



24th DAAAM International Symposium on Intelligent Manufacturing and Automation, 2013

Sustainable Development, Quality Management System and Environmental Management System in Slovak Republic

Miroslav Rusko, Jozef Sablik, Petra Marková*, Manfred Lach, Stefan Friedrich

Faculty of Materials Science and Technology in Trnava, Trnava 91724, Slovakia

Abstract

Growing load and deterioration of the environment can be interpreted as a result of some external effects interventions. While the positive externalities influence the positive production and utilization functions of other subjects, the negative externalities influence the negative ones. Both types of external effects can act as partial or global externalities. Linking of environmental issues to economy and finance is an important sphere.

© 2014 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).
Selection and peer-review under responsibility of DAAAM International Vienna

Keywords: environment; quality; management

1. Introduction

Growing humane population raises its material and energetic consumption and threatens overrun of carrying-capacity of our planet. Global environmental and safety problems manifest their retrogressive trend. In the present there are carried on discussions at all levels of management about safety implications of climatic changes and migration, about terrorism, about cybernetic safety, about dangerous diseases transfer etc. There is an effort to analyze situation arisen or potential risks and to adopt adequate measures.

The topic of climatic changes is becoming increasingly urgent. It is implied that the cause behind environmental degradation is mainly energy production, while little or no attention is paid to its use. It exists the European Emissions Trading Scheme (EU ETS) is considered a flexible policy instrument to cut greenhouse gas (GHG) emissions in order to achieve Kyoto's reduction targets. The ETS is a market-based policy instrument based on the cap-and-trade system which offers, in theory, the opportunity to meet environmental targets in the most cost-effective way [4].

* Corresponding Author: 24392_Markova_Petra . Tel.: +421906068149;
E-mail address: petra.markova@stuba.sk

“Our Common Future”, a report published by the World Commission for Environment and Development presided by Gro Harlem Brundtland, defines sustainable development as the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

The report does not want to forecast continuously worsening environment, on-going poverty and difficulties in an increasingly polluted world where resources will continue to disappear. In the report, the World Commission presented its urgent and pressing warning based on the latest and best scientific evidence that the time to implement necessary measures has come to ensure resources for this and future generations. The report does not offer a detailed implementation plan but has showed a path where world’s nations may extend their mutual cooperation [11]. Sustainable development is incorporated in the Slovak legal system as the kind of development that preserves the possibility for current and future generations to satisfy their basic needs while not reducing the natural diversity and maintaining the natural functions of ecosystems (Article 6 of Act No. 17/1992 Coll. on the environment).

First of all, organizations try to achieve competitive advantage in order to make more profits, gain market shares and increase their success in a long period perspective [7].

Organizations of all kinds are increasingly concerned with achieving and demonstrating sound environmental performance by controlling the impacts of their activities, products and services on the environment, consistent with their environmental policy and objectives. They do so in the context of increasingly stringent legislation, the development of economic policies and other measures that foster environmental protection, and increased concern expressed by interested parties about environmental matters and sustainable development.

2. Methods and materials used for research

Between basic requirements for a systematic approach to management in Slovakia belong generic requirements of international standards:

- ISO 9001 Quality Management System,
- ISO 14001 Environmental Management System,
- OHSAS 18001 Healths and Safety Management System.

Revision of standards of the Quality management system, based on process management, required a change in the assessment of individual systems and new approach of the auditors in auditing of management systems. It is important that was unified and updated the terminology used in Quality management systems and in the standards of environmental management in Slovakia.

3. Sustainable development, quality management system and environmental management system in Slovak Republic

3.1. Environment and sustainable development

In recent past, in spite of the fact of non-existence of any environmental movements, there was functioning a system of closed cycle of matters in the range of rural settlement without any distinct externalities (from foodstuffs to clothing). By the start of industrialization there emerged „waste“ as an problem – whether as a secondary product of production processes or in households. According to the predetermined economic conditions there was functioning a recycling and reversible system without any need of visual regulation. In the present we have, as a result of the globalization, often negative attack of society on individual parts of environment. It is related also to a need for legal regulation directed to the elimination of unfavourable influences. Besides the legal regulation there play an important role both edification and medial activities.

When considering the planet Earth, the current human activities are of a global nature. Significant problems include worsening of the environmental conditions. Humanity nowadays has the most modern tools in its whole history at its disposal to influence the environment (both in the positive and negative sense). Unlimited economic growth especially in the states with developed economies, the so-called countries of the rich North, and an exponential growth of human population bring along distortion of certain systems all throughout the planet. The present human civilisation affects the air, climate, soil, water, circulation of substances, live organisms as well as the

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات