: Over the past two decades, the structure of the regulated community in Kazakhstan has evolved from relatively homogenous, with a handful of large State enterprises, towards heterogeneity and a numerical prevalence of SMEs. At the same time, the number of large enterprises seems to have stabilized at around 2,000 (Table 1).

The regulated community is clustered based on a risk assessment scheme, established by the Ministry of Health. Environmental impacts are relatively well mapped for the large industry that remains, according to the MEP data, the greatest contributor to pollution (for instance, DPIMR estimated that just 17 enterprises are responsible for 72% of air emissions in the country). The environmental significance of SMEs is analyzed to a very limited extent,

Table 1: Number of registered enterprises (2008-2011 for the 1st of January)

	2008	2009	2010	2011
Small	2,014	2,011	2,026	2,049
Medium	10,674	10,700	10,676	11,512
Large	170,108	177,334	195,707	213,347

Source: Statistical Yearbooks of Kazakhstan, 2008-2011 [5,6,7,8]

Table 2: Number of registered enterprises by sector (2011)

Sector	Small	Medium	Large	Total
Agriculture, hunting and forestry	11,173	833	267	12,273
Fishing, fish breeding	364	15	4	383
Mining	1,271	112	76	1,459
Manufacturing	16,563	842	315	17,720
Production/distribution of electricity, gas, water	1,324	203	117	1,644
Construction	23,089	593	163	23,845
Trade, repair, personal, household goods	76,074	585	71	76,730
Hotels, restaurants	2,624	83	17	2,724
Other sectors	80,865	8,246	1,019	90,130

Source: Statistical Yearbook of Kazakhstan 2011 [5,6,7,8]

Table 3: Industrial pollution charges for waste generation, tenge per ton

Region	Category 1 Extremely dangerous	Category 3 Moderately dangerous	Category 5 Non toxic solid waste
Akmola	4,349	544	136
Aktuibinsk	10,067	1,258	315
Almaty oblast	5,273	659	165
Atyrau	41,020	5,127	1,282
East Kazakhstan	4,006	501	125
Karaganda	3,835	479	120
Kostanay	2,739	342	86
Kyzylorda	5,033	629	157
Mangistau	12,121	1,515	379
North Kazakhstan	3,321	415	104
Pavlodar	4,383	548	137
South Kazakhstan	4,622	578	145
West Kazakhstan	7,122	890	223
Zhambyl	4,109	514	128
City of Almaty	26,365	3,296	824
City of Astana	4,280	535	134
Country average (unweighted)	8,915	1,114	279

Source: Order of Minister of Environmental Protection of Kazakhstan the 1st of December 2012 [8,9]

Table 4: Revenues from pollution charges and fines

Item	2006	2007	2008	2009	2010	2011	2012
Pollution charges	4,50	5,70	6,65	10,58	13,80	25,52	26,48
Fines	0,16	0,18	0,32	1,39	1,59	1,56	4,37
Total	4,66	5,88	6,97	11,97	15,39	27,08	30,85
Total as per cent of GDP	0,20	0,20	0,20	0,30	0,30	0,40	0,30

Source: Ministry of Environmental protection, 2012 [10]

even though they predominate numerically and more than half belong to sectors with potential environmental impacts (see Table 2). Compliance patterns within various segments of the regulated community and factors that influence compliance are even less studied.

The use of economic instruments for environmental protection in Kazakhstan has continued to be dominated by pollution charges that are levied on a very large number of air and water pollutants and different types of waste generated in industry. Product charges play only a marginal role. Subsidy schemes for promoting the diffusion of less pollution-intensive technologies, which were mentioned in the Law of Environmental Protection (LEP) of 1997, have not been implemented.

There is little evidence that the system of pollution charges has created significant incentives for reducing pollution. This is reflected in the Kazakh Government's 2007-2009 Action Plan on the Implementation of the Concept of Transition to Sustainable Development, which calls for the:

- Effective application of the "polluter pays" principle;
- Strengthening of the incentive function of pollution charges and fines;
- Promotion of waste recycling.

Pollution charges are in principle a key instrument for reducing the environmental impacts of economic activity in Kazakhstan. These payments are based on environmental permits, which specify for each enterprise ELVs (emission limit values) for air and water pollutants and the maximum volume of generated waste.

In 2012, revenues from pollution charges amounted to 26.5 billion tenge ($210 million), up from 4.5 billion tenge in 2006 (Table 4). The main factor behind this surge has been the strong growth of activity in industry, notably in the oil sector and the associated increased volumes of emissions of air and water pollutants and generation of waste. Increases in pollution charge rates and improved monitoring and revenue collection also played a role. But the relative importance of these factors cannot be identified given lack of relevant information. In this context, also noteworthy is the sharp rise in revenues from pollution charges by nearly 90 per cent in 2010 as compared with 2009. The collection of revenues is based on self-declaration of emissions by enterprises and periodic inspections by environmental and tax authorities. There is no information on the potential gap between actual and declared emissions and the related differences in revenues from pollution charges.

Revenues from pollution charges are channeled to local budgets, but they are not earmarked for financing of environmental protection measures.

CONCLUSIONS

The system of pollution charges in Kazakhstan is quite complex and administratively onerous. A huge number of air and water pollutants are subject to payment of emission charges. Emission limit values (ELVs) are not benchmarked on sector-specific best available technologies (BAT), but rather on health and sanitary standards, which are reflected in local/regional MACs of pollutants. The calculation of charges lacks transparency. There are no specific pollution charges for individual major pollutants, only for an aggregate of air or water emissions, measured in terms of so called "conditional tons". The criteria for determining specific levels of pollution charges are not known and there appears to be a large element of discretion. Also, want to add that the sustainable development must be seen as the task of strategic business management.

REFERENCES

1. Agency of Statistics of the Republic of Kazakhstan. Annual report of 2012. www.stat.kz.
2. Agency of Statistics of the Republic of Kazakhstan. Social and economic development of Kazakhstan of 2011. www.stat.kz.
3. Colombo, P., P.D. Kalb and J.H. Heiser, 1997. Process for the Encapsulation and Stabilization of Radioactive Hazardous and Mixed Wastes. U.S. Patent No. 5,678,23.
4. Kalb, P.D., S. Vagin, P.W. Beall and B.L. Levintov, 2002. Sustainable Development in Kazakhstan: Using Oil and Gas Production by-Product Sulfur for Cost-Effective Secondary End-Use Products, pp: 30-32.
5. Kalb, P.D., L.W. Milian, S.P. Yim, R.S. Dyer and W.R. Michaud, 1997. Treatability Study on the use of By-Product Sulfur in Kazakhstan for the Stabilization of Hazardous and Radioactive Wastes. Proceedings of the American Chemical Society Symposium on Emerging Technologies in Hazardous Waste Management IX, Pittsburgh, PA, pp: 80-83.
6. Kalb, P.D., D. Melamed, B. Patel and M. Fuhrmann, 2002. Treatment of mercury containing waste. U.S. Patent No., 6,399,849, pp: 75-78.
7. Kazakhstan Research Institute on Ecology and Climate, Almaty 2011. National Report on the State of Environment.
8. Ministry of Environmental protection of Kazakhstan. Statistical report of 2011 year. www.eco.gov.kz.
9. Ministry of Environmental protection of Kazakhstan. Conception of the sustainable development of the Republic of Kazakhstan. www.nature.kz.
10. Ministry of Environmental protection of Kazakhstan. About financing the environmental protection of 2005. www.eco.gov.kz.