ITJ | The International Tax Journal

# The role of the Environmental Management System (EMS) in promoting sustainable environmental development and its applicability according to the requirements of the International Standard (ISO 14004): A case study of the company "SANIAK" (BCR) in Ain Elkebira

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**Abstract---**This study provides an analysis and evaluation of the extent to which SANIAK Company in Ain Elkebira applies and documents its Environmental Management System (EMS) in accordance with the requirements of the latest international environmental management standard (ISO 14004:2004). The aim is to determine the company's contribution to mitigating environmental pollution through continuous improvement in pursuit of sustainable environmental development. The study concludes that there is no significant gap between the environmental system implemented at the company under investigation and the requirements of the guiding standard for Environmental Management Systems.

**Keywords---**Environmental Management System, Sustainable Environmental Development, Requirements of the International Standard (ISO 14004).

## Introduction

Recent studies have emphasized the growing and evident international interest in environmental management systems (EMS), given their significant role in promoting sustainable environmental

**How to Cite**:
Guechi, L., & Kabani, F. S. (2025). The role of the Environmental Management System (EMS) in promoting sustainable environmental development and its applicability according to the requirements of the International Standard (ISO 14004): A case study of the company "SANIAK" (BCR) in Ain Elkebira. *The International Tax Journal*, *52*(5), 1742–1753. Retrieved from https://internationaltaxjournal.online/index.php/itj/article/view/191

The International tax journal ISSN: 0097-7314 E-ISSN: 3066-2370 
Submitted: 12 January 2025 | Revised: 02 February 2025 | Accepted: 20 May 2025

development. This is primarily driven by the increasing levels of environmental and legislative awareness, both of which contribute to continuous environmental improvement and the enhancement of environmental performance.

The significance of this research stems from the importance of the Environmental Management System (EMS), which lies in identifying the sources and impacts of pollution, as well as the requirements and measures necessary to address, eliminate, and prevent their adverse effects, while providing appropriate solutions. This is guided by the international standard for environmental management (ISO 14004:2004), which necessitates consideration of the environmental factors that must be observed for the implementation of an integrated EMS and for maximizing the benefits of sound environmental management.

This research **aims** to explore **the environmental management** system and the effective role it plays in protecting the environment, adhering to laws, regulations, and environmental conditions, thereby ensuring continuous improvement in environmental performance to achieve comprehensive and sustainable development.

Based on this environmental orientation, the following question can be posed: **What is the role of the Environmental Management System in promoting sustainable environmental development? and to what extent is it implemented in accordance with the requirements of the international standard (ISO14004) at the company "SANIAK" (BCR) in Ain Elkebira?**

**Research Hypotheses:**
**First Hypothesis:** The environmental management system plays a role in activating sustainable environmental development.
**The Second Hypothesis:** The industrial enterprise of **the company **"SANIAK" (BCR) in Ain Elkebira** seeks to implement an Environmental Management System in accordance with the requirements of the international standard (ISO 14004) in order to improve its environmental performance.
The research problem can be addressed from two perspectives:

- **The theoretical perspective, which includes:** the concept of the Environmental Management System, international standards for environmental management, the importance and benefits of the Environmental Management System, and the requirements of the international guideline standard ISO 14004.
- **The practical aspect, which includes:** an introduction to the company under study, diagnosis and analysis of the results, and recommendations.

**First: The Theoretical Aspect:**

- **Definition of the Environmental Management System (E.M. System):**

**William R. Mangum (2001)** defined environmental management as: the procedures and control measures at the local, regional, or global level established for the protection of the environment. It involves the rational use of available natural resources and their sustainable utilization[1].

**Thomas (2005) and others** defined environmental management as the organizational structure, responsibilities, policies, procedures, operations, and resources employed for environmental protection and the management of environmental matters. The environmental management system determines the organization's philosophy toward environmental issues, establishes objectives for environmental programs, and develops initiatives to enhance environmental performance[2].

The International Organization for Standardization (ISO) (2007) defined environmental management as: a part of the overall management system that includes the organizational structure, planning

activities, practices, procedures, processes, and resources related to the development, implementation, review, and maintenance of environmental policy, forming an integrated system aimed at reducing and preventing pollution[3].

Based on the above, it can be stated that the Environmental Management System is a systematic framework that aims to integrate environmental management into the activities, services, and operations of various establishments. It is subject to a continuous cycle of planning, implementation, review, and improvement of the actions undertaken by organizations in fulfilling their commitments to environmental requirements. The international standards for environmental management systems, namely ISO 14000, ISO 14001, and ISO 14004, are considered among the most important mechanisms for achieving sustainable environmental development.

- **The Importance and Benefits of the Environmental Management System (EMS)**

The Environmental Management System is considered one of the important and modern scientific innovations that emerged with the aim of further developing and improving environmental protection while ensuring balance with its requirements. This is achieved by providing mechanisms through which environmental performance is monitored and improved[4]. The importance and benefits of the Environmental Management System can be summarized as follows[5]:

1. Achieving alignment between legislative work, health and social regulations, and the environmental performance of organizations.
2. Disclosing the organizations' capacity and readiness for environmental assessment.
3. Reducing pollution and conserving raw materials in a way that contributes to cost reduction.
4. Enhancing the organization's image and reputation before suppliers and stakeholders.
5. Improving employees' morale and efficiency with regard to their responsibilities in protecting the environment.
6. Intensifying market competition as a result of increased organizational creativity.
7. Enhancing the ability of senior management to comprehend and respond to urgent situations and crises in the environmental domain.

Accordingly, it can be stated that the significance of the international environmental standard lies in its role as a comprehensive framework for environmental management and the improvement of environmental performance. It also promotes the efficient use of resources in alignment with the defined objectives of organizations, thereby strengthening their competitiveness and ensuring their continuity in the business arena through ongoing improvements to their environmental practices, protecting them from pollution, and ultimately achieving sustainable environmental development.

- **International Standards for Environmental Management Systems (I.S.E.M.)**

Environmental pollution has become a critical issue with increasingly severe negative impacts on human health. In response, the ISO 14000 series of standards was introduced as a comprehensive guide and framework for environmental management and auditing systems. Developed by the International Organization for Standardization (ISO), this series of international standards aims to enhance environmental performance across various production and service sectors and to promote the efficient use of natural resources. Therefore, organizations are required to implement these standards to ensure that their performance aligns with global specifications for environmental protection and performance improvement. The following table presents the classification of international environmental management standards with respect to environmental management systems and auditing.

Table 01: Classification of Environmental Management System Standards

| International Standards for Environmental Management System | |
|---|---|
| Standards of Environmental Management Systems | Environmental Auditing Standards |
| . ISO 14020:2000:<br>Environmental labels and Advertising: General principles.<br>. ISO 14021:1999:<br>Labels and Environmental Advertising: Self-Environmental Advertising.<br>. ISO 14022:1999:<br>Environmental Labels and Advertising: Determining the Conditions for Using Environmental Symbols.<br>. ISO 14023:1999:<br>Labels and Environmental Advertising: Presenting a Framework for the Use and Verification of Environmental Symbols.<br>. ISO 14024:1999:<br>Environmental Labels and Advertising: Type 1 Environmental Labels, Principles and Procedures.<br>. ISO 14040:1997:<br>Environmental Management: Life Cycle Assessment: Principles and Framework.<br>. ISO 14041:1998:<br>Environmental Management: Life Cycle Assessment: Defining the Goal, Scope, Inventory Analysis.<br>. ISO 14042:2000:<br>Environmental Management: Life Cycle Assessment: Life Cycle Impact Assessment.<br>. ISO 14043:2000:<br>Environmental Management: Life Cycle Assessment: Interpretation of the Life Cycle.<br>. ISO 14001:2004:<br>Aims to provide organizations with the elements of an effective environmental management system.<br>. ISO 14004:2004:<br>Aims to provide guidelines for organizations to improve the environmental management system. | . ISO 14010:1996:<br>Presentation of General Principles for Environmental Auditing.<br>. ISO 14011:1996:<br>Presenting audit procedures to determine compliance with the Environmental Management System audit standard.<br>. ISO 14012:1996:<br>Providing a guideline for the standard of qualifications for environmental auditing and rules.<br>. ISO 14013:2002:<br>Defining the general framework for managing an environmental auditing program.<br>. ISO 14014:2001:<br>Defining the core audit processes.<br>. ISO 14015:2001:<br>Environmental assessment of sites and organizations.<br>. ISO 19011:2002:<br>Audit Guidelines for Quality and Environmental Systems. |

Source: M. Rajaa Jassim Muhammad (2009), Environmental Management System According to the Requirements of the International Standard (ISO 14004) and the Possibility of Its Application: A Case Study of Almamouna Vegetable Oil Factory, Baghdad Journal of Economic Sciences, p. 140, adapted.

- **Requirements of the Environmental Management System** (ISO 14004:2004)

The standard ISO (14004:2004) is an international guidance standard that includes a set of requirements and organizational procedures focusing on continuous environmental improvement. It supports protection and pollution prevention efforts and provides the general framework upon which environmental management systems in organizations of all types can be based. This enables the enhancement of environmental management systems in line with the concept of sustainable

development. Therefore, it is considered a practical management guide and a reference that can be applied within an organization regardless of its size or type. This standard is based on five requirements:

1. **Commitment and Environmental Policy:** The environmental policy is considered an important principle in the guiding standard, as it clarifies the objectives related to the overall environmental performance of the organization, through which its environmental framework is defined. The responsibility for formulating the environmental policy rests with top management. This principle is built upon an interconnected set of fundamental requirements established by management as a methodology for implementing the environmental management system.
2. **Planning:** Accordingly, the scientific methodology is defined to achieve both gradual and fundamental improvements for environmental protection, and it also helps stakeholders implement the environmental policy related to the company's activities and anticipate its impacts[6].
3. **Implementation:** This principle focuses on the mechanisms for applying the Environmental Management System and the related requirements and capabilities needed to activate environmental roles and objectives. It includes: human and technical resources, responsibility and accountability, environmental motivation and awareness, knowledge, skills, and training. The standard (ISO 14004)
4. **Measurement and Evaluation:** This principle focuses on the continuous review of the environmental system, relying on a set of tools and methods that perform specific functions and help improve environmental performance. The process of measurement and evaluation is carried out according to the following steps[7]:
   - Measurement and Monitoring (Progressive Performance)
   - Information Management and Environmental Management System Records
   - Product Definition, Composition, and Data
   - Review of the Environmental Management System
5. **Review and Improvement:** This principle reveals the role of senior management in reviewing and evaluating the environmental system, as well as ensuring its continuous efficiency and effectiveness. The standard indicates that maintaining regular reviews by management at specified intervals can help identify the desired directions in environmental policy and objectives, and determine goals in light of the results or any unforeseen circumstances that may require change.

**Second: The Practical Aspect**

The diagnosis and analysis of the current state of the environmental management system in the company under study provides a clear picture of its ability to adopt the international guideline standard (ISO 14004) and implement its requirements, thereby determining the extent of the company's contribution to reducing environmental pollution.

- **Introduction to the Company under Field Study: SANIAK Company**

The company "SANIAK" is one of the three subsidiaries of the National Company for the Manufacture of Cutlery, Tableware, and Faucets BCR. SANIAK was established by Decree No. 32-420, published in the Official Gazette, issue No. 1858, dated 04/12/1982, within the framework of the restructuring of the Algerian institution. It is a joint-stock company (SPA), with the sole shareholder being the State since 1990.

On 01/01/2002, after another restructuring, three production branches emerged under the supervision of the General Directorate located in the Bizar Street in the city of Setif. These branches are:

- The springs, bolts, and faucets production branch in Ain El Kebira.
- The bolts and faucets production branch in Oued Rehiou.
- The knives production branch in Bordj Menaiel.

❖ **The Economic Importance of the BCR Group:**

The BCR company is of great economic importance, as it is the only one of its kind in Algeria that produces springs, taps, and knives. This importance can be summarized as follows:

- The availability of screws, taps, and knives in the national market, which has been the company's goal since its establishment.
- Its products (screws and bolts) are used in operating other production projects.
- Reducing the reliance on importing this type of product from abroad on the one hand, and on the other, enabling the company to obtain a quality certificate that allows it to compete internationally.

❖ **Diagnosis and Analysis of Results:**

➢ **Research Tools:** The research relied primarily on the case study method, as it is the research approach that brings us closer to the company's reality, since it combines observation and a personal interview with the Head of the Internal Audit Department at the company's General Directorate. To identify the gap between the company's current application and the requirements of the standard, the questions were formulated based on the foundational requirements of the Environmental Management System (EMS) as set out in the guideline standard (ISO 14004:2004), grouped into five basic principles: environmental policy and commitment, planning, implementation, measurement and evaluation, and review and improvement. Based on these principles, a set of questions was formulated for each, and for every question, seven ideal answers were defined, evaluated using the seven-point Likert scale as shown in the following table:

Table 02: Likert Scale

| Scale items | Fully implemented and fully documented | Fully implemented and partially documented | Fully implemented and undocumented | Partially implemented and fully documented | Partially implemented and partially documented | Partially implemented and undocumented | Not implemented and undocumented |
|---|---|---|---|---|---|---|---|
| Degree | 7 | 6 | 5 | 4 | 3 | 2 | 1 |

And the results were obtained based on:

1. **The weighted average to identify the gap in the extent of the company's application of the guiding standard (ISO 14004:2004)**, which focused mainly on the frequency of responses when calculating the result according to the following formula:

$$\mathbf{A} = \frac{\sum xifi}{\sum fi}$$

2. **The percentage of the checklist for each principle, which was calculated according to the following formula : %** $= \frac{\sum xifi}{\sum fi(7)}$

**Diagnosis and analysis of the results:** intending to determine the company's ability to apply the guideline standard and identify the degree of conformity or discrepancy between the actual situation and the requirements contained in the standard, and through analyzing the responses provided in the questionnaire by the concerned parties in the surveyed companies, the results were as follows:

Table 03: Evaluation Results for the Principle of Policy and Commitment

| | Requirements | **SANIAK Company in Ain Elkebira** | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **1. Environmental Policy and Commitment** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| $X_1$ | The company's commitment to an environmental policy and continuous improvement to prevent pollution | ✓ | | | | | | |

| | Requirements | SANIAK Company in Ain Elkebira | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **1. Environmental Policy and Commitment** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| $X_2$ | Compliance with legislation and laws | ✓ | | | | | | |
| $X_3$ | Documenting the environmental policy and communicating it to employees | ✓ | | | | | | |
| $X_4$ | Alignment of the environmental policy with the scale of pollution and the impacts resulting from its activities | | ✓ | | | | | |
| | Weights | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | Frequency | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| | Result | 21 | 6 | 0 | 0 | 0 | 0 | 0 |
| | The rate of the level of implementation and documentation of the requirements clauses | 27÷4=6,75 | | | | | | |
| | Percentage | 17÷4(7)=60,71% | | | | | | |
| | Gap | 7-6,75=0,25 | | | | | | |
| | Percentage | 39,29% | | | | | | |

Source: Prepared by the researcher based on exploratory studies

From the above table, it appears that the average level of implementation of the policy and commitment requirement items in the company reached 6.75, with a percentage of 60.71%. The gap between actual implementation and the standard's requirements was estimated at 0.25 out of 7 that is., 39.29% at the company level. This confirms the company's orientation toward implementing an environmental management system.

Table 04: Evaluation Results of the Planning Principle

| | Requirements | SANIAK Company in Ain Elkebira | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **2. Planning:** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| $X_5$ | Striving to identify the environmental impacts resulting from activities and operational processes | ✓ | | | | | | |
| $X_6$ | Defining the executive procedures in line with the legal requirements for these impacts | | ✓ | ✓ | | | | |
| $X_7$ | Documenting environmental objectives and goals | ✓ | | | | | | |
| $X_8$ | Establishing an environmental management program | ✓ | | | | | | |
| | Weights | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | Frequency | 3 | 1 | 1 | 0 | 0 | 0 | 0 |
| | Result | 21 | 6 | 5 | 0 | 0 | 0 | 0 |
| | The average level of implementation and documentation of the requirements clauses. | 32÷5=6,4 | | | | | | |
| | Percentage | 32÷5(7)=91% | | | | | | |
| | Gap | 7-6,4=0,6 | | | | | | |
| | Percentage | 9% | | | | | | |

Source: Prepared by the researcher based on exploratory studies

According the table above, it is shown that the average rate of implementation of the planning requirement clauses in the company under study reached 6.4, with a percentage of 91%, which is considered very high. The gap between the actual implementation and the requirements of the standard is estimated at 0.6 that is 9% at the company level. This confirms the company's attention to this

principle in light of its future expectations regarding environmental management, with the aim of improvement and reducing the negative impacts resulting from its activities.

Table 05: Evaluation Results of the Implementation Principle

| | Requirements | **SANIAK Company in Ain Elkebira** | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **3. Implementation:** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| $X_9$ | The company works on implementing and monitoring the environmental system | ✓ | | | | | | |
| $X_{10}$ | It is concerned with specialized training for employees in the environmental field | | | | | | | |
| $X_{11}$ | The company provides appropriate procedures for monitoring environmental impacts both internally and externally. | | ✓ | | | | | |
| $X_{12}$ | The company applies procedures for documenting and monitoring its environmental system. | | | | ✓ | | | |
| $X_{13}$ | The company controls operations and activities related to pollution. | | | | | ✓ | | |
| $X_{14}$ | The company periodically updates its environmental procedures. | | | | | ✓ | | |
| | Weights | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | Frequency | 1 | 1 | 0 | 1 | 2 | 0 | 0 |
| | Result | 7 | 6 | 0 | 4 | 6 | 0 | 0 |
| | The average level of implementation and documentation of the requirements clauses. | 23÷5=4,6 | | | | | | |
| | Percentage | 23÷3(5)=65,71% | | | | | | |
| | Gap | 7-4,6=2,4 | | | | | | |
| | Percentage | 34,29% | | | | | | |

Source: Prepared by the researcher based on exploratory studies

It is clear from the above table that the average rate of implementing the application requirement clauses in the company under study has reached 4.6, with a percentage of 65.71%, which is considered a good rate. The gap between the actual implementation of this principle and the requirements of the standard is estimated at 2.4 out of 7 that is 34.29% at the company level. This confirms the company's efforts to apply this principle with the aim of improvement and reducing this gap in order to achieve a healthy environment.

Table 06: Evaluation Results for the Principle of Measurement and Evaluation

| | Requirements | **SANIAK Company in Ain Elkebira** | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **4. Measurement and Evaluation:** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| $X_{15}$ | The company adopts monitoring and measurement procedures. | | ✓ | | | | | |
| $X_{16}$ | The company has documented procedures for periodic review that comply with legislation and laws. | ✓ | | | | | | |
| $X_{17}$ | The company relies on records to document inspection and measurement results. | ✓ | | | | | | |
| $X_{18}$ | The company's management has a periodic | | ✓ | | | | | |

| | Requirements | SANIAK Company in Ain Elkebira | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **4. Measurement and Evaluation:** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | auditing program for its environmental system. | | | | | | | |
| | Weights | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | Frequency | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| | Result | 14 | 12 | 0 | 0 | 0 | 0 | 0 |
| | The average level of implementation and documentation of the requirements clauses. | 26÷4=6,5 | | | | | | |
| | Percentage | 26÷28=92,85% | | | | | | |
| | Gap | 7 – 6,5= 0,5 | | | | | | |
| | Percentage | 7,15% | | | | | | |
| | | | | | | | | |

Source: Prepared by the researcher based on exploratory studies

It is clear from the above table that the average level of application of the measurement and evaluation requirement items in the company under study has reached 6.5, with a percentage of 92.85%, which is a very high rate. The gap between the actual application of this principle and the standard requirements is estimated at 0.5 out of 7 that is 7.15% at the company level. This confirms the company's effort to implement this principle with the aim of continuous environmental improvement.

Table 07: Evaluation Results of the Principle of Review and Improvement

| | Requirements | SANIAK Company in Ain Elkebira | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **5. Review and Improvement:** | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| $X_{19}$ | The company conducts management reviews to always ensure the efficiency of the environmental system. | ✓ | | | | | | |
| $X_{20}$ | The company carries out reviews to guarantee the continued suitability and effectiveness of the system. | | ✓ | | | | | |
| $X_{21}$ | These reviews include a commitment to enforcing continuous improvement of the system. | | | | | ✓ | | |
| | Weights | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| | Frequency | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| | Result | 7 | 6 | 0 | 0 | 3 | 0 | 0 |
| | The average level of implementation and documentation of the requirements clauses. | 16÷3=5,33 | | | | | | |
| | Percentage | 16÷21=76,19% | | | | | | |
| | Gap | 7- 5,33=1,67 | | | | | | |
| | Percentage | 23,81% | | | | | | |

Source: Prepared by the researcher based on exploratory studies

The above table shows that the rate of implementation of the review and improvement requirement clauses in the company under study has reached 5.33, with a percentage of 76.19%, which is considered good. The gap between the actual implementation of this principle and the requirements of the standard is estimated at 1.67 out of 7 which is 23.81% at the company level. This confirms the company's effort to apply this principle with the aim of improvement and reducing this gap in order to achieve a healthy environment.

From the foregoing, the study reached the following results:

**First:** The company **SANIAK** pays great attention to the environmental dimension, which is evident through the company's efforts to comply with the international standard for the Environmental Management System. This is done to align its activities with the preservation of both the consumer and the environment, in addition to the proper management of waste and residues, their recovery, recycling, or sale. Waste management at SANIAK can be explained as follows:

1. **The legal obligations in "SANIAK" company**
   a. Given the great danger of some production wastes, such as hydroxide sludge (La boue Hydroxyde), which is produced from the physico-chemical treatment of polluted water or from metal surface treatment processes, the company works to fulfill all its legal obligations.
   b. Economic Importance: The company earns significant benefits by selling some of its waste, which includes: brass scrap, iron scrap, slag from molten metal, and used oils.
   c. Environmental Importance: The company adopts an environmental strategy based on studying the impact of its production operations on the internal and external environment, by establishing a program to control the flow of waste. Accordingly, it is embodied in strict administrative procedures, reinforced by a prevention and preparedness system for high-level hazard situations.
2. **Administrative and organizational management of waste:**
   a. **Administrative Management:** For the proper management of waste, the company follows the following administrative procedures:
      - **Documentation:** The company documents its waste by preparing forms, tables, and records, in order to define responsibilities as well as organizational procedures.
      - **Preparation of the Periodic Environmental Report:** The company prepares a periodic environmental report every three months at most, in implementation of the requirements of the environmental guideline specification, and this enabled the company to obtain the ISO (14001:2004) certificate from AFNOR-FRANCE on 10/06/2008.
   b. **Organizational Structure:** The company has not designated specific departments in its organizational structure for waste management, and this process falls within the company's regular management. The appropriate tasks for this purpose have been distributed as follows:
      - **Recoverable, saleable, or recyclable waste:** The stock management department is responsible for receiving it and recording it in the company's accounts as inventory, sales, or raw materials.
      - **Hazardous waste:** It is managed by the Security Department, and is stored in a warehouse under high surveillance, pending the government's decision to open a landfill center equipped for this purpose in Bir Elater, Tebessa Province. The percentages indicated in the table below refer to the waste resulting after the sorting and treatment process.

**Table 08: Waste after the sorting and treatment process.** The data is very old and needs to be updated.

| Waste | year 2006 | 2007 |
|---|---|---|
| Sold Waste | 6,45% | 1,13% |
| Recycled Waste | 56.63% | 59,17% |
| Stored Hazardous Waste | 0,0231% | 0,0175% |
| Regular Inventories | 37,07% | 5,39% |
| Total | 100% | 100% |

Source: Company documents

According to the table, it is clear that there is a noticeable decrease in the volume of waste in 2007 compared to 2006, which indicates an improvement in the company's environmental performance.

**Second:** The survey results confirm:

- The extent of interest in the environmental management system and its ability to adopt the international standard guiding specification (ISO 14004) and implement its requirements, where the gap between its actual application and its requirements ranges between 0.25 and 2.4 out of 7. Additionally, the percentage of the level of application and documentation of the requirement items ranges from 92.85% and 60.71%, and from this, the company's contribution to reducing the phenomenon of environmental pollution can be confirmed, striving to achieve sustainable environmental development, in recognition of the importance of the environmental management system.
- The company's strong focus on training activities and environmental quality, considering them as key factors in the success of environmental management and in enhancing employees' skills.

**Recommendations**

Based on the results of the study at **SANIAK** Company in Ain Elkebira, the following recommendations can be made:

- The institution must conduct comprehensive and continuous media campaigns that rely on all means of communication (internet, posters, radio, television, seminars, articles) in order to mobilize public opinion towards the necessity of protecting the environment at both the individual and collective levels.
- Preventing the dispersion of judicial responsibility over environmental cases, while empowering the competent authority with all the powers and authorities that enable it to shift from remedial measures towards effective preventive measures.
- Cooperation and coordination between ministries and the relevant authorities to identify environmental risks and their sources in order to control them.

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